OECD Assessment of the Statistical System and Key Statistics of Costa Rica

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September 2019

Foreword

The OECD Council decided to open accession discussions with Costa Rica on 9 April 2015. On 8 July 2015, the Council adopted a Roadmap for the Accession of Costa Rica to the OECD Convention [C(2015)93/FINAL] (the Roadmap) setting out the terms, conditions and process for accession. The Roadmap provides that in order to allow the Council to take an informed decision on the accession of Costa Rica, Costa Rica will undergo in-depth reviews by 22 OECD technical committees, including the Committee on Statistics and Statistical Policy (CSSP).

This technical detailed report has been produced at the request of Costa Rica and is based on the Secretariat's evaluation reports that were part of Costa Rica's accession review in the fields of statistics and statistical policy, dating from 6 September 2019.

In accordance with Costa Rica's Roadmap, CSSP agreed to declassify this detailed technical report and publish it under the authority of the Secretary-General, in order to allow a wider audience to become acquainted with its content. Publication of this document and the analysis and recommendations contained in the report do not prejudge in any way the results of the review of Costa Rica conducted by technical committees as part of Costa Rica's process of accession to the OECD.

This report was prepared by the OECD Statistics and Data Directorate, with the assistance of reviewers appointed by Members, i.e. Australia, Chile, and Italy. The reviewers made extensive demands for data and documentation on those responsible for official statistics in Costa Rica, primarily in the National Institute of Statistics and Censuses of Costa Rica (INEC) and the Central Bank of Costa Rica (BCCR). The authors would like to give a special thanks to the Costa Rican officials for the strong co-operation they have offered and the professionalism they have presented throughout this process.

This report was finalised in September 2019. It covers the situation at this date and is based on information made available to the OECD at that time, unless specified in a footnote. Any subsequent development or change is not taken into account.

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Executive Summary

1. In the Roadmap for the Accession of Costa Rica to the OECD Convention [C(2015)93/FINAL], the OECD Council requested the Committee on Statistics and Statistical Policy (hereafter CSSP) to carry out an accession review of Costa Rica in order to provide a formal opinion to Council evaluating Costa Rica's willingness and ability to implement the substantive OECD legal instrument within the CSSP's competence, as well as its policies and practices as compared to OECD best policies and practices in the area of statistics and statistical policy.

Legal and institutional framework for official statistics

2. The assessment of Costa Rica's legal and institutional framework for official statistics considers the laws, regulations, and policies governing the activities of all the major producers of statistics in its NSS, with the objective to determine whether it conforms with the principles and practices applied in OECD Members for the compilation and dissemination of official statistics.

3. The Costa Rican NSS is fairly decentralised compared to the systems of most OECD Members. INEC is the central agency within the NSS and the main producer of official statistics along with the BCCR, but more than thirty other national authorities direct the eighty-two official statistical activities listed in the 2015 Inventory of Statistical Operations. In this context, inter-institutional agreements play an important role in the production of official statistics in Costa Rica.

4. The current legal basis for the activities of INEC and the organisation and functioning of the NSS is Law No. 9694, passed on 29 May 2019 and amending the Law No. 7839 of 1998. The new law enforcement requires a regulation issued by Executive Power within a maximum period of 6 months, i.e. by 13 December 2019. This report therefore describes the legal framework in place in July 2019, including the expected changes resulting from the implementation of the amended legislation. The BCCR operates under the Organic Law of the Central Bank of Costa Rica (Law No. 7558). Finally, the national Code of Good Statistical Practice for Costa Rica was introduced by Decree in December 2014.

5. Although the Law No.7839 and No. 7558 explicitly guarantee the technical independence of INEC and BCCR as regards decisions on statistical norms, models, and formats to be used in producing and disseminating official statistics, and offer in-principle protection of statistical confidentiality, the reviewers identified in 2017 significant weaknesses and areas of improvements in the legal and institutional framework, in particular:

- Inadequate and insecure multi-annual financial and human resources for the production and dissemination of official statistics. In particular, the multi-annual funding of INEC's activities by the Budget Authority was not secured in practice and financing and the recruitment of staff needed to be negotiated every year. The recruitment of staff under long-term contracts was challenging for INEC as a result. An alternative source of funding came from the BCCR that has been a major contributor to the INEC budget over years. BCCR funding is provided under a multi-year framework agreement.
- INEC was at that time restricted in accessing some administrative records (tax data and data from the Costa Rican Social Security fund that are considered classified information) even though the statistical legislation in principle enabled access to and use of administrative data for the production of official statistics. This resulted

in duplication in maintaining the statistical business register, and inhibits combining administrative and survey data, or integrating sources in the production processes to improve quality, efficiency and robustness.

- The legal mandate to collect information for statistical purposes was not strong enough to ensure that INEC and the BCCR can always collect information required for the production of official statistics. Law No. 7839 provided for voluntary participation in statistical surveys and censuses conducted by INEC, and Law 7558 does not explicitly mandate the BCCR to collect data. These gaps hamstringed maintenance of the statistical business register and compilation of national accounts and balance of payments statistics.
- INEC is legally responsible for co-ordinating activities across the NSS. It relies on key instruments (Statistical programmes, including multi-year national plan for official statistics) and forty-nine inter-institutional agreements, twenty-four working committees, and three main regulations (National Code of Good Statistical Practice; regulation on the implementation of the classification ISIC Rev.4; and guidelines on data dissemination), and the INEC's internal dissemination policy. Improvements were deemed desirable towards an integrated NSS in which INEC statisticians work closely with other producers of official statistics, for example to implement the National Code of Good Statistical Practice, and decide on necessary improvement actions and means to monitor them. INEC's authority to implement standard statistical methods across the NSS and to establish a regular quality assurance process for statistics across the NSS needed to be increased, along with its resources to co-ordinate NSS statistical activities.

6. Recognising these challenges, INEC committed to plan changes aimed at creating a more process-oriented institution. These include:

- developing a quality management framework for statistics;
- implementing a revision policy;
- increasing users' engagement at various stages of the statistical production process;
- reinforcing NSS co-ordination;
- implementing and monitoring multi-year planning;
- establishing a web-platform for the NSS.

7. INEC developed the first sound national statistical plan for the period 2012-2016, and the second one for 2018-2022, in cooperation with other NSS entities. INEC also implemented efficient procedures and guidelines for disseminating data and metadata (in Spanish and in English) free of charge, as part of its corporate dissemination policy, and launched a corporate database promoting the use of standard statistical concepts and international classifications. Both INEC and the BCCR implemented a twelve-months-ahead advance release calendar with fixed and unchangeable release dates and times, a good practice which ensures transparency and strengthens the perceived independence of data dissemination. INEC also considers a reorganisation by end 2022.

8. INEC had also been working since 2015 on a comprehensive draft amendment to Law No. 7839 in consultation with other NSS entities. The draft amendment was presented to the Legislative Assembly in June 2017 and finally adopted without significant modifications on 29

May 2019. The amended law includes substantial revisions in the statistical legislation and addresses most of the issues mentioned above, including:

- Establishment of the NSS and role of the Board of Directors of INEC on its membership;
- Clarification in the responsibilities of the producers of official statistics, including the functions of INEC and the BCCR;
- An explicit and general provision to ensure adequate resources and long-term funding for INEC. The financing of INEC was extensively discussed during the legislative process and several options were debated before reaching a solution that essentially entails the financing of INEC by the annual Government budget, complemented by an annual transfer from the BCCR, resources collected in accordance with Article 40 of the Law No. 8228 (a levy on insurance premiums) and the revenues from the sales of products and services from INEC. Law No. 9694 therefore ensures a sustainable financing of the INEC for the production and dissemination of official statistics;
- Affirmation of the technical independence of INEC, with specific provisions for the exclusive authority of statistical institutions of the NSS to decide on the methodologies used in the production and dissemination of official statistics, appointment procedures of the members of the Board of Directors and of the manager of INEC, and requirements for professional competencies of staff;
- A strengthened mandate for INEC and the BCCR to collect information, including an obligation to respond to surveys, allowing to promote optimal use of data sources, including administrative data, and facilitate moves towards data integration;
- A strengthened legal right of producers of official statistics to access and use administrative data for statistical purposes without restriction, which would ensure that there is no longer duplication of work in the maintenance of the statistical business registers, and that inconsistencies in statistics would be more efficiently prevented. The modifications also promote the cooperation between the owners of administrative data and the producers of statistics;
- Significant reinforcement of INEC's co-ordination role within the NSS by creating an Inter-institutional Statistical Commission, establishing specific statistical units in each administrative unit of the NSS, and legally enshrining National Statistical Development Strategies and National Statistical Plans;
- A legal obligation to develop multi-annual plans and to consider their implementation and evaluation processes.

9. The Law No. 9694 also provides for engaging users at various stages of statistical production, managing statistical quality, redesigning the National Statistics Advisory Board, introducing security protocols to improve the protection of statistical confidentiality, and publishing a twelve-months-ahead advance release calendar for all official statistics.

10. The implementation of the Law No. 9694 therefore allowed Costa Rica to further align its statistical system with the OECD Council Recommendation on Good Statistical Practice. Further to its technical mission of July 2019, the Secretariat noted some positive effects of the adoption of the amended law shortly after its adoption, and even before its implementation through decrees, for example as regards data sharing within the NSS.

11. To sum up, in several areas, the compliance of the Costa Rica's legal and institutional framework for official statistics with the OECD Council Recommendation on Good Statistical Practice has been significantly improved during the review process, in particular with the adoption of the Law No. 9694 in May 2019, which reflects OECD standards. The technical independence of the producers of official statistics and statistical confidentiality are both protected by law; the impartial and objective basis for data collection, compilation, and dissemination is affirmed; there is a national Code of Good Statistical Practice whose revision is under way, and a National Advisory Board has been established. The Costa Rican statistical authorities recognised the need to address the weaknesses identified by the reviewers in 2017 and have acted upon. For instance quality management processes have been developed first for INEC and then for the NSS.

Statistical infrastructure

12. From a statistical point of view the census process (collection, compilation and dissemination) as undertaken by INEC looks solid and broadly in line with practices in OECD Members. The adoption of the amended law No. 9694 represents a significant progress in the mandate for data collection and requires that INEC conduct the population census with a maximum period of ten years between two successive censuses.

13. Noting that population estimates are fundamental statistics (particularly given that population is a denominator for many important indicators) and were produced infrequently in Costa Rica, i.e. only after a Census, the reviewers strongly recommended in 2017 that Costa Rican statistical authorities establish an active work program to produce at least annual population estimates that are not projections. INEC has since established a working plan for the period 2018-2024, with the support of the CELADE and the United Nations. The purpose of this project is to replicate the methodologies used by CELADE with the aim to calculate population estimates and projections based on the results of the 2021 population and housing census, and to establish a methodology for monitoring and calculating annual population projections. In addition, INEC established a working plan for 2019-2023 to create and maintain a Statistical Population Register (REP) to collect reliable information on population characteristics. This project requires access and use administrative records, and the Law No. 9694 will be instrumental here. Experts from IDB and OECD Members (Sweden, Denmark) have started to provide INEC with technical assistance.

14. Much like the population census, the agricultural census appears solid from a statistical viewpoint and in line with international practice. The next agricultural census is planned to be held in 2024.

15. Both INEC and BCCR maintain statistical business registers. The implementation of the new Statistics Law No. 9694 enhances data sharing, thereby reducing duplication and improving the quality of business registers. According to the Law No. 9694, INEC has responsibility for conducting the censuses, Labour Force Surveys, and households surveys. Classifications (where coordination is under the responsibility of INEC) are a core component of the compilation process for both INEC and BCCR (and for all producers of official statistics in the NSS).

16. The Register of Enterprises and Establishments, maintained by the INEC, and the Register of Economic Variables, maintained by the BCCR, seem able to meet the needs of both organisations, mostly in line with international recommendations and comparable to business registers of other OECD countries. However, there was the question why there are two business registers in the first place and whether this is an efficient arrangement. The implementation of the Law No. 9694 will improve the situation by enhancing access to administrative data and data sharing.

17. The implementation of the 2008 SNA has seen real progress in the direction of using international classifications by INEC and BCCR. INEC needs to ensure better overall coordination and cooperation among the NSS members for statistical classifications and needs to find the resources to properly restart the activities of the commission and bring about regular meetings with all NSS members.

18. The main sources for labour force statistics in Costa Rica are the quarterly household Continuous Employment Survey (ECE), and the quarterly enterprise survey (ENAE) conducted by INEC and financed by the BCCR. Since 2010, INEC launched several important surveys for the collection of a wide range of labour statistics and households characteristics. These surveys are compliant with the OECD requirements as regards sources of labour statistics.

National Accounts

19. The Costa Rican national accounts produced by the BCCR were assessed to determine how well they satisfy international standards, in particular the 2008 SNA, and the needs of users. The adequacy of the data inputs; the extent to which best practice methods are used by the BCCR; and the extent to which activities falling within the production boundary defined by the 2008 SNA are comprehensively measured by the estimates of GDP, i.e. exhaustiveness, were also evaluated.

20. The BCCR has made major steps forward to improve national accounts, the most important one by introducing the 2012 benchmark year, thus providing a solid and detailed basis. BCCR and INEC redesigned several important surveys in 2017-2018, including the National Agriculture Survey (ENA) and National Survey of Microenterprises of the Household (ENAMEH). At the time of writing this review, the BCCR is instructed to implement a new benchmark every five years and is rebasing the national accounts to a new 2017 base year with the aim to publish revised time series in 2020.

21. Costa Rica should also be commended for fully embedding the GDP compilation process in a Supply-Use framework for both current and previous year prices. This is very good practice as it ensures consistency, enhances the reliability of overall results and permits introducing adjustments for informal economic activity in an informed way. The accounts follow the 2008 SNA in nearly all important aspects.

22. Some important gaps remain, however, and progress should be made in the following areas:

- Annual institutional sector accounts: (i) carry out backward calculations to the year 2000; (ii) enhance timeliness by publishing the first release at the latest, in September of year T + 1. The BCCR plans to release annual institutional sector accounts with time series starting in the year 2000 in 2020.
- The computation of capital stocks and consumption of fixed capital should be gradually improved by using a more detailed asset breakdown and by introducing a retirement distribution (or using a geometric age-price profile). In this context, the participation by Costa Rica in the Latin America KLEMS project for productivity measurement is welcome. The BCCR plans to release a first set of capital measures by end 2019.
- Balance sheets for non-financial assets per institutional sector. The BCCR expects to produce them by end 2019.

- The measurement of Consumption of fixed capital that is used in estimates of public sector output should progressively be based on standard national accounts methodology rather than public sector accounts (at historical costs).
- Volume output of non-market activities are essentially estimated based on an input method assuming "zero productivity change". For some important non-market producers Costa Rica may want to explore the possibility to develop "output based" indicators.

23. The calculation of FISIM uses a reference rate whose calculation implies that FISIM on loans is always equal to the FISIM on deposits. This is not at variance with the 2008 SNA and practices among countries vary as well but the reviewers invited in 2017 Costa Rica to explore some existing approaches. The BCCR studied the methodologies implemented in several Members (the USA, Australia, Chile, New Zealand, and Colombia) and decided to implement the US approach.

24. Quarterly national accounts are benchmarked on annual accounts and are thus also compliant with the 2008 SNA. Release of quarterly data takes place at Q+90 days and covers main aggregates with some breakdown. Both current price values and chained volume measures are provided. Improvements in the following areas are important:

- At the time of writing this report, about 40% of the quarterly GDP series are estimated via pure mechanical interpolation. BCCR should put in place a plan for the extension of monthly or quarterly indicators so as to reduce the part of quarterly series that are not based on independent observations. BCCR indicated that it will start a new "Services Survey Project" in the second semester 2019 with results expected in early 2021.
- The timeliness of preliminary quarterly estimates of GDP and main aggregates need to be improved to bring it closer to OECD best practice of Q+45 days. Since 2018Q2, BCCR already compiles quarterly estimates at Q+60 days but for internal purposes only. In the near future, BCCR should aim at reaching first estimates after Q+45 days.
- Costa Rica should formulate and disseminate a revision policy for quarterly accounts. The BCCR committed to implement a revision policy along with the release of quarterly national accounts with the 2017 benchmark year in 2020.
- As a longer-term project, the development of quarterly sector accounts may be envisaged.

Price statistics

25. Costa Rica meets OECD requirements for the CPI series in terms of coverage, compliance, interpretability, and data and metadata transmission. The timeliness of the Costa Rican CPI even exceeds OECD requirements. In 2016, the implementation of SDMX significantly improved the regular transmission of CPI time series to the OECD. All the twenty-four CPI monthly target series have been provided by Costa Rica, as well as CPI contributions to annual inflation. In 2017, INEC published methodological information in English on CPI on its website. The re-basement that will follow the results of the updated 2018 household expenditure survey is also welcomed.

26. There is scope for improvement in a number of areas, however, and the OECD welcomes INEC's plans for the 2019-2020 review of the CPI in the following areas:

- Inclusion of owner-occupied housing (following a consistent approach with other statistical areas such as national accounts).
- Consideration of internet purchases where these are significant.
- Inclusion of the prices of second-hand goods if there is evidence that these carry a sufficient weight in consumer expenditure.
- Costa Rica is also encouraged to launch projects for explicit quality adjustment methods for products that are liable to rapid quality change, such as information technology products.

27. Methods used for the compilation of PPIs in Costa Rica comply with international methodological standards. The BCCR is encouraged to investigate further quality adjustment as regards import price index, and to ensure that they are consistent with those made for other economic statistics.

28. During the review, significant progress has been made by the BCCR as regards the coverage of PPIs required by the OECD and now Costa Rica meets the OECD requirements in terms of coverage. As of July 2018, the BCCR compiles and disseminates "PPI by economic activity" and "PPI by type of goods" for both total and domestic market (time series start in 2000 and are published as index with reference year 2015=100, annual and monthly changes). However, the number of PPI time series transmitted to the OECD via regular Excel questionnaire remains limited, and the reviewers welcome the commitment of the BCCR to provide in the near future all the PPIs required by the OECD, in particular the aggregate PPI for Total industry in accordance with the OECD required definition (i.e. excluding water and electricity), and PPIs covering both the domestic market and exports.

29. Costa Rica PPIs comply with OECD requirements in terms of timeliness. The reviewers welcome the forthcoming test phase for the regular transmission of PPIs via SDMX starting by end 2019. They recommend the publication of detailed and updated methodological information in English on the internet website of the BCCR. At the time of writing this report, the BCCR is compiling a complete methodology for all PPIs with specific chapters by industry. This methodological information will be made available by 2020. In the longer term, BCCR envisages to transfer to INEC the responsibility to produce and disseminate PPIs.

30. There is no Residential Property Price Indices (RPPI) for Costa Rica. In 2017, the BCCR started a research program on data for bank appraisals with the aim to obtain results in 2020. Other sources of information include the National Registry of Property (2019), MdH's standardised valuation office (2019), and fieldwork in 2020. The reviewers very much welcome this effort but signal also that sufficient time should be taken to deal with a complex area such as RPPIs to be confident to produce a series that is up to standards.

31. With regard to Purchasing Power Parities (PPPs), the Eurostat-OECD PPP Programme calculates PPPs on a triennial base with a price collection spread over three years. As the data collection for the 2017 round started in 2015, Costa Rica established a roadmap to catch up the delay. The programme is resource demanding and requires experienced staff with a good understanding of the PPP programme, so an efficient coordination between national accounts and prices is essential. To this end, the INEC and the BCCR were asked to cooperate and share the workload.

32. Costa Rica was able to report prices for a sufficient number of comparable and representative items for all the consumer goods surveys according to the agreed timetable. For the other surveys, housing, compensation of employees, and national accounts, INEC and BCCR followed the timetable established to fulfil the OECD requirements for the completion of the 2017

Round. Although ambitious, thanks to the commitment and the excellent work of both INEC and the BCCR, this timetable proved feasible and the Secretariat is confident that Costa Rica will be included in the preliminary results of 2018 by the end of 2019.

33. The Secretariat also encouraged INEC and BCCR to cooperate with other national statistics offices involved in the Programme, in particular in Spanish-speaking countries, and to build a stable team of motivated and experienced professionals. This was essential to deal with the important work required to catch up. In 2018, a PPP meeting was held in Paris where Costa Rica was able to establish close contacts with DANE Colombia. Since then, Costa Rica has regularly exchanged information with Colombia. All the Secretariat's recommendations have been implemented by Costa Rica, which will lead to robust results for the year 2017 at the end of 2019. Until these results are available, PPPs for GDP and consumption will be estimated on the basis of the 2011 results of the International Comparison Program (ICP).

Structural and Demographic Business Statistics (SDBS)

34. Costa Rica meets the OECD requirements in terms of coverage and compliance for SDBS. The BCCR submitted SDBS data in ISIC Rev.4 and for both Business Demography (BD) and Business Statistics by Size Class (BSC) questionnaires, for all available size classes. The agreement between INEC and the BCCR for harmonising information on SDBS in the future, and to ensure an effective transmission of data and metadata to the OECD is welcome. As regards the outstanding questions about the efficiency of the updating process, and the ability of INEC to access detailed BD information, it is expected that the extensive modifications contained in the Law No. 9694 will grant INEC full access to tax records and social security data for statistical purposes, and allow INEC and BCCR to disseminate harmonised SDBS.

Indices of Production and Demand

35. Indices of industrial production compiled and disseminated by BCCR meet the basic OECD requirements in terms of coverage, compliance, timeliness, interpretability, and data transmission, and compare favourably with those produced in many OECD Members. The extensive methodological changes introduced by BCCR in November 2016 in the monthly Index of Economic Activity (IMAE) allowed significant progress in terms of quality.

International Trade in Goods Statistics

1. The OECD International Trade Statistics Programme includes: international merchandise trade statistics; trade by enterprise characteristics (TEC); supply and use tables (SUTs); and trade in value added (TiVA).

2. In Costa Rica, the BCCR is responsible for TEC, SUTs and is involved with INEC in the production and dissemination of international merchandise trade statistics. OECD requirements for International Trade in Goods Statistics include International merchandise trade, trade by Enterprise Characteristics (TEC), and Supply and Use Tables (SUTs).

3. International trade statistics produced by INEC broadly comply with OECD statistical requirements but the inter-institutional cooperation essential to data quality is expected to continue and be strengthened. INEC is the official producer of monthly international trade statistics in Costa Rica. Monthly international trade statistics produced by INEC meet the OECD requirements in terms of coverage, timeliness and compliance. As regards interpretability, INEC improved available metadata, and is working with other institutions on the development of developing detailed methodological information in English, including information on the main differences in

the processing by the different institutions, which would represent a welcome improvement for users.

4. UN COMTRADE data shows that reported exports of Costa Rica present some large asymmetries with the mirror imports declared by some of its main partners. Similar differences are observable for this specific product with partners such as China and Mexico and Costa Rica is investigating these trade asymmetries.

5. Costa Rica is amongst a small handful of non-EU OECD countries that supply the OECD with TEC data. In this regard, Costa Rica is encouraged to continue this work and welcomes the continuous improvements in quality of the data provided to the OECD.

6. Costa Rica has proven to be very much at the front of the curve for other countries and BCCR's work here is highly commended. Costa Rica has been an active and energetic member of the OECD-WTO TiVA project and the OECD's Expert Group on Extended Supply and Use Tables. This excellent cooperation has been equally evident in the transmission of standardised SUTs to the OECD, as Costa Rica was one of the first countries to complete the questionnaire with a level of detail fully in line with OECD requirements.

Balance of Payments and International Trade in Goods Statistics

7. In Costa Rica, the BCCR compiles and disseminates balance of payments (BOP) and international trade in services statistics. At the time of writing this report, Costa Rica does not fully meet the OECD requirements for annual international trade in services statistics in terms of coverage, as data by partner country is only partially available. These statistics are important components of OECD international trade in services statistics programme and it is therefore highly desirable that the statistical authorities of Costa Rica take initiatives to fill this gap. It is welcome that the BCCR have confirmed that work is underway, and that exports in services by partner country for the period 2013-2016 will be transmitted to the OECD by end 2019. Given the commitments by the BCCR to address identified gaps and the evidence that has already been provided to confirm that work is underway, the reviewers expect that Costa Rica will meet the OECD requirements for international trade in services statistics in the near future.

Financial Statistics

8. Financial statistics includes general government accounts, financial accounts and related statistics, and short-term financial statistics. In order to progress towards compliance with OECD requirements, a substantial effort is needed from Costa Rica to continue to raise the quality of general government accounts in the SNA framework. With regard to financial accounts, a number of key annual series on financial transactions by sector are available from 2012 to 2016 along with information on institutional investors. These have been transmitted to the OECD, although the procedures for an efficient regular data transmission still need to be implemented. Several gaps remain: there are no quarterly accounts, no balance sheets, and no data on household assets and liabilities, and data on Institutional Investors have been provided without methodological information for the annual frequency only and for a limited period of time (2011-2016). The BCCR has scheduled the development of consolidated sectoral data for end 2020, and considers filling in the other gaps, notably the financial balance sheets, as part of the next benchmark revision to the national accounts in 2020.

9. Public sector debt statistics are largely available and broadly compliant with OECD requirements in terms of sector coverage. Some improvements are needed concerning the coverage of certain debt instruments, and the fact that government finance statistics are not yet

compliant with the 2008 SNA affects the conformity of public sector debt statistics with current international standards (as is the case with government accounts – see above). Additional issues relate to the valuation of debt, the recording of interest on an accrual basis, and the need to exclude the Central Bank when reporting on General Government debt.

10. OECD data requirements for short-term financial statistics are for (i) monetary aggregates; (ii) interest rates; and (iii) share price index, Costa Rican monetary aggregates produced and disseminated by the BCCR are comparable with data from OECD Members, both in coverage and methodology. Progress made during the review further improved their international comparability. The size of Costa Rican economy and the weakly developed stock market does not allow the BCCR to produce the required share price index that compares with those produced in OECD Members. The BCCR provided three interest rates that they considered closest to OECD requirements, and improved the quality of the coverage of the various components of the 3-months interest rate during the review process.

Labour and labour compensation statistics

11. In Costa Rica, the INEC is legally responsible for the production and dissemination of annual and infra-annual labour and labour compensation statistics required by the OECD. Costa Rica broadly meets the OECD requirements in terms of coverage and compliance. Data produced from the ECE survey is compliant with OECD requirements as regards sources of labour statistics. However, one pending issue is the availability of long time series, the ECE being relatively recent (the first available quarter is Q3 2010). This issue affects the identification of seasonal components and production of seasonally adjusted time series. During the review process, INEC made significant efforts to improve the annual time coverage and the consistency of data over time. At the time of writing, work on the harmonisation of annual data for years from 1987 to 2009 based on the Household Survey of Multiple Purposes (EHPM), and the Continuous Employment Survey (ECE), remains to be completed, although INEC already proceeded with adjustments in both surveys during the review process.

12. Work undertaken by INEC to reduce to five weeks the lag between the release of quarterly data and the reference period of the survey allows Costa Rica to meet OECD requirements in terms of timeliness for quarterly data. With regard to monthly data, further work will be necessary in order to produce actual monthly data rather than moving averages over 3-months periods. As regards interpretability, INEC committed to provide users with more detailed metadata including explanations on the deviations from international standards.

13. In May 2018, INEC, in cooperation with the BCCR, and with the financial support of the World Bank, launched the project to integrate by end 2023 several labour and households surveys (ECE, ENAHO, ENIGH, ENAMEH, etc.) into a single continuous survey (SIEH), with the following three main objectives:

- establish an integrated sample design for household surveys,
- define an integrated thematic and conceptual framework for household surveys, and,
- develop an integrated information technology system for household surveys, allowing INEC to provide users with detailed metadata.

14. Half of the tasks related to this five-year project have been achieved. Completion of this project will significantly improve the quality and consistency of labour statistics in Costa Rica, and enable the development of labour accounts, i.e. an integrated framework for the development of consistent labour statistics issued from various sources. The employment matrix developed by

the BCCR and the quarterly ENAE survey on private firms carried out by INEC will provide valuable inputs for this project.

Business Tendency and Consumer Opinion Surveys

15. In Costa Rica, there is no specific legal requirement with respect to the production of Business Tendency Surveys (BTS) and Consumer Opinion Surveys (COS). The assessment of BTS is based on information received from the Institute for Research in Economics (IICE) of the University of Costa Rica, the main public university in the country. COS have been produced since September 2002 by the School of Statistics (UCR), which is also part of the University of Costa Rica.

16. The COS survey methodology recently underwent a significant renewal to deal with the rising problem of non-response to land-line telephone surveys. The new methodology uses mobile phone lines and is slanted to maintain the quality of the COS data. The review concludes that Costa Rica meets OECD requirements in terms of coverage, compliance, timeliness and data transmission for the COS produced by the School of Statistics of the University of Costa Rica.

17. BTS produced by the IICE partially meet the OECD requirements in terms of coverage. Compliance with practices in OECD Members in this area would be further improved if IICE provides seasonally adjusted time series, as intended, in December 2019, and considers extending the coverage of BTS to the current business situation, as well as the potential development of monthly BTS in a longer term. Such developments would ensure that BTS could be used as input for the compilation of the OECD Composite Leading Indicators.

Income Distribution and Poverty Statistics, Well-Being Indicators

18. The OECD Income Distribution and Poverty Database aims at collecting annually a set of indicators to benchmark and monitor income inequality and poverty across countries. To maximise international comparability and inter-temporal consistency of the data, the Secretariat has defined a common set of protocols and statistical conventions. Data and metadata are collected from INEC via a detailed questionnaire and Terms of Reference.

19. Overall, income distribution and poverty statistics for Costa Rica meet the OECD minimum requirement in terms of coherence, timeliness, and data and metadata transmission. Data coverage is somewhat lower than that of most OECD Members, in particular, current transfers paid by household (e.g. taxes) are not collected by the ENAHO survey and some other income items are currently excluded from the survey. The efforts made by INEC to provide historical income data for the period 1987-2009 are very much appreciated, but data are not comparable with data for years from 2010, whereas the availability of comparable data for several years prior to 2010 would be very welcome for analytical purposes. The willingness of INEC to improve methodological information in English available online is welcome.

20. The reviewers welcome the INEC project to redesign employment and household income surveys, as it will enable progress in the data coverage of the income items required by the OECD, as well as in the construction of a time series of comparable data since 1987.

21. The present assessment of the well-being indicators is limited to the availability of data for Costa Rica for the twenty-five OECD headline indicators that form the core of the measurement in the OECD's Better Life Initiative. In terms of coverage, twenty-two of the twenty-five indicators are available, with missing indicators household net wealth, adult competencies in education, and microdata from time use survey, expected years in education being partially available. Although there is no formal plan or timetable envisaged for their calculation, these

indicators will be available in the future, considering the on-going redesign of the household survey, the 2017 Time Use Survey, which represents a key infrastructure, and the likely participation of Costa Rica in the OECD Survey of Adult Skills, which is part of the Programme for the International Assessment of Adults Competences (PIAAC).

Assessment of Costa Rican Statistics collected by other OECD Directorates

22. Although assessments differ across the various domains covered, the OECD Directorates are generally positive concerning the quality and comparability of statistics for Costa Rica, and the capacity to integrate them into OECD databases. While several gaps remain, significant progress in quality, consolidated by the implementation of concrete action plans in almost all the statistical domains, have been observed during the review and will continue to be accompanied.

Conclusion

23. Costa Rica adopted a strong legal framework for official statistics in May 2019 through the adoption of the Law No. 9694, in line with the Recommendation of the Council on Good Statistical Practice. Law No. 9694 provides for sustainable and adequate financing for INEC, significantly improves access to administrative sources, and provides a clear legal mandate to collect information for statistical purposes and to co-ordinate the national statistical system.

24. The Costa Rican statistical authorities made considerable progress in improving the quality and comparability of official statistics. Important strides were made towards integrating household surveys and moving towards a single business register, preparing for the next benchmark revision in national accounts, advancing with the modernisation of government finance statistics and preparing for the next population census.

Chapter 1. INTRODUCTION

1.1. Background

25. In the Roadmap for the Accession of Costa Rica to the OECD Convention [C(2015)93/FINAL], the OECD Council requested the Committee on Statistics and Statistical Policy (hereafter "CSSP") to carry out an accession review of Costa Rica in order to provide a formal opinion to Council evaluating Costa Rica's willingness and ability to implement the substantive OECD legal instrument within the CSSP's competence, as well as its policies and practices as compared to OECD best policies and practices in the area of statistics and statistical policy.

26. In evaluating Costa Rica's policies and practices as compared to OECD best policies and practices in the area of statistics and statistical policy, the Roadmap directed the CSSP to refer to the core principles in the area of statistics set out in the Appendix to the Roadmap, namely:

Willingness and ability to fulfil the obligation in Article 3 a) of the Convention to "furnish the Organisation with the information necessary for the accomplishment of its tasks", including providing short-term, structural and other analytical statistics and their associated methodological information needed for adequate policy analysis and surveillance:

- adequate legal and institutional framework for statistics and its conformity with the principles applied in OECD countries;
- quality of the data and metadata available and their comparability with data available in OECD Member countries;
- integration in the Organisation's reporting and information systems by the time of accession.

27. The OECD Council Recommendation on Good Statistical Practice [OECD/LEGAL/0417], the legal instrument that comes within the CSSP's competence, was adopted on 23 November 2015, and amended on 13 March 2019 to include a review prior to adherence of non-Members. In accordance with the Roadmap, Costa Rica was requested to take a position on the instrument in April 2016, and consequently formally submitted its position on the Recommendation in April 2017. Costa Rica accepted it with no reservations, observations or timeframes for implementation.

1.2. Scope of the review

28. The analysis here comprises i) a review of the legal and institutional framework for statistics in Costa Rica, and ii) an assessment of the quality and comparability of the statistical data available in Costa Rica, as well as Costa Rica's capacity to deliver data after accession which can be integrated into OECD databases. This assessment covers all domains in which statistics are collected and published by the OECD. Domains where the OECD Statistics and Data Directorate (SDD) is responsible for the collection of data are covered in detail, while for those where data is collected by other OECD Directorates, summaries are provided.

29. The legal and institutional framework for Costa Rican official statistics was assessed against the *Recommendation of the OECD Council on Good Statistical Practice*, which complements existing international guidelines such as the *United Nations Fundamental Principles*

of Official Statistics adopted by the United Nations Statistical Commission in 1994, and reaffirmed in 2013, the *European Statistics Code of Practice* (revised edition 2017), and the *Code of Good Practice in Statistics for Latin America and the Caribbean*.

1.3. Evaluation criteria

30. Within each statistical domain, data and metadata were evaluated to determine how well they met OECD policies and practices in terms of coverage, compliance, interpretability, timeliness and data and metadata transmission. In addition, where feasible, other aspects of the *OECD Quality Framework for Statistical Activities* are also considered, such as coherence, accuracy and credibility. Below are brief, generic descriptions of these evaluation criteria:

- *Coverage* – the extent to which statistics meet OECD policies and practices in terms of variables, detail, frequency, measurement units, historical and geographical coverage and availability.
- *Compliance* – the extent to which the statistics comply with the relevant OECD and other international standards.
- *Interpretability (Availability of Metadata)* – the ease with which the user may understand and properly use the data. The adequacy of the underlying metadata, i.e. the definitions of concepts, target populations, variables and terminology, and information describing the limitations of the data, if any – largely determines the degree of interpretability. For the purposes of this assessment, "interpretability" is viewed in a narrow sense as "Availability of metadata" explaining concepts and methodologies in one of the official languages of the OECD, English or French.
- *Timeliness* – the length of time between the end of the reference period and when statistics are made available to the OECD. The OECD has established desirable timeliness targets based in most domains based on needs and on the typical practices of member countries.
- *Data and metadata transmission* – the ability of the country to deliver data and metadata for integration into the OECD databases.
- *Coherence* – the extent to which the statistics are logically connected and mutually consistent within a dataset, across datasets, over time, and across countries.
- *Accuracy* – the extent to which data correctly estimate or describe the quantities or characteristics they are designed to measure.
- *Credibility* – the extent to which users can be confident in using the statistics.

31. Furthermore, with regard to the delivery of data for integration into OECD databases, it is extremely important that candidate countries have the ability to transmit up-to-date metadata explaining concepts and methodologies, in one of the official languages of the OECD, English or French.

1.4. Sources of information

32. This statistical review of Costa Rica is based on the following information:

- Costa Rica's responses to data and metadata collection questionnaires sent by the OECD Secretariat.

- Independent research by the OECD Secretariat, subsequently verified with Costa Rica.
- A peer review mission on 26-28 February 2017 by the full review team comprising experts from Italy, Chile, and Australia, and OECD Secretariat officials.
- Findings of a SDD mission on 15-18 July 2019.

33. This review is the result of a fruitful co-operation between the Costa Rican statistical authorities and SDD. All relevant documentation was provided by INEC, BCCR, and MdH, in particular the various laws and information on Costa Rican statistical legislation. The reviewers wish to thank the Costa Rican statistical authorities for their co-operation throughout the accession review process, and their strong commitment to implementing the recommendations.

1.5. Main findings and recommendations

34. In accordance with the recommendations of the CSSP, Costa Rica has adopted a strong legal framework for official statistics in May 2019 through the adoption of the Law No. 9694, in line with the Recommendation of the Council on Good Statistical Practice. In particular, Law No. 9694 provides for sustainable and adequate financing for INEC, significantly improves access to administrative sources, and provides a clear legal mandate to collect information for statistical purposes and to co-ordinate the national statistical system.

35. In addition, the Costa Rican statistical authorities have made considerable progress over the review process in improving the quality and comparability of official statistics. Important strides have in particular been made towards integrating household surveys and moving towards a single business register, preparing for the next benchmark revision in national accounts, advancing with the modernisation of government finance statistics and preparing for the next population census. To complete these advancements and to continue further alignment of Costa Rican statistics and the statistical system with the Recommendation on Good Statistical Practice, as well as with OECD best policies and practices in this area, Costa Rica is encouraged to prioritise the following areas:

- Ensuring full implementation of the Law No. 9694.
- Ensuring an efficient coordination of the NSS through the implementation of proper coordination mechanisms, including the appropriate functions of the Inter-Institutional Statistics Commission and the National Advisory Board created by the Law No. 9694.
- Moving to a single statistical business register.
- Creating a more process-oriented institution, in line with efforts by INEC to date. These include implementing the recently developed quality management framework for statistics, implementing a revision policy, increasing the engagement of users at various stages of the statistical production process, and reinforcing NSS co-ordination, for instance through establishing a web-platform for the NSS.
- Improving methodologies and filling the gaps in national accounts, including the backward calculations of annual institutional sector accounts and the improvement of their timeliness; the extension of the time coverage of a number of important time series, such as GDP by industry, final demand, etc.; the development of annual estimates of capital stocks and consumption of fixed capital; the reduction of the

part of quarterly time series based on mechanical interpolation; and the improvement of timeliness of preliminary quarterly estimates of GDP. A longer plan for the regular update of the national accounts base year should also be developed.

- Completing the production and dissemination of general government accounts (including the development of quarterly non-financial accounts for the general government) in line with the 2008 SNA and the improvement of their timeliness through the implementation of the action plan to implement GFSM 2014 between the BCCR and the Ministry of Finance.
- Completing the on-going integration process of labour and household surveys and further improvements of labour statistics.
- Pursuing improvements in the CPIs, including the inclusion of owner-occupied housing. A common approach towards owner-occupied housing should be implemented, in accordance with national accounts and income distribution statistics.
- Undertaking the population and housing census in 2021, in accordance with the frequency of censuses established by Law No. 9694, and completing on-going work program to achieve the production of annual population estimates that are not projections.
- Setting up a work programme for filling other gaps identified, such as developing a residential property price index, adding granularity to international trade in services data, developing an index on the number of dwellings for which construction work started, or extending the scope and periodicity of the Business Tendency Survey.

Chapter 2. LEGAL AND INSTITUTIONAL FRAMEWORK FOR OFFICIAL STATISTICS

2.1. Background

36. The objective of this review is to determine whether the legal and institutional framework for official statistics in Costa Rica is in conformity with the principles and practices applied in OECD Members for the compilation and dissemination of official statistics. Such framework refers to the formal laws and regulations that govern collection, processing and dissemination of official statistics, the institutions and agencies that undertake these tasks, and written guidelines for the implementation of recommended practices in accordance with international guidelines and recommendations. Finally statistical frameworks also encompass procedures for the recruitment, training and career development of all personnel working in all aspect of the statistical cycle of official statistics.

37. The legal and institutional framework (LIF) for official statistics in Costa Rica is assessed against the Recommendation of the OECD Council on Good Statistical Practice, adopted in November 2015. The Recommendation includes twelve recommendations (in bold italic below) and a list of indicative good statistical practices (underlined below) developed by the OECD and based on existing international and national guidelines and on the OECD's experience in accession statistical reviews. The twelve recommendations correspond broadly to the following areas: recommendations 1-5 capture the institutional, legal and resources requirements that enable statistical systems to function in the first place; recommendations 6-8 relate on methods, quality and processes of statistical production; recommendation 9 is about dissemination, recommendations 10 and 11 deal with co-ordination and co-operation; and recommendation 12 is about looking ahead and embracing statistical innovation. The twelve recommendations and the good practices form a detailed template applied to all accession countries.

38. These recommendations complement existing international guidelines, such as the ten UN Fundamental Principles of Official Statistics developed by the UN Statistical Commission in 1994 (UN Fundamental Principles of Official Statistics); the European Statistics Code of Practice[1]; and the Code of Good Practice in Statistics for Latin America and the Caribbean[2].

39. The following assessment of Costa Rica's legal and institutional framework for official statistics considered the laws, regulations, and policies governing the activities of all the major producers of statistics in its NSS. The objective was to determine whether this framework conformed with the principles and practices applied in OECD member countries for the compilation and dissemination of official statistics.

40. The Secretariat conducted a thorough review of the pertinent laws, including the comprehensive amendment to the statistics law No. 7839 initially presented on 12 June 2017 to the Legislative Assembly of Costa Rica as the bill of Law No. 20.404, and adopted as Law No. 9694 on 29 May 2019 without significant modification throughout the legislative process.

[1] http://ec.europa.eu/eurostat/documents/3859598/5921861/KS-32-11-955-EN.PDF/5fa1ebc6-90bb-43fa-888f-dde032471e15

[2] http://www.cepal.org/deype/publicaciones/externas/6/47276/codigo-regional-buenas-practicasALC-ENG.pdf.

The review also covers regulations, reporting relationships, and policies that govern the statistical activities of all major producers of statistics in the Costa Rican NSS.

41. The adoption of the Law No. 9694 is about to change the legal framework for official statistics in Costa Rica. The first draft developed by INEC was subsequently discussed with other major producers of official statistics and the government in the view to reach the stage of an inter-institutional agreement. The main discussion points at the Legislative Assembly related to the financing of INEC. Several options were debated before to obtain a reasonable compromise solution that essentially entails the financing of INEC by the annual Government budget, complemented by an annual transfer from the BCCR, resources collected in accordance with Article 40 of the Law. No. 8228, named 'Meritorious Fire Department Act', and the revenues from the sales of products and services from INEC. The Law No. 9694 therefore ensures a sustainable financing of the INEC for the production and dissemination of official statistics.

42. The compilation of information for the template involved the provision of material by national statistical agencies and collection of information from national publications and websites. Finally, in order to minimise the reporting burden for Costa Rican agencies, extensive use has been made of publicly available information and assessments undertaken by the International Monetary Fund (IMF) in their 2010 Report on Costa Rica's Observance of Standards and Codes (ROSC) using the Fund's Data Quality Assessment Framework (DQAF) [IMF 2007]. The completion of the review template has been an iterative process and the Costa Rican statistical authorities (INEC and BCCR) have been given the opportunity to amend and provide further material on earlier versions of this document.

2.2. Detailed assessment according to the Recommendation of the Council on Good Statistical Practice

2.2.1. Recommendation 1. Put in place a clear legal and institutional framework for official statistics which should in particular provide:

i. details as to the organisation of the National Statistical System (NSS), the legal status and role of the National Statistical Office (NSO), as well as the legal status, functions, relationship, rights and responsibilities of other institutions within the NSS.

ii. a clear mandate for institutions of the NSS to collect data for statistical purposes.

Good practice 1.1. Existence of a comprehensive and coherent statistical legislation periodically revised and amended. The statistical legislation defines the nature of official statistics; the legal framework for the compilation, production and dissemination of official statistics; the legal status, role in the system, functions, relationship, rights and responsibilities of institutions within the NSS; the mandate for data collection; the coverage of statistical activities; and the role, functions and composition of the Statistical Council. The statistical legislation also regulates the organisation of the NSS; the independence of the NSO and its head; the relationship between the producers of statistics and respondents; the access to administrative records and their use for statistical purposes; the dissemination policy; the legal infrastructure for ensuring the confidentiality and the penalties in case of breach of confidentiality; budget issues; the availability of sufficient resources for financing statistical programmes, the international statistical co-operation, and the co-ordination of statistical activities within the country's statistical system.

43. Costa Rica is a unitary constitutional republic administratively decentralised, composed of seven provinces, eighty-one cantons, and four-hundred and seventy-three districts. A unique

Constitution and a set of laws regulate the Costa Rican State. The Costa Rican NSS of Costa Rica is fairly decentralised compared to the systems of most OECD Members. INEC is the central agency within the NSS and the main producer of official statistics along with the BCCR, while more than twenty-four other national authorities direct the eighty-two official statistical activities listed in the 2015 Inventory of Statistical Operations. In such decentralised context, inter-institutional agreements play an important role in the production of official statistics.

44. The main legal basis for statistical activities of INEC and the organisation and functioning of the NSS is the Law No. 9694, adopted on 29 May 2019, and amending Law No. 7839 adopted in 1998. The new law enforcement requires a regulation issued by Executive Power within a maximum 6-month period, i.e. by 13 December 2019. This Regulation will complement the Law No. 9694 and ensure its appropriate and full implementation. This report therefore describes the legal framework in place in July 2019, including the expected changes resulting from the implementation of the amended legislation.

45. The BCCR operates under the Organic Law of the Central Bank of Costa Rica (Law No. 7558).

46. The Law No. 7839, which created the NSS and the INEC, gives INEC the responsibility to compile and disseminate all economic statistics, including national accounts, and coordinate the statistical activities within the NSS. While the Law No. 7839 intended to transfer the responsibility for the production of national accounts from the BCCR to INEC, it was amended and derogated by Law No. 8284 in 2002 to recognise the BCCR's responsibility to produce national accounts statistics. The BCCR produces the national accounts, balance of payments, and monetary and financial statistics, and has in charge most business surveys while INEC is responsible for the production of most of the social statistics as well as prices data for the national accounts and separate data programmes. The Legislative Assembly adopted in May 2019 extensive modifications to the statistics legislation to further align it with the Recommendation of the OECD Council on Good Statistical Practice. The Law No. 9694 clarifies the responsibilities of INEC and BCCR for the production of official statistics.

47. The Costa Rican legal and institutional framework for official statistics is composed of the following laws and regulations:

- Law No. 9694, passed on 29 May 2019, amending the Law No. 7839 of 1998, passed on 15 October 1998, published on 4 November 1998, and its most recent amendments, was published in the Official Diary, *La Gaceta* of June 14, 2002, alongside with regulations approved by the Board of Directors of INEC and issued by the Presidential Decree n°28849 of August 24, 2000, is the legal basis for the statistical activities of the INEC and the NSS of Costa Rica;
- Law No. 7558 dated on 3 November 1995, and subsequent amendments, mandate the BCCR to publish monthly and annual statistical reports on the economic situation of Costa Rica;
- Law No. 7963 reforms Article 4 of the Law No. 7839, of 15 October 1998,
- Law No. 8284 dated on 28 May 2002 and published in *La Gaceta* on 14 June 2002, introduces a derogation from the obligations set forth under the paragraph d), Article 15, of the Law No. 7839, and recognises the responsibility of the BCCR in the compilation of national accounts, although dissemination of national accounts is not explicitly assigned to the BCCR;

- Law No. 8131 dated on 16 October 2001 (Law of Public Budget), and its implementing Decree No. 32988-H of January 31, 2006, assign the responsibility of the MdH for collecting, processing, and reporting fiscal statistics;
- Presidential Decree N°38715-PLAN[3]) issued in 2014, instructs the entities of the NSS, in close cooperation with INEC, to explicitly implement the International Standard Classification of Occupations (ISCO) and the International Standard Industrial Classification of All Economic Activities (ISIC);
- Executive Decree N°38698, issued by INEC on 9 December 2014, instructs the entities of the NSS to adhere to the National Code of Good Statistical Practice and to implement the principles of the Code in practice.

48. The bill of Law No. 20.404 was initially developed by INEC in 2015 and 2016 to take into account the preliminary recommendations of the OECD statistical accession review and to further align the Costa Rican NSS with the Recommendation of the OECD Council on Good Statistical Practice. To this end, Law No. 9694 revises substantially the existing legislation in a number of areas, in particular with respect to the mandate of INEC and BCCR for collecting information (including an obligation to respond to surveys), the right for the producers of official statistics to access administrative sources, the co-ordination role of the INEC within the NSS, and the consultation of users. The changes also clarify the responsibilities of the producers of official statistics, the role of the Heads of INEC, and specific provisions on the adequacy of resources and mechanisms ensure sufficient and sustainable funding for INEC in a long-term perspective. Although the changes have not been yet implemented in practice, some of the most relevant proposals are referenced below.

INEC and the NSS

49. The Law No. 7839 of 1998, which creates the NSS with the purpose of rationalizing and coordinating the production of official statistics in Costa Rica, and the INEC as official co-ordinator, has been substantially amended by the adoption of the Law No. 9694 on 29 May 2019. The new law is organised as follows. A preamble explains the rational for the amendment and sets out general principles, based on the UN Fundamental Principles of Official Statistics and the first chapter presents the objects, scope and definitions. Chapter II deals with the creation and of the NSS (constitution, organisation, operation, principles governing the NSS; obligation to provide information for statistical purposes; confidentiality; and user access). Chapter II also sets up an Inter-institutional Statistical Commission supporting and monitoring the implementation of the National Statistics Plan. Chapter III defines the legal status, functions and powers of INEC, as well as the role of its Board of Directors, Manager, Deputy Manager, and their respective appointment procedures. Chapter III also includes an important section on the financing of INEC. Chapter IV details the sanctions, and Chapter V includes the final provisions, legal amendments and transition.

50. The Law No. 9694 shall apply to all the components of the NSS, as defined in the Inventory of Statistical Operations.

51. A number of other entities are producing official statistics in Costa Rica. While the 2015 Institutional Operational Plan (*Plan Operativo Institucional*, POI) developed by the Unit for Institutional Planning at INEC, initially aimed at the formal adoption of the Code of Good Practice by five institutions by 2016, twelve institutions were able to formally commit to implement the

[3] http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=78529&nValor3=98980&strTipM=TC

Code at that time. In addition, the Ministry of Culture and the Ministry of Science and Technology performed important statistical operations and were included in the 2012-2016 National Plan for Statistics (PEN its acronym in Spanish).

52. The Law No. 9694 establishes the following:

- Creation of the NSS (Chapter I);
- Creation of the INEC as an autonomous institution and establishes its functions and prerogatives (Chapter II, Section I, Article 12, Article 13);
- Authority of INEC for the co-ordination of the statistical activities within the NSS (chapter II, Section I, Article 13);
- Creation of the Board of Directors of INEC, and definition of its nature, membership, process for appointment (chapter II, Section II, Article 20);
- Creation of the National Statistics Advisory Board, as consultative body of the Government statistical services (chapter III, Article 38-41);
- Management of INEC; definition, functions, process for appointment (Chapter II, Section III);
- Internal Audit Department at INEC (Chapter II, Section IV);
- Funding system of INEC (Chapter II, Section V);
- Establishments of penalties and sanctions for breaches of duty (Chapter IV);
- Authority of the members of the NSS to collect information from any person or legal entity on a voluntary basis, and from any public administration (Chapter I, Article 5);
- An obligation for the public sector agencies producing official statistics to apply standard concepts, definitions, statistical units, classifications, nomenclatures and codes that enable the comparison, integration and analysis of statistics. INEC is responsible for issuing the appropriate technical regulations (Chapter I, Article 3)
- Ensure the confidentiality of the individual information used in the production of official statistics (Chapter I, Article 4) and,
- Power of the statistical authority to compel response to statistical surveys public institutions only (Articles 4 to 11).

53. Article 3 of the Law No. 7839 establishes that "the government agencies that make up the NSS must use a normalized system of concepts, definitions and statistical units". INEC is responsible for providing the corresponding technical rules. The government agencies of the NSS shall collect and share data for statistical purposes, "in accordance with the principles of statistical confidentiality, transparency, specialty and proportionality". Agencies of the NSS can request information on their activity from any physical and legal person residing in Costa Rica, as long as this information does not refers to confidential characteristics and is not protected by legislation. Any entity within the NSS can request information from all government agencies for statistical purposes, as long as this information is not protected by State Secret. These entities can also request information to international organizations conducting statistical work in Costa Rica.

54. Article 31 of Law No. 9694 defines the status of INEC as "an autonomous institution, which shall have legal personality and assess and shall enjoy the same functional and administrative autonomy enshrined in Article 188 of the Constitution" while Article 12 of Law

No. 7839 defined INEC "as an independent public institution that shall have its own legal status and assets and shall possess the functional and administrative independence given by Article 188 of the Political Constitution". In Costa Rica, the budgets of independent/autonomous institutions such as INEC are not explicitly reflected into the regular budget submitted by the MdH to the Congress for approval. The budget of INEC is allocated as a single amount through transfers from the Ministry of Planning. The Comptroller General of Costa Rica (*Contraloria General de la Republica*) operates as an auxiliary institution of the Legislative Assembly and is responsible for the supervision of the detailed formulation of the budgets of autonomous institutions and provides reports to the Legislative Assembly on their implementation.

55. Article 33 of Law No. 9694 enumerates sixteen functions for the INEC:

1) Establish rules and procedures to streamline and coordinate the statistical activities of SEN.

2) Design the National Statistics Development Strategy (ENDE) and the National Statistics Plan (PEN) involving institutions of the NSS and consultation of users of statistics, and submit it to the consideration of the National Advisory Council for Statistics (Conace) and to Board of Directors of INEC for approval.

3) Directly produce statistics provided for in Article 34, coordinate their production with other entities in the public and private sector, or contract this with other public or private institutions

4) Establish standards, models, formats, and terminology that govern the statistics production processes and by the entities that make up the NSS, to integrate, in a consistent manner, economic, social, and environmental data in the country.

5) Request nominate or innominate information from all units of the Public Administration, whether or not they are members of the NSS, when information is solely for statistical purposes and not covered by state secrecy.

6) Ensure compliance with the principle of confidentiality of personal data received for the production of statistics and ensure proper compliance with this principle by institutions of the NSS.

7) Provide to the public, on a clear and timely manner, the results of statistical activity and the methodologies used. INEC shall publish statistical data according to the schedule provided, which should always cover 12 months and shall be published on the website of the institution.

8) Contribute to the understanding of statistical results by the organizations and the population through the use of appropriate procedures and channels of communication, and clarify when improper interpretation is made.

9) Establish a policy and quality framework that govern the production and dissemination of official statistics, promote their adoption in institutions and evaluate the quality of statistics produced in the NSS.

10) Promote research, development, refinement, and application of statistical methodology in SEN institutions, and support and provide technical assistance to state statistical services and users, through mutual cooperation agreements.

11) Develop and maintain population directories needed for the collection of statistical information.

12) Promote the generation and use of mapping and geographical information systems for the production and dissemination of official statistics.

13) Deliver and geo-reference cartographic information in power sector entities as a basis for decision-making by Public Administration entities.

14) Delivery of information specified in this subparagraph shall always be protected under the rules of statistical confidentiality regulated by this law.

15) Provide advice, technically and methodologically, in the development of international agreements of statistical nature.

16) Represent the country in international organizations and on statistical activities and ensure that the information provided to international organizations is official.

17) Any other function assigned by law and that is consistent with the nature of their duties.

56. According to Article 34, INEC is responsible for the production and dissemination of the following official statistics:

- Population statistics, such as population forecasts, projections, and vital statistics, among others. Entities that are responsible for the registration of vital events should include in their records information required by INEC for the development of these statistics.
- Economic statistics, such as statistics on trade and services, agriculture, mining, industry, and manufacturing, construction and foreign trade, transportation, and tax, among others.
- Indices regarding consumer prices, production, and costs, among others.
- Social statistics, such as employment and unemployment statistics, household budget, access to basic services, poverty, household income, population welfare, ethnicity, disability, culture, among others.
- Environment statistics.
- National population and housing censuses, agricultural censuses, and other sectorial surveys deemed necessary. The periodicity between surveys shall be ten years maximum.
- Basic statistics required to generate the national macroeconomic accounts. The BCCR may require INEC the production of statistics, not regularly produced in the NSS. INEC shall produce them directly, or coordinate their production with other public or private sector entities, or agree on contract with other public or private sector institutions. Funding of these statistics should be ensured by INEC with the resources indicated in literal b) of Article 52 of the law.
- All statistics not developed by other institutions, but that the Board of Directors of INEC deems relevant.

57. Article 32 of Law No. 7839 regulates the financing of INEC: “The INEC shall prepare its own annual, ordinary and extraordinary budgets, subject to general guidelines promulgated by the competent Budgetary Authority. The Government of the Republic of Costa Rica shall provide funding for these budgets; consequently, the Government shall deposit these funds via a wire

transfer, provided an agreement is reached by and between the Department of Treasury and the INEC. The budget shall cover the expenditures and provide adequate funding for optimal operation and fulfilment of the functions granted under this Act."

58. According to Article 20 of Law No. 7839 and to the regulations that govern autonomous institutions in Costa Rica, the Board of Directors is "the maximum authority of the INEC".

59. Article 22 establishes that the Board of Directors "shall be composed of five members who must display moral solvency, ample capacity and professional experience that qualifies them for the performance of that position, and who shall be appointed as follows:

a) Two professional experts in statistics, selected by the Governing Council.

b) One professional with experience in statistics selected by the Governing Council from a shortlist of three candidates proposed by the Economic Science Association.

c) Two professional experts in statistics selected by the Governing Council from a shortlist of three candidates proposed by the National Council of Rectors.

60. The five members of the Board of Directors are appointed by the Governing Council4 for a six-year period and can be re-appointed for equal-length periods. Article 22 of Law No. 7839 describes their functions as follows:

a) Define with regulations, the technical rules and norms referred to in Articles 3 and 13 of this Act.

b) Determine the general policies and strategic plans of the INEC.

c) Approve the work plan, annual ordinary and extraordinary budgets, and any budget amendments, as well as agree with resource investments, in accordance with this Act.

d) Approve the financial processes and procedures necessary to execute the activities carried out by the INEC.

e) Approve, reform and interpret the INEC's internal rules and regulations and regulate the organization and administration services. The rules and regulations issued by the INEC for those purposes shall be published in *La Gaceta*.

f) Dictate the general norms of organization, hiring of personnel, functioning of its internal audit and other norms for the development of the Institute's work. Additionally, it shall dictate the policies for the classification and evaluation of positions, the salary regime and other compensations of the Institute's personnel.

g) The Board of Directors of the INEC shall define, through internal rules and regulations for the process of hiring personnel, the requirements, the guarantees and duties of the employees, the means of development and promotion of all the policies regarding human resources necessary for performing their functions.

[4]The Board is composed of five members: two representatives are appointed by the Government from a list of three (3) presented by the National Council of Rectors of Public Universities, one of the three candidates presented by the Association of Professionals in Economic Sciences, and the remaining two are designated directly Government council.

h) Name the manager, sub-manager and internal auditor.

i) Define the criteria to be complied by the INEC's administration to answer the service requests mentioned in Article 17 of this Act.

j) Any other derived from this Act and its bylaws".

61. According to Article 23, "The Board of Directors shall appoint for a one-year period, a President, Vice-president and Secretary, who shall perform their duties in accordance with the General Public Administration Act and may be re-elected".

62. The manager, with the deputy-manager, represents the administrative authority of INEC. The manager and the deputy-manager are appointed by the Board of Directors and their functions are defined by Article 27 of the Law No. 7839:

a) Exercise, in the name and behalf of the INEC, its judicial and non-judicial representation for the functions of his or her office, vested with power of attorney without limit in amount.

b) Attend the sessions of the Board of Directors, where he or she shall have a say but no vote, as well as execute the agreements and resolutions decided by the Board.

c) Appoint, promote, suspend and remove civil servants and employees of the INEC, except the sub-manager and internal manager. For that purpose, he or she shall apply the general provisions established in the personnel norms. When dealing with internal audits, the manager shall have the approval of the internal auditor.

d) Propose to the Board, for its approval, the norms it deems necessary to develop the tasks that the INEC must perform in regards to the statistical services rendered to the public sector.

e) Propose the internal organization of the INEC to the Board of Directors.

f) Present to the Board of Directors, for its approval, the INEC's annual budget plan, accompanied by a work plan and the budget amendments required to carry out such plan.

g) Provide the Board of Directors, in a periodic and convenient form, all the essential information necessary for the good functioning of the INEC.

h) Dictate the Institution's technical norms and co-ordinate its activities.

i) Produce the Institution's annual memory.

j) Co-ordinate, with the necessary centralized and decentralized institutions and departments of the public sector, the terms of the collaboration and support that these shall provide for carrying out national censuses.

k) Evaluate national censuses from a technical and administrative point of view".

63. The Internal Audit Office of INEC operates under the responsibility and direction of the internal auditor and deputy auditor, both appointed by the Board of Directors. Functions of the Internal Audit Office are prescribed by Article 30 of Law No. 7839: "(i) perform the duties of its or her office, monitoring and auditing the organization and functioning of the Institute; (ii) advise the Board of Directors on matters within its competence, and warn it of the possible consequences

of certain behaviours or decisions; (iii) ensure compliance with Acts, regulations, resolutions and decisions of the Board of Directors; and (iv) other functions set by this Act and its bylaws".

64. Since the beginning of the accession process, INEC launched a redesign of its internal institutional framework with the willingness to strengthen the institution and to become a process-oriented organisation, but also to enable a better development of statistical competencies, and to strengthen the technical leadership of official statistics. This reorganisation project has been financed by the Pre-Investment Fund of the Ministry of Planning, and negotiations for its implementation are being conducted with the MdH. The reviewers strongly support this reorganisation of INEC towards a more process-oriented organisation, which would strengthen in particular its capacities in quality management.

The Central Bank of Costa Rica (BCCR)

65. According to Article°1 of the Law No. 7558, the BCCR is an autonomous public corporation. Article 14 commands the BCCR to publish a monthly "statistical summary on the country's economic situation, including at least information on production, prices, currency, credit, exports, imports and gross and net international reserves. The Bank shall establish and publish the methodology it will use to prepare this statistical summary, as well as the changes it makes in the methodology". Concerning fiscal data, Article 40 specifies that "officeholders of the BCCR shall have access to tax-related information exclusively for statistical purposes."

66. The BCCR is responsible for the production of national accounts. Originally, the third transitory clause of Law No. 7839 of 1998 foresaw that the BCCR was to transfer the responsibility of producing national accounts statistics to INEC by 2003. However, the Law No. 8284 of 2002 amended Law No. 7839, and its article 15, section d), establishes that INEC must produce "basic statistics needed for the production of national accounts and other macroeconomic accounts under the responsibility of the BCCR". The amendment repealed the transitory clause and modified article 15 so that the production of national accounts is permanently under the responsibility of the BCCR.

67. The Ministry of Finance with the technical support of the BCCR, has seized the Office of the Attorney General (PGR) twice as regards the interpretation of section d) of article 15, following the amendment of Law No. 8284. In Criterion C-151-2005 of 2005, the PGR stated that:

1. INEC has exclusive competency to produce "basic statistics" and the BCCR, to produce national accounts and other macroeconomic accounts. There is no shared competency in the area of official statistics.
2. INEC is responsible for the definition of "basic statistics". Nevertheless, the BCCR defines the basic statistics required from INEC for the production of national accounts.

68. In addition, in Criterion C-126-2006 of 2006, the PGR declared that in the eventuality that the production of national accounts requires basic statistics that are not regularly produced by entities within the NSS, the BCCR shall request INEC to produce these statistics.

69. In 2008, the BCCR and INEC signed an official agreement, i.e. the General Agreement between the BCCR and INEC within the framework of the Integral Implementation of the Macroeconomic Statistics System (IISEM), with the aim of improving their co-ordination as regards the collection of basic statistical information for the production of national accounts. According to this agreement, INEC produced a number of basic statistics and developed new statistical sources for macroeconomic statistics and these activities were financed by the BCCR.

For its part, the BCCR carries out a number of business surveys although the legislation does not require respondents, in particular businesses to provide information.

The Ministry of Finance (MdH)

70. Law No. 8131 of October 16th 2001 (Financial Administration Act and Public Budgets), and its implementing Decree No. 32988-H of January 31st 2006, assign the responsibility for collecting, processing and reporting fiscal statistics to the Ministry of Finance (MdH) of Costa Rica. The law governs the economic and financial administration of all entities that manage or are custodian of public funds, and it applies to all public sector entities. The social security fund, municipalities, public universities, and public banks are exempt from the provisions of the law. However, these institutions must still comply with all budget regulations and articles 57 and 54 foresee they must provide information to the MdH and the Department of National Accounting upon request.

71. The Title IV of Law No. 8131 establishes the Financial Management System under the responsibility of the MdH. The system is composed of four sub-systems: Budget (Title V), Treasury (Title VI), Public Credit (Title VII), and Accounting (Title VIII). Article 91, Title VIII, states that one of the objectives of the Accounting Sub-System under the MdH's Department of National Accounting is to record systematically all the transactions that affect the economic financial position of the public sector. In addition, a System Property Management and Administrative Procurement complements the overall structure.

72. Article 21, Title III of Law No. 8131 also establishes the creation of the Budgetary Authority to provide guidelines for budgetary policy and to ensure their observance. Article 22 establishes that the Budgetary Authority will have an executive body named Technical Secretariat of the Budgetary Authority (STAP), whose functions shall be provided in the Regulations of the Law. The Director of the STAP is appointed by the MdH and assists to the sessions of the Budgetary Authority without voting right. Article 20, clause 'n' of the Regulation to Law No. 8131 , states that the STAP is responsible for compiling the main fiscal statistics for the public sector, namely those regarding employment, wages, financial investments and the institutional, functional and sectorial consolidation of the Public Sector.

Inter-institutional agreements

73. The whole point of the independence or autonomy of public institutions, as stated for instance in Article 12 of the Law No. 7839, is to remove these institutions from the direct influence of politicians. They are governed by a Board of Directors appointed to terms that generally exceed the four–year presidential administration term. Directors cannot be removed from their position for political reasons, this rules insulate them from the usual swings of electoral politics.

74. While independent institutions are not directly under the supervision of the Government, indirect links exist. In the case of INEC, the Ministry of National Planning and Economic Policy (MIDEPLAN) ensures a liaison with the Government and safeguards the transfer of funds from the Budget every year. Furthermore, all the Directors of the Board at INEC are appointed by the Government Cabinet (three of the five members are appointed on a proposal from non-government bodies).

75. In such context, the agreements between institutions play a significant role in complementing the legislation and allowing its effective implementation in practice. Three important agreements have been signed between INEC and other institutions within the NSS:

1. Agreement between the BCCR and INEC: Integral Implementation of the Macroeconomic Statistics System

76. In 2008, the BCCR and INEC signed an agreement within the framework of the Integral Implementation of the Macroeconomic Statistics System (IISEM), with the aim of improving the co-ordination between the two entities as regards the collection of primary information for the production of national accounts, and to "strengthen the implementation of the NSS so that more public entities participate in the data collection process in a co-ordinated fashion, and that there exists a legal framework to obtain complete, timely and reliable data from the private sector". The agreement establishes that statistics required to develop macroeconomic statistics will be produced by the INEC and the BCCR and includes a funding plan of INEC related activities by the BCCR.

77. The third clause of the agreement establishes the creation of a Management Commission (*Comisión Gerencial*) composed by the managers of each entity or whomever they design, and of Technical Commissions (one per agreement or specific project), composed by two representatives of each institution, in order to ensure the corresponding agreement is respected. The Technical Commissions meet at least once per month. The Management Commission will meet as often as needed to solve the financial and technical issues that are submitted to it.

78. The sixth clause classifies the production of statistics in three different categories:

1. a) Statistical products that INEC must produce according to the law. The BCCR shall allocate resources to INEC, as it also requires these statistics to develop the IISEM;
2. b) Basic statistics required for the production of national accounts and other macroeconomic accounts under the responsibility of the BCCR: the BCCR and INEC shall sign an agreement as the BCCR has to buy this service from INEC;
3. c) Statistics required for the production of the BCCR's accounts and that INEC has not committed itself to produce[5]: the BCCR is responsible for their production.

79. The 2008 agreement between the INEC and the BCCR resulted in increased resources for INEC and extended data sharing in the compilation of national accounts. While initially signed for ten years, the BCCR committed during the review process, to extend this agreement, which would have expired in 2018, for five additional years.

2. Agreement between the MdH and the BCCR

80. In 2011 the MdH and BCCR signed an agreement (*Convenio Marco de Cooperación e Intercambio de Información entre el Banco Central de Costa Rica y el Ministerio de Hacienda*) to enhance the cooperation between the two entities concerning: training of staff, statistics production, data collection, exchange of information, and the development of projects of mutual interest. This is to be done in compliance with criterion C-141-2008 of 2008 of the PGR, which establishes the BCCR can have access to tax information under strict observance of the principles of fiscal confidentiality and statistical confidentiality. The BCCR must also respect the prohibitions and limitations established in article 117 of the Code of Tax Norms and Procedures, Law No. 4755 of 1971, regarding the confidentiality of tax information.

3. Agreement between the MdH, the BCCR and INEC

81. In 2012, INEC, the BCCR, and the MdH signed an agreement (Convenio de Cooperación Interinstitucional entre el Ministerio de Hacienda, el Instituto Nacional de Estadística y Censos y

[5] Prior to the addendum, the third category read: "that INEC has authorized the BCCR to produce itself".

el Banco Central de Costa Rica para la Ejecución del EstudioEconómico a Empresas) whose main objective is, as stated in the second clause, to "estimate from the sources information on income, expenses, distribution channels, destination of sales, origin of inputs, assets, liabilities, equity, labour and wages, for the compilation of the input-output matrix, the supply & use Table, institutional accounts and the integrated economic accounts." The third clause adds to this list the need to "collect information on the non-financial private sector, necessary for the Change of Base-Year project. The agreement is valid until 2019 and may be extended for another fifteen years.

82. A comprehensive list of the inter-institutional agreements is available in Annex 2.B. These agreements contribute to improve the organisation of an effective production and dissemination of official statistics. They comply with the statistical legislation, in particular Article 13 (para d) of Law No. 7839 which establishes that INEC can "produce statistics directly; co-ordinate their production with other public or private agencies; or contract their production from other public or private institutions." However, there are differences in the repartition of responsibilities in the production and dissemination of statistical products between the Law (in particular the Law No. 7839) and the various agreements between producers of official statistics. As the legal status of the inter-institutional agreements differs from the one of the legislation, users could be confused by the overlaps in terms of responsibilities in the production and dissemination of official statistics.

Good practice 1.2. Laws and regulations governing the collection, compilation and production of official statistics are consistent with the UN Fundamental Principles of Official Statistics.

83. The Costa Rican Code of Good Statistical Practice, introduced by Executive Decree in December 2014, is based on the European Code of Practice for Official Statistics and the Code of Practice in Statistics for Latin America and the Caribbean, which are consistent with the UN Fundamental Principles for Official Statistics. In practice, data are collected and produced in accordance with scientific norms on sources, methods, standards and procedures of statistics and the confidentiality of information is maintained. Moreover, the adoption of the Law No. 9694 further aligns the Costa Rican statistical system with the Recommendation of the OECD Council on Good Statistical Practice, which is compliant with the UN Fundamental Principles for Official Statistics.

Good practice 1.3. Statistical authorities have a clear mandate for data collection and the authority to compel respondents to comply with data requests (e.g. the Population and Housing Census, Agricultural Census, surveys, administrative sources, etc.). In the case of Population and Housing Census, obligation for citizens to participate and to respond to the questionnaires is legally binding and established by Law.

84. The Law No. 7839 does not give a clear mandate to statistical authorities, both INEC and the BCCR, for collecting data for statistical purpose. In particular, there is no provision to mandate reporting from the non-financial private sector (private institutions). Articles 5 and 8 only state the right of the entities within the NSS to request information from individuals but on a voluntary basis, and Article 7 is unclear in compelling the Public Administration to provide information for statistical purposes. This limitation in data sources is a major challenge that INEC and the BCCR are facing, notably for the compilation of national accounts and balance of payments statistics as reporting to business surveys conducted by the BCCR is not mandated under law. The Law No. 7558 of the BCCR does not include any provision on the mandate for data collection.

85. In that regard, the adoption of the Law No. 9694 represents a major progress and its implementation should significantly strengthen the mandate assigned to INEC and BCCR for data collection. Section III of Chapter II on the NSS, introduces an obligation to provide information

for statistical purposes. According to Article 16, "all natural or legal persons and residents or passers are obliged to provide, orally of in writing, on the required format, free of charged and within a specified period, data, statistical information, and administrative records requested by the NSS public institutions, though its officials, delegates, or commissioners, about facts, which by nature and purpose are necessary for the development of official statistics that correspond to them as established by the National Statistics Plan. This obligation includes all public administration officials who, due to their duties, are responsible for administrative records that are necessary for the development of official statistics (…)". The implementation of this important achievement promotes an optimal use of data sources, including administrative data (see Recommendation 5), as a key priority with a possibility to move towards data integration, as recommended by the reviewers.

86. Although non-binding, the third principle of the *Code of Good Statistical Practices of Costa Rica* states that: "By virtue of current legislation individuals and companies are compelled to provide information to INEC and other institutions of the National Statistical System, and sanctions can be applied in case of non-compliance".

Good practice 1.4. Statistical authorities are required by Law to conduct a Census of Population and Housing and a Census of Agriculture at least every ten years.

87. The regularity and funding of population and housing censuses in Costa Rica are prescribed by Article 15 (b) of the Law No. 7839 and confirmed by Article 34 of the Law No. 9694 (f): "The INEC shall produce and disseminate the following statistics: those arising from national population and housing censuses, agricultural censuses, and other sectorial surveys deemed necessary. The periodicity between surveys shall be ten years maximum".

88. The financing of economic, agricultural and population censuses is ensured in Article 53 of the Law No. 9694, which establishes that: "in the event of a lack of resources for census activities, the Government of the Republic is obliged to provide these resources in the following regular or extraordinary budget of the Republic that is submitted to the Legislative Assembly for consideration.".

89. In practice, the ten-year lapse between two successive population and housing censuses or agricultural censuses was not systematically respected since the adoption of the Law No. 7839 in 1998. The population and housing census was conducted in 2000 and in 2011, and the most recent agricultural census was conducted in 2014 thirty years after the previous similar census. This lag was mainly due to a lack of financial resources, technical issues, and a lack of political willingness. The implementation of the Law. No. 9694 should address this shortfall, as the law now establishes a maximum period of ten years between two successive censuses, and ensures the funding process related to their achievement.

Good practice 1.5. Statistical laws and regulations are publicly available.

90. The Law No. 7839, which sets the foundation for the NSS, is available online in Spanish and English languages on the INEC's Internet website6. The Law No. 9694 is available in Spanish on the website of the Legislative Assembly and will be made available by INEC on its website once it has been published in the official diary *La Gaceta*.

[6] http://www.inec.go.cr/A/MI/Acerca%20del%20INEC/Acerca%20del%20INEC/Sustento%20Jur%C3%ADdico/05.%20Ley%207839%20Sistema%20Estad%C3%ADstica%20Nacional.pdf

91. The Organic Law No. No. 7558 of the BCCR is available in English and in Spanish on the BCCR's Internet website[7] under the theme 'Legal framework', and is presented alongside with a series of legal texts relatives to the non-statistical activities of the BCCR.

Overall assessment Recommendation 1:

92. The Costa Rican NSS is fairly decentralised compared to the systems in most OECD Members. INEC is the central agency within the NSS and the main producer of official statistics along with the BCCR, but more than thirty other national authorities direct the eighty-two official statistical activities listed in the 2015 Inventory of Statistical Operations. In this context, inter-institutional agreements play an important role in the production of official statistics

93. At the time of writing, the legal basis for the activities of INEC and the organisation and functioning of the Costa Rican NSS is the Law No. 7839, amended by Law No. 9694 adopted on 29 May 2019, which applies to all the natural and legal persons residing in Costa Rica as well as to the non-residents performing activities on Costa Rican territory. The BCCR operates under the Organic Law on the Central Bank of Costa Rica (Law No. 7558), which was amended and derogated by Law No. 8284 in 2002 to recognise the BCCR's responsibility to produce national accounts statistics. A 2008 agreement between INEC and the BCCR resulted in increased resources for INEC and extended data sharing in the compilation of national accounts. During the review process, the BCCR extended this agreement, which has expired in 2018, for five additional years. Finally, the national Code of Good Statistical Practice for Costa Rica was introduced by Decree in December 2014. The Recommendation is therefore broadly met in terms of the existence of a clear legal framework for statistics, even if inter-institutional agreements are necessary to ensure the practical implementation of the legislation. These agreements entail changes in the distribution of the legal responsibilities over the production of various statistical subjects which are no longer reflected in the Law 7839.

94. The Law No. 9694 relates in INEC and NSS and clarifies the responsibilities of the various producers of official statistics. It also strengthens the mandate for INEC and the BCCR to collect information, including an obligation to respond to surveys, allowing to promote optimal use of data sources, including administrative data, and facilitate move towards data integration. Indeed the Law No. 7839 did not provided a strong legal mandate to ensure that INEC and the BCCR were always able to collect the necessary information to produce official statistics, and the law No. 7558 does not explicitly mandates the BCCR to collect data. These gaps hamstring maintenance of the statistical business register and compilation of national accounts and balance of payments statistics. In this respect, the implementation of Law No. 9694 improves the compliance of the Costa Rican NSS with the OECD Council Recommendation on Good Statistical Practice and the reviewers welcome the changes included in the amended statistical legislation.

95. The statistical legislation also covers administrative and financial matters related to the decennial population and housing censuses and agricultural census, as well as obligations to respect the confidentiality of information provided by the respondents.

2.2.2. Recommendation 2. Ensure professional independence of National Statistical Authorities.

96. To this end, Adherents should ensure that the National Statistical Authorities:

- are professionally independent from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, considering that

[7] http://www.bccr.fi.cr/bccr_home_page/legal_framework/laws/Organic_Law_BCCR.pdf

professional independence of the producers of official statistics is essential for the production and the dissemination of objective statistics.

- have the exclusive authority, as part of their professional independence, to decide on statistical methods and dissemination.
- are protected, through the inclusion of explicit provisions in statistics legislation, from political and other interference in developing, compiling and disseminating official statistics.

Good practice 2.1. The professional independence of the Statistical Authorities from other policy, regulatory or administrative departments and bodies, as well as from private sector operators in compiling and disseminating official statistics, is explicitly guaranteed by law and ensured in practice by all entities of the NSS.

97. Articles 12, 13 (a), and 32 of the Law No. 7839 explicitly guarantees the technical independence of INEC and other entities of the NSS, including the BCCR, as regards decisions on statistical norms, models, and formats to be used in producing and disseminating official statistics. According to the Law No. 7839, INEC is an independent public institution (Article 12), and its main relationships with the Government are limited to the appointment of the members of the Board by the Government and to the annual transfer of funds from the Budget by the Ministry of National Planning and Economic Policy (MIDEPLAN), under the conditions described in Article 32 of the Law No. 7839.

98. The Law No. 9694 strengthens the technical independence of all the producers of official statistics in Costa Rica:

- Article 3 explicitly guarantees the technical independence of the entities of the NSS and empowers them to define and implement statistical methodologies and to disseminate statistics according to their plans, without "political interference, or of any kind, in the production and dissemination of official statistics".
- Article 10 (e) establishes that statistical institutions within the NSS have an exclusive authority to decide on the methodologies and procedures used in the production and dissemination of official statistics.
- Article 32 explicitly establishes that "INEC shall have technical independence to decide on the methodology to be applied in the production and dissemination of statistics. No person or public of private institution may intervene or hinder the production and dissemination of official statistics. Violation to any of these prohibitions shall be punished as very serious offence, pursuant to the provisions of this law."
- Article 39 reinforces independence and transparency in the appointment procedures of the members of the Board of Directors of INEC. In particular, the Government Cabinet is appointing one member of the Board only while the Law No. 7839 empowered it to appoint all the members.
- Articles 52-58 ensure a long-term funding of the statistical activities of INEC and in that respect reinforce the capacity of INEC to exercise its prerogative as regards independent technical decisions.

99. The Code of Good Statistical Practices for Costa Rica also establishes that the professional independence of statistical authorities from political, administrative, or any other type of organisations or influences, should be ensured in order to guarantee the credibility of official

statistics. Principles 1.1, 1.6, and 1.4 of the Code indicate that both the production and the dissemination of statistical outputs must be conducted with absolute professional independence.

100. The professional independence of the BCCR is established in the Organic Law of the Central Bank (Law No. 7558). Article°1 states that the BCCR is an autonomous public corporation that is technical in nature, and its capital is provided by the State of Costa Rica (Article 6 of Law No. 7558). Article 22 establishes that the Board of Directors of the Bank shall perform their duty in full independence from the Executive Branch, ensuring a clear distinction with policy makers.

101. Statistical methodologies and processes are based on technical considerations and are free of outside interference. In practice, the Economic Information Management and Macroeconomic Statistics Department of the BCCR decides on the statistical methods for the production and dissemination of data and no political or administrative influence must affect the results. However, this independence of the Macroeconomic Statistics Department is, as often in the case of Central Banks, not explicitly guaranteed in the law.

102. In addition, the General Law on Public Administration (Law No. 1667) details public servants obligations and prohibitions, in particular as regards the technical independence and the tasks carried out by BCCR's staff, which are reinforced by internal guidelines for their implementation.

103. According to the Organic Law No. 7558, the BCCR is subject to supervision by the General Comptroller's Office of the Republic of Costa Rica, as well as to oversight and supervision by its Internal Audit.

Good practice 2.2. The Head of the NSO, and where appropriate, the heads of other National Statistical Authorities, have responsibility for ensuring that statistics are developed, produced and disseminated in an independent manner.

104. In Costa Rica, it is difficult to ascertain who is personally performing the functions of Chief statistician. According to Article 20 of Law No. 7839 and Article 39 of Law No. 9694, the Board of Directors is the "highest authority of INEC". The Board nominates the Manager and the Deputy Manager of INEC, who legally represent the institution and as such are responsible to act in accordance with the law, including the provisions on the technical independence (see above). With the adoption of the Law No. 9694, the functions of the Manager further align with those attributed to a Chief Statistician in OECD Members.

Good practice 2.3. The Head of the NSO, and where appropriate, the Heads of other National Statistical Authorities, have the sole responsibility for deciding on statistical methods, standards and procedures, and on content and timing of statistical releases. This is explicitly provided by Law.

105. Article 10 (e) of Law No. 9694 provides for the essential provision of Article 13 of Law No. 7839 concerning the authority of INEC to decide on statistical methods standards and procedures, and on the content and timing of statistical releases, and extends this authority to all the entities of the NSS. In practice, INEC fully implements the Law No. 7839 in this domain and it is expected that the Law No. 9694 will be implemented.

106. Similarly, the Economic Information Management and Macroeconomic Statistics of the BCCR, decides on the statistical methods for the production and dissemination of data.

Good practice 2.4. The Head of the NSO, and where appropriate, the Heads of other National Statistical Authorities, have sufficiently high hierarchical standing to ensure

senior level access to policy authorities and administrative public bodies. They are of the highest professional calibre.

107. The INEC is governed by a Board of Directors and administratively managed by a Manager and a Deputy Manager appointed by the Board. The Board of Directors comprises five members and a President elected among the members is chairing the Board for two years. The Board of Directors is responsible for the appointment of the Manager and the Deputy Manager of INEC. Law No. 9694 redesigns the functions of the Manager of INEC (see below) and reinforces its authority, notably over the NSS. With the adoption of the Law No. 9694, these functions are more in line with those attributed to a Chief Statistician in OECD Members.

108. The BCCR is also governed by a Board of Directors composed of five members. The Governor of the BCCR is appointed by the Government Cabinet. The Macroeconomic Statistics Department (DEM), within the Economic Division, is responsible for the production and dissemination of statistics (national accounts, financial statistics, balance of payments, monetary aggregates, foreign direct investment statistics…) and is headed by a Head of Department appointed by the Board of Directors.

109. The internal independence of the DEM is very important and may require to be strengthened by the legislation or by a formal provision, especially as the role of the central bank in the production and dissemination of macro-economic statistics is significantly larger than in most OECD Members.

Good practice 2.5. The appointment of the Heads of the NSO and, where appropriate, the Heads of other National Statistical Authorities, is based on professional competence only. The reasons on the basis of which the incumbency can be terminated are specified in the legal framework. These cannot include reasons compromising professional or scientific independence.

110. Article 39 of Law No. 9694 and INEC Internal Regulation of the Board of Directors and Management establish the composition of the Board of Directors of INEC, and the appointment procedures of its members. The Board is composed of five members, with professional or academic experience and high qualification in statistics, economics or social research. While the Law No. 7839 established that all the members are appointed by the Government Council, Law No. 9694 provides that their appointment is as follows:

a. a. One by the Government Council;

b. b. One by the Association of Professionals in Economic Science of Costa Rica;

c. c. One by the BCCR; and,

d. d. Two by the National Council of Rectors (public universities).

111. The terms of office of members of the Board of Directors is six years and is renewable for a similar period. When the first Board of Directors was established, members were appointed for 6, 4 and 2 years respectively in order to renew the membership by rotation. In contrast with the previous legislation, Article 40 of Law No. 9694 includes reasons for dismissal before the term of the mandate. Article 29 of Internal Regulation of the Board of Directors and Management indicates that "Disciplinary Actions. If any of the directors repeatedly failed the provisions of this Regulation, it shall be to the attention of the Government Council and the Office of the Comptroller-General to set the corresponding responsibilities and relevant actions."

112. The Board of Directors is responsible for the appointment of the Manager and Deputy Manager of INEC for a six-year period with possibility to be reappointed for an equal period of time (Article 46 of Law No. 9694). Article 47 of Law No. 9694 amends Article 26 of Law

No. 7839, and establishes the professional qualifications required for these positions. Law No. 9694 stipulates that the dismissal of the Manager and Deputy Manager before the term of their 6-year mandate can only occur for breach of responsibilities and by means of the corresponding administrative process. Law also states that the manager and deputy-manager are irremovable during the period for which they have been appointed, unless the Board of Directors considers that it is proven that they do not fulfil their purpose, or that they are subject to a criminal case. In that case, their removal can only be agreed with the vote of at least four members of the Board.

113. The manager represents the highest administrative authority of INEC and its functions are defined by Article 48 of the Law No. 9694, which redesigns Article 27 of the Law No. 7839 with the aim to reinforce its authority, in particular over the NSS:

a. Exercise, on behalf of INEC, judicial and extrajudicial representation for the functions of his/her office, vested with the powers of an attorney without limitation as to sum.

b. Attend the meetings of the Board of Directors, where he/she shall have a say but no vote, and execute the agreements and resolutions decided by the Board.

c. Appoint, promote, suspend and remove INEC civil servants and employees. To this end, he/she shall apply the general provisions established by the Human Resources in accordance to the law.

d. Propose the internal organization of the INEC to the Board of Directors.

e. Propose to the Board of Directors, for approval, the rules it deems necessary for the development of the work of INEC and the NSS, in regards to the statistical services provided.

f. Submit to the Board of Directors, for approval, the annual and extraordinary budget of INEC, accompanied by a work plan and the budget amendments required to carry out such plan.

g. Provide the Board of Directors, on a regular and timely basis, all the essential information requested to monitor the good functioning of the INEC.

h. Dictate the technical standards and co-ordinate the implementation of the activities of the institution.

i. Chair the Inter-Institutional Statistical Commission, established herein

j. Establish the necessary co-ordination with institutions in the public sector regarding collaboration and support provided for national censuses and for other statistical.

k. Lead, from the technical and administrative perspective, the development of national censuses.

l. Represent the country in international organisations and specialised agencies in the field of official statistics.

m. Assist the Governing Councils with speaking but without voting rights.

n. Receive donations and all kinds of legacies made to the Institute."

Good practice 2.6. National legislation provides clear and detailed description of the procedure for appointment and dismissal of the Head of the NSO. A list of conditions under which the Head of the NSO can be dismissed is provided for by Law.

114. The Board of Directors is also regulated by laws No. 7839 and No. 5507 on autonomous institutions in Costa Rica. The Law No. 7839 provides a clear description of the composition and the functions of the Board of Directors, but does not provide explicit information on the procedure for the appointment and dismissal of the Board's members.

115. As regards the manager appointed by the Board of Directors for a six-year term, Article 26 of Law No. 7839 lists some conditions for the professional profile. Specific provisions in the Law No. 9694 clarify the procedures to appoint the manager of INEC but also the Head of the Board of Directors. In particular, law No. 9694 introduces requirements in terms of professional competencies for the manager and the deputy manager of INEC. While procedures for dismissal of the manager are strengthened, there is no provision on the reasons for its dismissal.

Good practice 2.7. A clear reporting system for the Head of the NSO is provided for by law in order to ensure and reinforce its technical independence.

116. Costa Rica has a fragmented public administration, which is characterised by an important number of subsidiary bodies of central government ministries and a large institutionally decentralised sector comprising autonomous and semi-autonomous entities (including INEC), and state- and non-state-owned enterprises. The statistical legislation does not include clear provisions as regards the reporting of the Board of Directors, or the Manager of INEC, to a Ministry, except that the five members of the Board are appointed by the Government Cabinet.

117. In practice, the national statistical office is mainly in liaison with the Ministry of National Planning and Economic Policy (MIDEPLAN), which ensures the transfer of the annual budget allocated to INEC by the MdH. There are three main reporting mechanisms between INEC and MIDEPLAN:

- Budget, reports of execution, and budget settlement, according to formats established by the Ministry of Finance.
- The Institutional Operating Plan, which includes annual activities, performance indicators, as well as a timetable, and the compliance reporting of that Plan is approved by the Board of Directors and submitted to the General Comptroller Office and the Ministry of Planning and Economic Policy (MIDEPLAN) every quarter.
- An annual report on activities carried out during the year, approved by the Board of Directors and submitted to the Ministry of National Planning and Economic Policy (MIDEPLAN) according to the format and content guide established by the MIDEPLAN.

118. However, the position of INEC within the administration of Costa Rica does not allow a regular liaison with the Government of the Republic. This position reflects the autonomy of the national statistical office but does not guarantee sufficient resources.

119. While the highest authority of INEC is held by the five members of the Board of Directors, administrative authority is ensured by the Manager. According to Article 27 of the Law No. 7839, (subparagraphs f), g) and i)), the Manager should propose an annual programme of work and the corresponding budget to the Board of Directors for approval. The Manager must also provide to the Board of Directors regular and timely information on the INEC's operations, and is responsible for co-ordinating the production of the annual report. The Management of INEC reports to the Board of Directors on the compliance with the agreements made by the Council according to a format established by the Management and the Planning Unit.

Good practice 2.8. The statistical work programmes are published and periodic reports describe progress made.

120. Two National Statistics Plans (2012-2016 and 2018-2022) are available on the INEC's Internet website.[8] In the past, there were no regular reports monitoring progresses in the implementation of such plans, by neither INEC nor other producer of official statistics within the NSS. Each entity in the NSS now commits to implement the National Statistics Plan and INEC is responsible for coordinating its execution.

121. INEC developed a report on the implementation of the 2012-2016 PEN for the period 2012-2014, before formulating the PEN for the period 2018-2022. Proposals for regular six-month and annual monitoring evaluating processes were not yet implemented. However, the reviewers consider that such multi-year plans represent an opportunity for Costa Rica to have a clear planning of the statistical activities and an efficient tool for addressing some of the challenges posed by the co-ordination of statistical activities in the NSS, or their financing over several years. In this perspective, the reviewers welcome the PEN 2018-2022 and strongly encourage the INEC to continue developing sound national statistical plans. During the review, the INEC committed in consulting users and producers with the aim to continue developing multi-year plans and to engage the process of improving the evaluation of their implementation.

Good practice 2.9. Statistical releases are clearly distinguished and issued separately from political/policy statements.

122. There are no political/policy statements in the statistical publications released by INEC and the BCCR. Appropriate mechanisms, such as validation controls, are in place to clearly distinguish statistical releases from political statements.

Good practice 2.10. The NSO and where appropriate, other National Statistical Authorities, comment publicly on statistical issues, including criticisms and misuses of statistics as far as considered suitable.

123. INEC is free to comment on statistical issues and criticisms or react on misuses of statistics and, in practice, uses this freedom on a case-by-case basis. The legislation does not include any specific mention on duty, rights, or restrictions, of INEC and other statistical authorities, to comment or provide observations on erroneous interpretation or improper use of statistical information that they disseminate. The Costa Rican statistical authorities react on a case-by-case basis without any specific procedure in place for such comments.

Good practice 2.11. Data collection, data production and release of information are ensured without formal approval from third parties.

124. Data collection, data production and release of information by INEC and the BCCR are ensured in practice without external formal approval.

Good practice 2.12. A Statistical Council including external experts advises the Heads of the National Statistical Authorities on strategic statistical issues. The nature of the Statistical Council and the reporting arrangements to government are provided for by law.

125. A National Advisory Board of Statistics composed of eleven members, including from the government, academics, trade unions, and the BCCR, was created in early 2012 in accordance with Article 38 of Law No. 7839, with the aim to promote the development of the production

8 http://www.inec.go.cr/A/MT/SEN/Plan%20estad%C3%ADstico/Plan%20Estad%C3%ADstico%20Nacional.pdf

system of official statistics, and to facilitate cooperation between statistical institutions, respondents, and users of official statistics. The National Advisory Board of Statistics is meeting at least twice a year since its creation. There is no timetable of meetings, the Board decides on the dates, and chooses a secretary and the president among its members. According to the Regulation, meetings are chaired by the President of the National Advisory Board of Statistics, elected by its members every year, and the technical secretariat is ensured by INEC (co-ordination unit). Agendas are defined by the President of the Commission, but INEC may suggest areas of common agreement. The recommendations from the National Advisory Board are transmitted to the Board of Directors of INEC for consideration and possible implementation. If the Board of Directors decides not to implement these recommendations, it must provide the reasons to the National Advisory Board of Statistics. The Manager of INEC and any member of the Board of Directors are invited to attend sessions of the National Advisory Board of Statistics as observer.

126. Article 27 of the Law No. 9694 largely extends the composition of the National Advisory Board of Statistics as provided by Article 39 of the Law No. 7839 from eleven to approximately thirty members:

a. "The Ministry of National Planning and Economic Policy, represented by its Minister who will also be the President of the Council.
b. The INEC, represented by the Manager, who will be in charge of the Secretariat
c. One representative, with vice-minister duties, of each of the governmental sectors established by the Government of the Republic. They will be appointed by the Minister Rector of each section, or if any, by the Governing Council.
d. One representative of the Judicial Power appointed by the competent authority.
e. One representative of the Legislative Power appointed by the competent authority.
f. The Director of the Economic Division of BCCR.
g. Two representatives of the National Council of Rectors, with the rank of university professors or directors of an academic unit or of a research centre of their universities appointed by this council.
h. Two representatives of business chambers appointed by Costa Rican Union of Chambers and Associations of the Private Business Sector (UCCAEP), with a seat in the Board of Directors or in the business chamber to which it belongs.
i. Two representatives of the union organisations of workers registered in the Ministry of Labour and Social Security (MTSS) with greater affiliation, with a seat in the Board of Directors, appointed by the corresponding directives.
j. Two mayors appointed by the Union of Local Governments, one of which must be from a municipality outside the Central Region.
k. A representative of the National Union of Cooperatives, with seat at the Board of Directors.
l. A representative of organisations of persons with disabilities, appointed in the assembly of such organisations, convened by the National Council for Persons with Disabilities (CONAPDIS).
m. Any other representative of organisations that request their inclusion in the Board of directors and that the Board, through a reasoned decision, consider advisable to incorporate them for the purposes of the National Advisory Board of Statistics. Likewise, under similar reasoning, other members may be incorporated at the invitation of the Board. In both cases, the designation will be made by the appropriate procedure, and will be incorporated as full members, once sworn by the Board of Directors."

127. Members are appointed for two years with possible renewal for an equivalent period, except for those appointed by the Government, which are appointed for four years, and those from the unions named for five years. The mandates are to be performed on an *ad honorem* basis.

128. Article 29 of the Law No. 9694 provides for the essential provisions of Article 41 of the Law No. 7839 as regards the functions of the Council:

a. "Serve as advisor and contributor to INEC in the development of the purposes mandated by this law.
b. Develop proposals and recommend on national needs for statistics and the adaptation and improvement of existing facilities.
c. Express an opinion on the draft projects for the National Statistics Strategy (ENDE), the National Statistics Plan (PEN), and annual plans and programs to be developed while implementing them.
d. Render opinion on other plans and statistical projects submitted by INDEC.
e. Advise NSS statistics producers on improving statistical service.
f. Recommend, to the Board of Directors of INEC, measures to improve publications of statistical reports on methods of disclosure and delivery of data on statistics, by NSS entities".

129. By Article 26, Law No. 9694 creates the National Statistics Advisory Board as the highest level advisory body for official statistics and clearly defines its functions and membership even if the procedures for appointing its members are not detailed in the law but are included in the Regulation to the Law. With approximately thirty members, the National Statistics Advisory Board is relatively large, compared to similar advisory councils in OECD Members, and should therefore be efficient in reflecting user needs. In practice, members of the National Statistics Advisory Board should be treated equally (except the President and the Secretariat) and those users that are policy-makers (such as ministries) should not be given any special rights to avoid any risk for the professional independence of the statistical producers.

Overall assessment Recommendation 2:

130. In Costa Rica, the statistics laws guarantee the technical independence of INEC and the BCCR, as regards the decisions on statistical norms, models, and formats to be used in producing and disseminating official statistics. The INEC has the legal responsibility to decide on statistical norms, models and formats used in the production of official statistics within the NSS. In addition, the Code of Good Statistical Practices for Costa Rica includes the principle that professional independence of statistical authorities from political, administrative, or any other type of organisations or influences, should be ensured in order to guarantee the credibility of official statistics. The Law No. 9694 includes a strong affirmation of the technical independence of INEC, with specific provisions for the exclusive authority of statistical institutions of the NSS to decide on methodologies used in the production and dissemination of official statistics, appointment procedures of the members of the Board of Directors and of the manager of INEC, and requirements for professional competencies of staff. The Law No. 9694 also extends the membership of the National Advisory Board, which now gathers both producers and users of official statistics, and establishes it as the highest level advisory body for official statistics in Costa Rica, as recommended by the reviewers in 2017.

2.2.3. Recommendation 3. Ensure adequacy of human financial and technical resources available to the National Statistical Authorities for the production and dissemination of official statistics. To this end, Adherents should ensure that the resources are:

- ***i. sufficient to allow National Statistical Authorities to meet their commitment to quality, and to meet professional standards thereby fulfilling their role as providers of reliable, relevant and accessible data for national and international use;***
- ***ii. adequate to produce a minimum core set of data, to be defined nationally or internationally, to monitor the economy, society and the environment.***

Good practice 3.1. National Statistical Authorities have sufficient funding for statistical production and dissemination, to support staff training, to develop computing resources, and to implement innovation. Resources are adequate in magnitude and in quality to meet statistical needs.

131. According to Article 32 of Law No. 7839, "INEC shall prepare its own annual, ordinary and extraordinary budgets, subjects to general guidelines promulgated by the component Budgetary Authority. The Government of the Republic of Costa Rica shall provide funding for these budgets; consequently, the Government shall deposit these funds via a wire transfer, provided an agreement is reached by and between the Department of Treasury and the INEC. The budget shall cover the expenditures and provides adequate funding for optimal operation and fulfilment of the functions granted under this Act." Nevertheless, this article is not implemented in practice and INEC does not receive appropriate multi-annual financial resources from the Government to fulfil its functions as defined by the statistical legislation, in particular as regards the collection, compilation and dissemination of statistics but also to ensure an effective co-ordination of statistical activities within the NSS. This lack of funding impacts the continuity of its own surveys, such as the households surveys which are necessary for the compilation of national accounts.

132. An alternative source of funding comes from the BCCR. In 2008, the BCCR and INEC signed an agreement within the framework of the Integral Implementation of the Macroeconomic Statistics System. Under this agreement, the BCCR takes in charge the financing of between forty to fifty percent of the statistical activities undertaken by INEC (see Table 1 below for the year 2015). The high dependency of the budget of INEC to the BCCR since 2008 is a major issue because the financing from the BCCR needs to be negotiated every year while statistical operations such as households' surveys need a stable and guaranteed source of financing over time. While most of the national statistical offices in OECD Members are financed by the State budget, only 50% of INEC's funding came from transfers from the central government, and 50% from transfers from the BCCR and from the sales of statistical products and services.

Table 1. Budget by source of financing in 2015

Millions of USD

Account Description	Budget	Percentage Participation
a) Current transfers from the Central Government	6 756 052	51.4 %
b) Current transfers of financial public institutions (BCCR)	4 756 238	36.2 %
Current transfers Total Public Sector	11 512 290	87.6 %
c) Resources from previous periods (surplus)	1 620 297	12.3 %
d) Sale of statistical products and services	5 586	0.04 %
Total budget 2015	13.138175	100.0 %

Source: INEC.

133. The consequence of this fragility of financing is that the INEC has to recruit a substantial part of its staff under a very short contract (one year) which leads to a high turnover and is in contradiction with the building of experienced and trained staff. In 2015, INEC accounted 627 employees of which permanent staff represents 28.7% only (180 persons) while 71, 3% of the staff was employed for "special services", as shown in Table 2.

Table 2. Distribution of jobs by regime at INEC in 2015

Type of job	Number of jobs	
	Fixed Charges	Special Services
Total jobs	180	447
Percentage Distribution	28,70%	71,30%

Source: INEC.

134. The recruitment of staff, particularly skilled staff, in an increasingly competitive labour market remains a major challenge for INEC. In addition, funds are not sufficient for developing new statistical projects, strengthening further the production and dissemination of statistics, ensuring the long-term sustainability of statistical production, and ensuring the co-ordination of statistical activities within the NSS. In 2014, 72,3% of INEC's budget was devoted to the production of statistics, 21,4% to administrative activities, 4.1% for the dissemination of statistics, and 2,2% for the co-ordination of statistical activities within the NSS. At INEC, human resources and computer equipment depend on the budget allocated by the government every year and, in half, by the BCCR. INEC is funded by a transfer from the central government budget via the Budget of the Republic, which means that it has to follow the guidelines and procedures issued by the MdH. Each year, INEC is required to justify and negotiate the allocation of financial resources with the relevant authorities, leading to a large number of staff having yearly contract, which do not ensure them the stability needed to build experience.

135. In 2015, INEC commissioned a study with the aim to propose solutions for a long-term stable financing system. The results of this study were adopted by the Board of Directors in December 2015, and subsequently transmitted to the Secretariat in February 2016. The study concludes that "the current situation is not a viable short-term solution and other alternatives must be considered", and that "it is important to take steps to ensure that the necessary financial resources come mostly from the national budget". The study also proposes a new governance model for official statistics with changes in the statistical legislation and organisation. It also suggests the creation of a technical committee with the aim to design appropriate solutions.

136. In 2017, negotiations between INEC and the budget authority led to the adoption of three-year annual budget programs, including personal recruitment. The reviewers welcome this development, which allows a greater stability in INEC resources.

137. The reviewers welcome the objective of securing the long-term financial resources of INEC by law, as indicated in specific provisions included in Articles 52-58 of the amended Law No. 9694. Ensuring sufficient resources for the production of official statistics in Costa Rica is crucial. However, the underlying objective of using revenues from a specific tax dedicated to contribute to the budget of INEC does not correspond to common practice within OECD member countries. The reviewers were neither in a position to assess the relevance of such mechanism, nor to evaluate its potential efficiency over the long term.

Good practice 3.2. The adequacy of resources is regularly monitored.

138. There is no systematic procedure in place to ensure the adequacy of resources in magnitude and quality for the production and dissemination of official statistics in Costa Rica. INEC and the BCCR have annual budget mainly based on the on-going statistical activities.

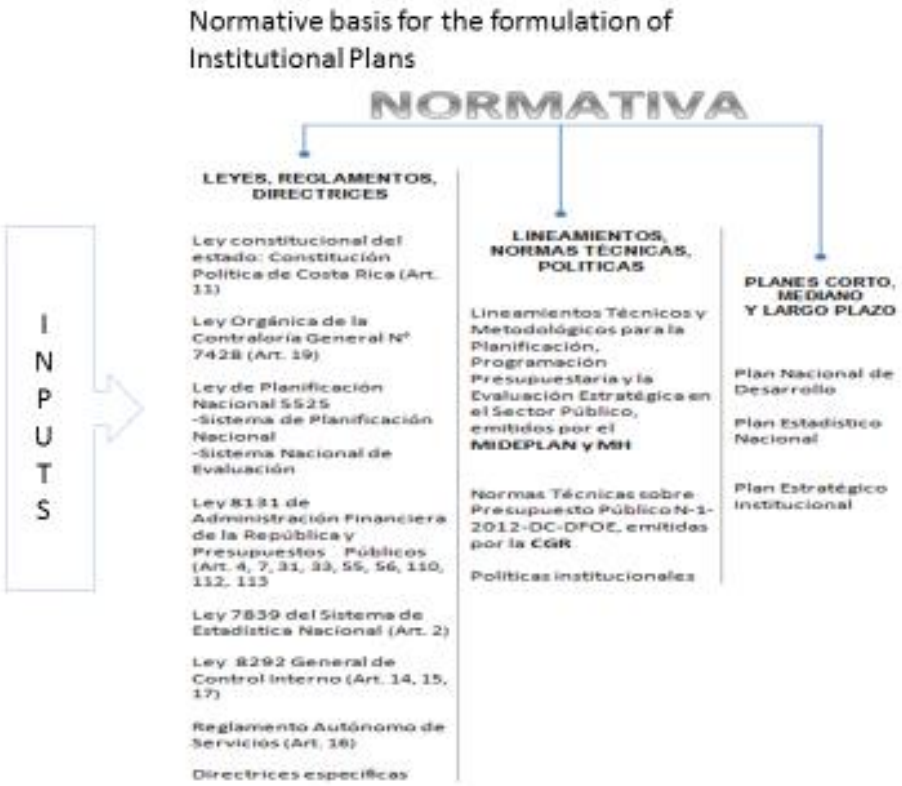
139. The Manager of the INEC is responsible for the preparation of the annual budget that needs to be approved by the Board of Directors. The expenses of conducting the surveys, developing new statistics, recruiting staff, acquiring appropriate equipment, co-ordinating statistical activities have to be approved by the Board of Directors on an annual basis.

140. The Law No. 9694 significantly strengthens the planning activities within the NSS, in particular with the introduction of a 10-year National Statistical Development Strategy, and the confirmation of the implementation of 5-year National Statistical Plans. Such planning activities helps in defining longer-term perspectives in the financial resources required by the production and dissemination of official statistics and allows INEC to hire staff with higher qualifications and to develop important long-term projects for the NSS.

Good practice 3.3. The scope, detail and costs of statistics are commensurate with needs.

141. Over the past years, the production of official statistics has significantly increased in Costa Rica but the sustainability of resources for the production and dissemination of official statistics remains a challenge. The 2012-2016 and 2018-2022 national statistical plans, designed to establish the main orientations for developing official statistics in Costa Rica, including specific objectives in terms of products and associated tasks, represent the only available instrument to ensure an efficient resources allocation. However, intermediate action plans are required to improve the monitoring of the implementation of these four-year plan within the institutions of the NSS. To this end, the Law No. 9694 introduces 10 year national strategic plans to complement the existing 5-year national statistical plans.

142. In Costa Rica, planning in the public sector is based on the theoretical premises of planning for results and is regulated by a set of guidelines and standards at different levels. There are laws, regulations, directives and guidelines, technical standards and policies; in addition to plans for short and long term (National Development Plan, National Statistical Plan, and the Institutional Strategic Plan) which are used as a reference. These standards and guidelines are issued by the Ministry of Planning, the Controller General's Office, and the MdH. (See the chart below)



143. These guidelines provide institutions with direction and instructions, in particular on the dates and established formats, to develop their strategic and operational plans, as well as monitoring and evaluation reports, such as the Institutional Operational Plan (POI) to the Annual Budget, and quarterly and annual reports. The Information System Plans and Budgets (SIIP) provides information to compile an Index of Governance (IGI) and an institutional memorandum.

144. This framework applies to all public sector institutions in Costa Rica. While there was no specific legislation for the definition of plans and programs for statistical production and dissemination, Article 6 of the Law No. 9694 instructs INEC to establish a 5-year national statistics plan in cooperation with the institutions of the NSS. Prior to the adoption of the Law No. 9694, INEC elaborated the 2012-2016 National Plan for Statistics (PEN) and updated this plan for the period 2018-2022. To this end, INEC organised various consultations (workshops and working groups) with producers and users of statistics (public institutions, academics, and experts) in order to analyse the supply and demand for official statistics and to identify the main gaps and the main challenges for producing the missing data. Based on these consultations, INEC proposed strategic priorities for the development of official statistics, guidelines, and monitoring and evaluation procedures to be included in the PEN.[9] An additional objective of the PEN consists in co-ordinating the various initiatives in the production and dissemination of official statistics.

[9] http://www.inec.go.cr/A/MT/SEN/Metodolog%C3%ADa/C2/Plan%20Estad%C3%ADstico%20Nacional/Plan%20Estad%C3%ADstico%20Nacional.pdf

145. INEC also developed an institutional strategic plan for the period 2012-2020 with the aim to support statistical activities and to implement the Institutional Operational Plan (POI).

146. The BCCR, for its own part, developed and implemented a strategic plan that governed the institution over the period 2015-2018, in accordance with its responsibilities defined by the Organic Law.

Good practice 3.4. Procedures exist to assess and justify demands for new statistics against their cost.

147. There are no procedures in place to assess and justify demands for new statistics based on a cost-effect analysis. The production of new statistics depends on the demand, availability of human and financial resources.

Good practice 3.5. Procedures exist to assess the continuing need for all statistics, to see if any can be discontinued or curtailed to free up resources.

148. Institutional 10-year national strategic plans and 5-year national statistical plans (2012-2016 and 2018-2022 PEN), are discussed by the members of the NSS and associated to relevant budgetary annual planning. During this process, new and on-going needs are systematically evaluated. The statistical operations of the 2012-2016 PEN were assessed to determine their continuity, identify whether modifications were required in case of lack of demand or substitution for cost efficiency. The assessment carried out in the context of the preparation of the PEN identified gaps with the aim to improve the quality of statistics and access to data. The 2018-2022 plan includes mechanisms to monitor the implementation of the decisions from the 2012-2016 PEN. Moreover, at the time of writing, INEC envisaged to conduct a cost-effect analysis of the on-going statistical products in the context of a future general assessment of the production of statistics.

Good practice 3.6. National Statistical Authorities implement a policy of continuous vocational training for their staff.

149. As explained above, a major problem in INEC is the continuity of the staff because of its specific financing. There is no policy for continuous vocational training for staff among NSS institutions. Internal or external training programs, workshops, conferences, and seminars are organised in the context of international cooperation agreements. INEC occasionally funds internships or training activities for some of its staff when improving skills by learning about experience in other countries is required.

Overall assessment Recommendation 3:

150. The review concludes that multi-annual financial and human resources for the production and dissemination of official statistics are inadequate and insecure. In particular, the multi-annual funding of INEC's activities by the Budget Authority is not secured in practice and financing and the recruitment of staff has to be negotiated every year. The recruitment of staff under long-term contracts remains challenging for INEC as a result. An alternative source of funding comes from the BCCR that has been a major contributor to the INEC budget over recent years. BCCR funding is provided under a multi-year framework agreement.

151. The Law No. 9694 includes explicit and general provisions to ensure adequate resources and long-term funding for INEC, in particular in its Section V. The financing of INEC was extensively discussed during the legislative process and several options were debated before reaching a solution that essentially entails the financing of INEC by the annual Government budget, complemented by an annual transfer from the BCCR, resources collected in accordance with Article 40 of the Law No. 8228 (a levy on insurance premiums) and the revenues from the

sales of products and services from INEC. Law No. 9694 also strengthens the multi-year planning activities by introducing a ten-year national statistical development strategies in complement to the five-year national statistics plans. All these provisions therefore ensure a sustainable funding of INEC for the production and dissemination of official statistics.

2.2.4. Recommendation 4. Protect the privacy of data providers (including individuals, households, enterprises, administrations, and all levels of government) and guarantee by law the confidentiality of the individual information provided and its use for statistical purposes only.

152. Key actions on effective management of statistical confidentiality include protecting secure information, avoiding any disclosure of identifiable information and providing access to micro-data.

Good practice 4.1. Statistical confidentiality is guaranteed by law.

153. In Costa Rica, the Law No. 9694 amending the Law No. 7839 on the NSS and INEC, and the Organic Law No.7558 of the BCCR guarantee the statistical confidentiality. The Law No. 9694 strengthens Article 4 of Law No. 7839 as regards the protection of personal and private information gathered under the law by INEC, the BCCR and other members of the NSS. In particular, the new law instructs the statistical institutions within the NSS to:

- Enforce the protection by all staff involved in the NSS of the confidentiality of personal information related to natural and legal persons used for statistical purposes only, even after the link between an agency responsible for collecting data and the respondents is broken (Article 20),
- develop appropriate protocols and mechanisms to guarantee the confidentiality of individual information (Article 22),
- inform respondents on the use of information collected (Article 21),
- ensure that appropriate procedures are in place to safeguard confidentiality when entities of the NSS share data (Article 21), and,
- establish sanctions in case of breach (Article 67).

154. The Law No. 9694 reinforces Article 4 of Law No. 7839 which states that statistical institutions within the NSS shall "collect, manage and share data for statistical purposes in accordance with the principles of statistical confidentiality, transparency, specialisation and proportionality". Its implementation could require additional procedures to protect the privacy of data providers, in particular as regards the security and integrity of statistical databases, signature of legal confidentiality commitment by all regular and temporary staff of the national statistical office and other producers of official statistics upon appointment, as well as any person engaged in official statistical operation (the commitment would remain binding even after the cessation of functions). Users should also be widely informed on the INEC's policy on confidentiality, thus improving their confidence in its capacity to effectively protect individual information. During the accession review process, INEC informed the reviewers on its intention to develop short-term plans for improving this communication.

155. In December 2014, the Board of Directors of INEC adopted a new Dissemination Policy for Statistics and Delivery of Micro-data with the aim of further implementing the principles enacted in Article 4 of Law No. 7839 in the whole NSS.

156. As regards INEC, Article of Law No. 7839 states that "the INEC may provide individualized information on the different products generated by the NSS, providing always a block on the identification records defined in the relevant documents, electronic files, administrative records and other means. These data shall not be published individually, but as part of overall figures, which shall correspond to three or more persons or legal entities; neither shall they be used for tax purposes or any other purpose. In population directories of public use, only basic information of persons or legal entities shall appear, providing that the principle of confidentiality mentioned above is never undermined."

157. For the BCCR, confidentiality of data reported by individual persons and entities is guaranteed under Paragraph (f) of Article 14 of the Organic Law No. 7558: "the BCCR is bound to safeguard the confidentiality of individual information provided by physical and legal persons".

Good practice 4.2. Specific measures are in place to ensure the full protection of individual data from any potential disclosure without consent, with the aim to ensure the confidence of data providers in participating in statistical surveys: written instructions and internal guidelines are provided to statistical authority staff on the full protection of statistical confidentiality in the production and dissemination processes; appropriate penalties are prescribed for wilful breach of confidentiality and for any disclosure of individual data of a private nature that could infringe upon private life. These penalties are well-known to statistical staff and new employees sign legal confidentiality commitment upon appointment.

158. The Dissemination Policy for Statistics and Delivery of Micro-data adopted by the Board of Directors of INEC in December 2014 requires the implementation of adequate measures to safeguard confidentiality and prevent the disclosure of individual information. INEC considers the implementation of its dissemination policy by all institutions within the NSS, in particular when confidentiality agreements are required.

159. According to Law No. 7839, INEC staff is not required to sign any sort of formal confidentiality commitment as regards the protection of individual information. However, new officials recruited at INEC are informed about their duty as regards confidentiality of personal information as well as about the sanctions established by the law in case of breach. Law No. 9694 introduces

160. According to Article 203 of the Penal Code, "Shall be punished by imprisonment of one month to one year or thirty to sixty days fine, whoever having news by reason of its status, trade, employment, profession or art, reveals a secret without just cause, whose disclosure could cause damage,. If case of a public servant or professional it will be imposed, and also disable for the exercise of public offices and positions, or titular professions, from six months to two years."

161. This legislation does not include provisions establishing the possibility of disclosure with consent. In practice, the confidentiality of information reported by individual persons is ensured by adequate staff and computer resources. For the BCCR, Article 5 of the internal Guidelines on Impartiality, Objectivity and Integrity of the Staff of the Central Bank of Costa Rica, indicate that, "… besides the legal dispositions that compel public servants to preserve the confidentiality of the issues under their knowledge … staff must be discreet with regard to all facts and information they become aware when performing their functions…". According to the 2010 IMF ROSC, "this requirement extends up to one year after the employee has terminated his/her relation with the BCCR, and in some special cases until the facts lose their relevance" [IMF 2010, National Accounts, p. 5].

162. The amended Law No.9694 (Chapter II - Section IV) reinforces the implementation of procedures and security protocols to protect and guarantee the confidentiality of personal information within the NSS, while allowing users to access micro data with anonymised

information. Sanctions in case of breach in confidentiality are extended and more precisely defined (Chapter IV) in comparison with the previous legislation. Law No. 9694 introduces provisions allowing data sharing among producers of official statistics, as well as an informed consent of respondents prior to the disclosure of individual information.

Good practice 4.3. The confidentiality policy is made known to the public.

163. Apart from the Law No. 7839 and the Dissemination Policy for Statistics and Delivery of Micro-data, both available in Spanish, there is no specific document on the policy of INEC as regards the confidentiality that is made publicly available on the Internet website of INEC. INEC is encouraged to publish its policy on confidentiality.

Good practice 4.4. Physical, technological, administrative and organisational provisions are in place to protect the security and integrity of statistical databases.

164. At the time of this review, INEC and BCCR have not taken specific provision to protect the security and integrity of statistical databases at this time, but the IT unit at INEC is working on the development of protocols to this end. The development of the Dissemination Policy for Statistics and Delivery of Micro-data in 2014 has led to the creation of a corporate database (institutional database file) which was operational six months after the adoption of this policy, i.e. in mid-2015. This implementation is combined with the development of security measures to preserve the statistical information and to ensure that the confidentiality of information is respected. However, the File Database Institutional Data has not been implemented as initially planned and its implementation is now included in the Action Plan of the Strategic Plan for Information Technology (PETI). In 2015, the Safety Regulations was developed, and a service contracted to external backups of servers and databases. The following actions were related to this aspect:

- In 2015 (Ordinary Meeting No. 789-2015, September 29, 2015), the Board of INEC approved the Security Framework of INEC for the information technologies service management. The actions to the security of databases are explicit in articles 26 and 90 of the Security Framework.
- In December 2015, INEC signed a contract for a backup service for the database in the "cloud", which allows for additional security measures.
- INEC has a backup of historical databases, i.e. final version of datasets that will not change any more.
- The Information Technology Strategic Plan (PETI for its acronym in Spanish) is available since the end of 2015. PETI considers actions related to information security.

165. The BCCR implemented policies and procedures for granting access to physical facilities in the data centres where digital information is stored. Equipment is located in high security sections to prevent unauthorized access. Physical and technological tools are used to allow access to data centres and for general facilities of the institution. The BCCR manages physical and logical access controls to all systems and services to prevent unauthorized access and disclosure. These controls include identification and authentication using username and password or digital signature certificates.

166. In addition, the BCCR applies mechanisms to detect suspicious activities, unauthorized and possible violations in the use of information systems by privileged users, regular users or unauthorized users. There are specific guidelines for auditing databases containing confidential

and critical information. Most systems have logs where all events held by user are stored, including unauthorized access attempts.

167. The BCCR deploys the technology system in a redundant infrastructure that enables high availability and low probability of irrecoverable loss information. Additionally, it has a framework for business continuity, recovery plans and automated processes for information and systems backups.

Good practice 4.5. Provisions are in place and internal guidelines are available to allow external users access to micro-data for statistical research purposes under strict protocols and only after anonymisation of the data.

168. The Dissemination Policy for Statistics and Delivery of Micro-data approved by the Board of Directors of INEC clearly establishes the procedure by which external users can access micro-data. Four types of micro-data files are available: (i) Public use files, contain anonymised micro-data released by INEC through its Internet webpage or through digital media (anonymisation ensures that statistical data may not be published or disclosed with an express reference to the persons and entities directly or indirectly involved); (ii) licensed files, with anonymised micro-data but without treatment to prevent possible indirect identification, their use is restricted to academic researchers and institution authorised end-users once a formal request to INEC which implies signing a contract to ensure the protection of confidential information and assure the formality of the transfer; (iii) non-accessible files when data are particularly sensitive or detailed, access is only possible through processing done by INEC and outputs are checked by INEC; and (iv) micro-data access for online processing (remote access), i.e. online access to anonymised micro-databases files. In the case of files with license, (unnamed files that have not been anonymized) a confidentiality agreement must be signed by the legal representative of the interested institution, and the names of the users must be specified. Additionally, this data can only be used for the purposes specified in the agreement.

169. By accessing micro-data through licensed files (ii) or non-accessible files (ii), external users may have access to non-anonymised statistical information what eventually, even unlikely, could allow the identification of any of the units of study.

170. As regards the BCCR, there is no specific policy for the dissemination of micro-data and requests of information are analysed individually on a case-by-case basis, in particular on confidentiality issues.

Good practice 4.6. Privacy issues as regards the use of new data sources (e.g. social network data) are identified and procedures are implemented to guarantee statistical confidentiality.

171. INEC is not using new data sources for the production and the dissemination of statistics and does not plan to introduce any specific procedures in addition to existing protocols and policies relating to administrative sources.

Overall assessment Recommendation 4:

172. The current laws in Costa Rica offer in-principle protection of statistical confidentiality. The Law No. 7839 and the Organic Law No. 7558 on the BCCR devote considerable attention to the protection of statistical confidentiality. Authorized producers only publish statistically protected data and they are aware of the issues considering statistical disclosure. To access micro-data, a specific protocol is defined by the Dissemination Policy for Statistics and Delivery of Micro-data approved by the Board of Directors of INEC in 2014. Up to now, there have not been any problems regarding disclosure of statistical data. However, additional strengthened

procedures to protect the privacy of data providers are advisable, in particular as regards the security and integrity of statistical databases, systematic information of respondents about the protection of confidential information, and signature of legal confidentiality commitment by all regular and temporary staff of the national statistical office and other producers of official statistics upon appointment, as well as any person engaged in official statistical operation (the commitment would remain binding even after the cessation of functions). Most of these procedures are included in the Law No. 9694, which also strengthens the sanctions in case of breach of confidentiality. In addition, the users should be widely informed of the INEC's policy on confidentiality thus improving their confidence in the capacity of INEC and other producers of official statistics, to effectively protect individual information. INEC informed the reviewers on its intention to develop short-term plans for improving this communication in the near future.

2.2.5. Recommendation 5. Ensure the right to access administrative sources to produce official statistics. To this end, Adherents should ensure that:

i. National Statistical Authorities have the right to access administrative data for the regular production of official statistics and to use them in the interest of ensuring quality of official statistics, raising the analytical value of official statistics, reducing burden on survey respondents and reducing the cost of statistical programmes.

ii. National Statistical Authorities co-operate with owners of administrative records as regards their statistical quality and have authority to influence their design to ensure they are fit for statistical purposes.

Good practice 5.1. The Statistical Authorities are authorised by law to use administrative records for the regular production of official statistics.

173. Article 5 of Law No. 7839 empowers the statistical institutions within the NSS to request non-confidential information from all natural and legal persons living in the country for the production of official statistics. This article also states that the statistical agencies shall request information from institutions of the public administration, as long as this information is collected for statistical purposes only, and that any State secret or legal provision prevents from providing access to this information. This exception in Law No. 7839 affects the capacity of INEC in particular to access important administrative records, such as fiscal data, social security, taxpayers, etc. In addition, the third principle of the National Code of Good Statistical Practices states that: "the Law authorizes the INEC and the NSS to access administrative registers if needed, in order to produce official statistics".

174. Article 8 establishes that all institutions of the NSS are required to provide information for the production of official statistics as defined in Article 15, which empowers INEC to use administrative records to produce official statistics in the following statistical domains: vital statistics, education, trade, environmental statistics, demographic statistics, foreign trade and building permits. However, INEC is unable to access all the required information from administrative records, even for these domains, because the owners of administrative data can refuse to provide information on the basis of Article 5 of Law No. 7839 which guarantees the confidentiality of individual information.

175. In summary, INEC faces considerable restrictions in practice in accessing taxpayer records and other administrative records. For example, the Statistics Department of the Social Security System (CCSS) does not transmit data to the INEC arguing limitations regarding confidentiality of information. INEC has signed an agreement with the MdH and the Social Security Agency to obtain information subject to strict confidentiality provision. However, it has not been approved

by the counterparts claiming legal reasons. The BCCR accesses much larger information from administrative sources, in particular data from the CCSS and tax data.

176. In such context, the adoption of Law No. 9694 significantly strengthens the legal right of the producers of official statistics part of the NSS to access and use administrative data for statistical purposes. Article 16 (Chapter II - Section III) The law lays down the obligation "to provide (…) in the required format, free of charge and within the specified period, data, statistical information and administrative records requested by NSS public institutions through its official, delegates, or commissioners, about facts, which by nature and purpose are necessary for the development of official statistics (…). This obligation includes all public administration officials who, due to their duties, are responsible for administrative records that are necessary for the development of official statistics". Article 17 reinforces the capacity of INEC to access and use administrative data and establishes that "INEC will have unrestricted access to administrative records of public institutions and to the information it deems necessary for the development of statistics and population directories, even for those institutions of which the delivery of information is protected by some kind of reservation (…)."

Good practice 5.2. Administrative sources are used whenever possible and cost-effective to avoid duplicating requests for information and reduce reliance on direct surveys.

177. There is no defined policy on the use of administrative sources for the production of official statistics in Costa Rica. However, the absence of such procedures is one of the recognised challenges that INEC will need to face in the near future. INEC only uses administrative records in the production of a limited number of statistical domains, including economic statistics, vital statistics, education, fiscal, demographic statistics, environment, trade, and construction permits. Administrative data are transmitted to INEC monthly through a digital process (ex. Ministry of Education) via printed forms (as for vital records and some constructions records), which is not the most convenient format for using information, or via electronic surveys (BCCR).

178. The BCCR uses administrative source for the production of official economic statistics, notably fiscal data and central government accounts from the MdH, employment and wage data from CCSS, incomes of free zone services companies and annual reports of operations of free zone companies from PROCOMER (Foreign Trade Corporation). The BCCR receives annual data for corporate income taxes and monthly data on sales taxes from the MdH, including detailed corporate income taxes by corporation and detail of some accounts of its balance sheets. The BCCR also receives periodically statistics on employment and wages by corporation from the CCSS, including information on public and private sectors. Central Government accounts and financial data on public corporations and other autonomic institutions are provided to the BCCR by the MdH and the Government Regulatory Office.

179. INEC is making efforts to improve co-ordination with a number of public agencies in order to use administrative records in the compilation of statistics. INEC has never used administrative records as a substitute for surveys while the BCCR complements to a great extent the information obtained from economic surveys using administrative records.

Good practice 5.3. National Statistical Authorities are involved in the design of administrative data in order to make administrative data more suitable for statistical purposes.

180. While principle 12 of the National Code of Good Statistical Practices states that "a pro-active effort must be done [by the statistical institutions within the NSS] to improve the statistical potential of administrative registers and to avoid conducting expensive direct surveys", there are no specific and formal guidelines for the statistical authorities to cooperate with owners of administrative data with the aim to influence the design administrative records for statistical

purposes. However, INEC has taken several initiatives to promote the use of administrative records by institutions of the NSS:

- In 2016, INEC organised training courses with support from the IDB,
- advised the Ministry of Social Development on the integration of various administrative records to develop an information system for the identification and monitoring of the beneficiaries of social programs, and,
- provided technical support to the Ministry of Culture for the development of a project on the improvement of records for statistical purposes.

Good practice 5.4. National Statistical Authorities co-operate with owners of administrative data in assuring data quality.

181. There are no technical guidelines for harmonizing the different variables in administrative records, nor is there a protocol to assess their quality systematically. Quality assessments of administrative records are conducted occasionally, as for example for the specific study comparing administrative records on births and deaths used in the production of vital statistics for the years 2006 and 2012.

182. The following initiatives are implemented among NSS institutions to further improve the quality of administrative records for the compilation of official statistics:

i. Co-ordination between INEC and the Ministry of Health to review the coverage and quality of statistics on maternal, infant, infectious and cancer;

ii. Inter-agency co-ordination to review the coverage and quality of the data including certificates of birth, death and marriage;

iii. Inter-agency Committee on External Trade Statistics, including the BCCR, INEC, Trade Office, and the MdH with the mission to analyse singular situations and suggesting and agreeing solutions.

iv. Ministry of Culture-INEC-UNDP Commission to improve cultural statistics records.

v. Technical group of water statistics to improve the compilation of statistics on water resources, mainly from administrative records

183. The quality of micro data is assessed systematically but the co-operation with the owners of administrative data in order to make data more suitable for statistical purposes remains limited. INEC compares similar data collected from several sources (ex. civil registration, Ministry of Health, etc.). In many cases, INEC complements administrative records with alternative sources (ex. hospitals when information provided by the Ministry of Health is incomplete).

184. There is no current strategic plan for the development of administrative data in the production of official statistics.

185. While the BCCR have not reported examples of cooperation with owners of administrative data in assuring data quality, it has proposed assistance in improving quality of administrative records.

186. The Law No. 9694 promotes the cooperation between the owners of administrative records and the producers of official statistics.

Good practice 5.5. Agreements are made with owners of administrative records which set out their shared commitment to the use of these data for statistical purposes.

187. An official agreement between the BCCR and the MdH ensures that the BCCR has access to fiscal data for statistical purposes only, notably to update the business register (see chapter 2) while guaranteeing confidentiality of statistical information.

188. INEC has also agreed with the MdH on mechanisms allowing a partial access to administrative records. INEC proposed a formal agreement to facilitate access to information on Direct Taxation including legal names, identification numbers, and value of the Gross Income (by intervals), consistently with governing rules of the MdH on confidentiality but it was unfortunately not approved by the Ministry.

189. As regards the CCSS, an informal verbal agreement previously ensured access by INEC to administrative records. However, this practical arrangement was increasingly affected by changes in the management of both INEC and the CCSS and a new formal agreement is now required, in particular for providing INEC with a regular access to administrative records from the Centralized Collection System. At the time of the review, CCSS's governing rules as regards confidentiality have not allowed INEC and the CCSS to reach such formal agreement.

Good practice 5.6. Recommended practices are available for the reporting and presentation of administrative data.

190. There are no specific rules for the reporting and presentation of administrative data, although institutions of the NSS are expected to apply the recommendations from the Costa Rican Code of Good Statistical Practices in this domain.

Good practice 5.7. Linking administrative data with survey data is encouraged by National Statistical Authorities with the aim of reducing the burden on respondents, reducing the costs in producing official statistics, and increasing the analytical value of official statistics.

191. Experience in linking administrative data with data from traditional surveys remains limited in Costa Rica and the reviewers encourage the producers of official statistics to develop a fully integrated production process, allowing to improve quality (coherence, timeliness, etc.) and efficiency (reduced response burden). A more integrated statistical production system would combine the use of administrative sources with traditional surveys thus improving the robustness of official statistics.

Overall assessment Recommendation 5:

192. INEC is restricted in accessing some administrative records (tax data and data from the Costa Rican Social Security fund that are classified information) even though the statistical legislation in principle enables access to and use of administrative data for the production of official statistics. This results in duplication in maintaining the statistical business register, and inhibits combining administrative and survey data, or integrating production processes to improve quality, efficiency and robustness.

193. The legal provisions should strengthen the right of statistical authorities to access, free of charge, administrative sources of all national and local authorities, i.e. data and metadata at the level of detail necessary for the production of official statistics. In the same time, statistical authorities should commit that all procedures are in place to guarantee the confidentiality of personal information.

194. The Law No. 9694 includes a strengthened legal right of producers of official statistics to access and use administrative records for statistical purposes without restriction, which would ensure that there is no longer duplication of work in the maintenance of the statistical business registers, and that inconsistencies in statistics would be more efficiently prevented. In particular, the Law No. 9694 creates an inter-institutional statistical commission, composed of

representatives from statistical units established in each administrative unit of the NSS, and promotes the cooperation between the owners of administrative data and the producers of statistics, in particular INEC, as recommended by the reviewers.

195. Until the full implementation of the Law No. 9694, the formal agreements or informal data transmission between INEC and the BCCR, MdH, and CCSS, may be required to facilitate the access by INEC to administrative records.

2.2.6. Recommendation 6. Ensure the impartiality, objectivity and transparency of official statistics, through the development, production and dissemination by the National Statistical Authorities of statistics respecting scientific independence put in place in an objective, professional and transparent manner in which all users are treated equitably. Equitable treatment implies in particular equal access to data by all users.

Good practice 6.1. Official statistics are collected, compiled and disseminated on an impartial and objective basis and determined by statistical considerations only.

196. The Costa Rican statistical legislation well establishes the independence and autonomy of INEC for the collection, compilation and dissemination of official statistics. In practice, these activities are not influenced by third parties. There is no evidence that this is not the case for the BCCR.

Good practice 6.2. Equal access to official statistics for all users at the same time is guaranteed by law. If a public or private body has access to official statistics prior to their public release, this fact and subsequent arrangements are publicised and controlled. In the event that a leak occurs, pre-release arrangements are revised so as to ensure impartiality.

197. Several articles (Articles 1, 2, 13 c), 18, 35) of Law No. 7839 are designed to regulate the dissemination of official statistics. Article 13 c) notably establishes that INEC is responsible to "c) Disseminate to the public, in a clear and timely manner, the results of its statistical activities as well as the methodologies employed. INEC shall publish statistical data in accordance with the schedule provided annually, which shall be published in January of each calendar year, in *La Gaceta* and other national mass communication media. Also, after consultation with the entities of the NSS, it shall set minimum standards for the frequency and quality of the dissemination of particular statistical information by the agencies". While there is no explicit provision in the law to equal access to official statistics for all users, principle 17 of the Code of Good Statistical Practice of Costa Rica deals with accessibility and clarity and includes a good practice on the equal access to official statistics.

198. Moreover, the Dissemination Policy for Statistics and Delivery of Micro-data enacted by the Board of Directors of the INEC in December 2014 establishes the free dissemination of official statistics produced by INEC and ensures that all users have equal access to official statistics and defines arrangements for pre-release access.

199. INEC's regulations of the Dissemination Policy for Statistics and Delivery of Micro-data state that "INEC (…) must ensure that the fundamental statistical data will reach all segments of society in equal conditions" and also establish the specific cases where INEC may allow the provision of data before their official release time, in particular when government authorities receive statistics 24 hours before their official release. Pre-release access to statistical information is also possible to subject-matter experts for validation of results, authorities to address national emergencies and media qualified cases that require wide and well-formulated dissemination, such as a census or a major methodological change. In the case of the media and qualified users that

decide to inquire at INEC, they must sign a confidentiality commitment, agreeing not to disclose statistical information. The decision to anticipate the delivery of statistical results is made by the Management of INEC, which sometimes needs to report to the Board beforehand.

200. However, these guidelines have not been implemented by all entities within the NSS. In particular, it does not apply to the BCCR, despite the important role of the Department of Macroeconomics at the BCCR in the dissemination of business, price and national accounts statistics. The IMF'SDDS indicates that the BCCR Board of Directors, which includes the Minister of Finance, has access to some statistics (e.g. Balance of Payments) before they are publicly released. The members of the Board include the President of the BCCR, the Minister of Finance, as well as academic and private sector members. This access to the data prior to their release is not communicated to the public on the Internet website of the BCCR, but is stated in the IMF SDDS metadata.

201. Users also have electronic access to a range of statistics on the main site of the BCCR, including economic indicators, publications, economic research, topics of interest and main indicators.

202. Users have access to statistics disseminated by other institutions of the NSS either through press conferences, printed publications and/or released via the corresponding website. However, each institution has its own mechanism for statistical dissemination.

203. For instance, the Costa Rican Social Security Fund (CCSS) publishes paper publications for data concerning General Statistics of Health Services, and Institutional Memory and Special Studies Publications are made online. It is possible to perform dynamic queries through Redatam[10] with some predefined indicators. Both internal and external users can perform specific queries of statistical data.

204. Similarly, in the Judiciary Branch, a set of statistical products offered by the Statistics Division at the Planning Department are available on the institution's website. These products range from summarized statistical information (tables and graphs), as well as documentation of conducted research. In addition, special or individual requests are answered, either through a filed document, emails or other means, depending on the formality of the request or the specific characteristics of the user population.

205. In the case of the Ministry of Public Education, the Minister holds a press conference when key statistics are released. The Press and Public Relations Office (DPRP, in Spanish) is the technical body responsible for providing advice in information, communication and public relations, ensuring the liaison with various institutions that make up the Costa Rican Educational System. This office is the only one authorised to provide information to the media.

206. With regard to the income, expenditure and financing figures of Central Government (Ministries and Powers), the MdH conducts a press conference on a monthly basis, which includes analyses on the trends and publishes this information, as well as the consolidated income and expenditure of the Public Sector figures, on its Internet website.

207. Similarly, the System of Dissemination of Economic Data at the BCCR makes the results of the indicators available to users in real-time.

208. Other institutions of the NSS do not have a privileged early access to statistical information released by INEC or by the BCCR.

[10] http://www.redatam.org/redatam/index.en.html

209. INEC is currently considering gradually extending the implementation of its dissemination policy to the NSS as a whole. This project would certainly improve the co-ordination of the dissemination of official statistics.

210. There is no evidence previously established to determine the user accessibility to data. INEC tests data accessibility when commissions or workshops with institutions, experts and researchers use data generated by the Institute, such as the BCCR, the Ministry of Labour and Social Security, the State of the Nation Program and other users. There are no accessibility complaints overall. The BCCR reports that there have been several follow-up studies on user access to statistics.

211. All institutions of NSS monitor access to statistical data through their websites where the number of visits and number of downloads are measured, as well as the micro-data transfers.

212. As per INEC, downloading information from databases for public use involves a preliminary "subscription" or registration. Access to licensed databases necessarily requires the user to make a detailed registration and allow for greater interaction with INEC staff. Other access to aggregated data is not monitored.

213. At the BCCR, information has been analysed using Google Analytics and other specific tools to monitor the number and frequency of visits to the website. The BCCR has a specific policy for information management. This policy establishes the Intranet as the official mean for the storage and internal dissemination of the information produced by the BCCR. It also defines the roles and responsibilities in the processes of storing, editing and granting access to this information. Regarding anticipated release of statistics for internal use, the BCCR does not have a specific policy, and has no immediate intention of developing such a policy.

Good practice 6.3. Choices of sources and statistical methods, as well as decisions about the dissemination of statistics are informed by statistical considerations.

214. National statistical authorities in Costa Rica decide the most appropriate data sources and statistical methods for the collection, production, and dissemination of data. Details on sources and methods are described in metadata, and made available to users on the internet websites of the statistical authorities. However, divergences from international standard statistical concepts and definitions are not always sufficiently apparent.

Good practice 6.4. Errors discovered in published statistics are corrected at the earliest possible date and publicised.

215. When an error is identified, subscribers to the INEC's mailing list receive a newsletter with corrections. INEC does not foresee any other public announcements.

Good practice 6.5. Information on the methods and procedures used is publicly available.

216. Concerning statistics produced by INEC, some metadata is accessible online (only in Spanish) in a way that allows clear understanding by a wide range of users. A methodological summary is published on the website of INEC, along with complementary relevant documents, through the Accelerated Data Program (see section 9.4).[11]

217. Several institutions of the NSS are currently developing manuals specifying the nature of the variables, the monitoring strategy and methodology used in collecting statistical information.

[11] www.inec.go.cr (Home -> data Documentation -> Accelerated data Program)

218. For the BCCR, some scarce statistical metadata are available on the BCCR's website and the IMF's website according to the framework of the IMF SDDS.[12] Similar information is available in Spanish and in English on the Internet website of the BCCR.

Good practice 6.6. Statistical release and statements made in press conferences are objective and non-partisan.

219. INEC holds circumstantial press conferences or releases paper publications to disseminate relevant statistical information resulting from its statistical operations. Through its internal Dissemination Policy for Statistics and Delivery of Micro-data, INEC is empowered to determine the standardization and frequency of its publications, and to ensure that data dissemination complies with the principles of relevance, protection of confidentiality, timeliness, quality and transparency.

220. In the recent years, the BCCR has developed internal work processes and communication strategies in order to provide information to economic operators and the general public on the issues that are relevant to the Costa Rican economy. This work involves various actions ranging from the regular publication of macroeconomic statistics in the country, to the dissemination of research and analytical documents on the national economy, as available on the BCCR's Internet website. In addition, the BCCR organises press conferences to announce and discuss the most important macroeconomic figures, the projects in which the institution is involved, the decisions of monetary and exchange rate policies, macroeconomic statistics and developments in payment systems, etc.

221. In practice, only few institutions within the NSS (including the Ministry of Public Education or MdH) release their statistics through a press conference. Nevertheless, these authorities are allowed to organise press conferences in the context of special events or the publication of annual reports.

222. There are no specific guidelines as per objectivity, but the improvement and transparency in public service is within the framework of institutional policies, and therefore no particular individual interests' conflict at the time of providing statistical information.

223. Although not directly related to press conference, some statistics produced by the BCCR are included in official presentations to the media.[13]

Good practice 6.7. Statistical release dates and times are announced in advance. A twelve-month-ahead advance release calendar is provided. Official statistics are released according to a standard daily time. Any divergence from the dissemination time schedule is publicised in advance, explained, and a new date is set.

224. According to the Dissemination Policy for Statistics and Delivery of Micro-data, an advance release calendar announcing data releases for the year is published every year in January on INEC's website and in the official newspaper *La Gaceta*. This calendar includes all publication dates of statistics released by INEC during the current year and is accessible via INEC's website (www.inec.go.cr Home -> Publications - Annual Calendar). The calendar is available in Spanish only.

225. Prior to the accession process, the BCCR compiled an advanced release calendar of economic data release dates in accordance with IMF requirements for the dissemination on the IMF SDDS webpage. During the accession process, both INEC and the BCCR implemented an

[12] http://dsbb.imf.org/Pages/SDDS/CtyCtgList.aspx?ctycode=CRI

[13] http://www.bccr.fi.cr/discursos_preSentaciones/index.html

advance release calendar with fixed and unchangeable release dates and times twelve month ahead, which ensure transparency and strengthen the perception of independence of the data dissemination. INEC and the BCCR publish such advance announcements on their website. The BCCR extended the time coverage of the existing calendar, which now allows users to retrieve release information by indicator for the next twelve months. The advance release calendar is available on the webpage dedicated to economic indicators.[14] To cater for releases well into the future, BCCR maintain a "release no later than" category or use a range of dates. Releases may be earlier than this date (though in practice are firmed up nearer the time) but never later.

226. Economic statistics are released punctually according to the preannounced schedule [IMF 2010, National Accounts, p. 28]. In addition, a specific calendar, starting in December 2015, is available for the dissemination of the national accounts compiled according to the new base year. In the advance release calendar available on the BCCR's website, tables with data are linked to methodological information. When methodological changes occur, documents and tables are updated, and technical notes related to these changes are released. For instance, the methodology for calculating the Producer Price Index was changed in February 2015 and information on these methodological changes was disseminated through the Internet website of the BCCR.[15]

227. Internal regulations give detailed explanations about the planning procedure for the release calendar. In case of unexpected events generating delays in the publication (once or twice per year), specific information for users is made available on the website and identified users are notified by email. This information is removed from the website, after confirmation of the next release date. However, these events are extremely rare.

228. Most of the other producers of statistics within the NSS do not provide an advance release calendar on their website, and report that they have unwritten rules on which day the data are published, but this is not formalised and made clear for the public as a whole. In that case, statistical authorities consider that, in practice, the regularity in the releases of publications and data is well known by users. For example, monthly publications of the Costa Rican Social Security Fund usually occur twenty-two days after the reference period. The Judiciary Branch usually works with monthly and quarterly cuts for statistics relating to jurisdictional and auxiliary offices of Justice (Public Ministry and Public Defence), except for those relating to the Judicial Investigation Organization (OIJ, in Spanish) whose cuts are annual given the methodology of data collection. Furthermore, Article 179 of the Statutory Law of the Judicial Branch indicates that offices and judicial offices should forward the information to the Statistics Department of Planning five working days after each reference quarter. The MdH disseminates an advance release calendar[16] according to IMF's requirements and compliance with SSDS. A release calendar is also available for fiscal statistics.[17] Data on consolidated revenue and expense of the Public Sector are released in June every year.

229. By Article 25, Law No. 9694 requires that institutions of the NSS publish on their website a twelve-month a-head advance release calendar with fixed and unchangeable release dates and

[14] http://indicadoreseconomicos.bccr.fi.cr/indicadoreseconomicos/Documentos/NEDD/Calendario-ing.htm

[15] http://indicadoreseconomicos.bccr.fi.cr/indicadoreseconomicos/Documentos//DocumentosMetodologiasNotasTecnicas/Nota_ipp_man.pdf

[16] http://www.hacienda.go.cr/contenido/139-cifras-mensuales-de-ingresos-gastos-y-financiamiento-del-gobierno-central and http://www.hacienda.go.cr/contenido/140-consolidacion-de-ingresos-gastos-y-financiamiento-del-sector-publico-costarricense

[17] http://www.hacienda.go.cr/contenido/82-calendario-de-publicacion-de-estadisticas-fiscales

times, which ensures transparency and strengthens the perception of independence of the data dissemination.

Good practice 6.8. Any major revisions or changes in methodologies are announced in advance.

230. Documentation on changes in methodologies by the INEC and BCCR is published simultaneously with the release of the results or new time-series. For example, for the Continuous Survey of Employment, the INEC released the document entitled Methods and Procedures (available on INEC's website) to provide updates on methodological changes made on encodings, samples or projections and information on their impact on data.

231. In the case of major methodological changes, such as changing the base year of National Accounts, the measurement of employment, or the measurement of poverty, a timetable for their proposal and implementation is developed.

232. Virtually none of the other institutions within the NSS produce a public timetable on methodological changes.

Good practice 6.9. Internal guidelines are made available by statistical authorities to respond to erroneous interpretation and misuse of statistics. They are well-known by staff.

233. Currently, INEC does not have internal guidelines for responding to misinterpretations, if such situations occur, the management decides on a case-by-case basis.

Good practice 6.10. Statistical plans and programmes, methodologies, processes and procedures, quality assessments are made publicly available by the statistical authorities.

234. The 2012-2016 and 2018-2022 National Statistics Plans are publicly available on the Internet website of INEC. There is no clear policy on making available information on the monitoring of their implementation by the statistical agencies in the NSS.

235. Article 6 of Law No. 9694 introduces a ten-year National Statistical Development Strategy, which will run through the quinquennial National Statistical Plans developed by INEC in cooperation with all the members of the NSS, and then approved by the Board of Directors of INEC. Strategies and actions established by these plans are mandatory for NSS members.

Good practice 6.11. Guidelines exist for the presentation of data, including the treatment of time series breaks, and seasonally adjusted data, with the aim to ensure that official statistical data and metadata are presented in a way that facilitates proper interpretation and meaningful comparisons.

236. While INEC and the BCCR provide information to help users to understand and facilitate proper interpretation of official statistics, there are currently no specific guidelines, either at INEC or the BCCR, for the presentation of data and time series and for the treatment of time series breaks or seasonally adjusted data.

237. INEC is currently preparing a Guide for the Presentation of Statistical Tables and Charts, with the aim to update information from the "Manual for presenting Statistical Tables and Charts" developed by the Statistics Department at the Ministry of National Planning and Economic Policy (MIDEPLAN) in 1982.

238. Since 2002, all INEC printed and online publications are designed in accordance with the Manual of Graphic Image which integrates guidelines for visual elements representing the institution such as branding, stationery, typography, format of statistical tables and charts, questionnaires, print ads, signage, etc.

239. INEC customarily delivers the results of statistical operations, newsletters and manuals where metadata and implemented methodology are explained, in order to give users appropriate information to interpret data correctly and to facilitate comparison.

240. INEC has no general guidelines for the treatment of time series breaks. When time series are analysed, the need to apply adjustment processes is reviewed in each individual case and the processes or any changes in methods are detailed in available metadata and methodological information. In practice, each statistical operation works with breaks in time series on a case-by-case basis:

- vital statistics: INEC considers that guidelines are not required because users are duly informed of the only change over time, i.e. the introduction of new variables;
- population estimates and projections: the methodology ensures the production of long time series without breaks;
- housing surveys: there is no guideline establishing a specific treatment of time series breaks, each case being considered individually in order to achieve some level of comparability. Otherwise, users are duly informed; and,
- Consumer Price Index (CPI): new time series are linked to the previous versions in order to provide long time series. In the same time, information on methodological changes, including changes in the composition of the basket of goods and services and in the structure of their estimations, is made available to users;
- Continuous Survey of Employment (2010-2014): no break has been identified, and small variations are explained through a log procedure, providing the type of change made (phrasing, new question, changes in passes, coding changes, etc.). Time series on employment and income presents breaks due to changes in the sampling frame, sample design, thematic and operational changes, and changes in classifications. INEC is currently linking indicators of employment and income but only to correct population estimates.

241. The BCCR had no guidelines for the presentation of time series, including seasonally adjusted data. In practice, the figures are presented in original series and trend cycle (variation levels and percentage). The seasonally adjusted time series are calculated but not published. However, in the process of the Secretariat's statistical review, the BCCR started to release seasonally adjusted time series on its Internet website in June 2015 and to transmit them to the OECD.

242. The BCCR has a documented process called Process of Production and Dissemination of Economic Information. The following guides are part of this process:

- Analysis of Macro-economic Statistics. Area of Statistics of Goods and Commerce.
- Analysis of Macro-economic Statistics. Area of Statistics of the External Sector.
- Analysis of Macro-economic Statistics. Area of Statistics of Institutional Sectors.
- Analysis of Macro-economic Statistics. Area of Statistics of Services and Construction.
- Analysis of Macro-economic Inter-relations. Area of Monetary and Financial Statistics.
- Approval of Macro-economic Statistics. Area of Statistics of Goods and Trade.

- Approval of Macro-economic Statistics. Area of Statistics of the External Sector.
- Approval of Macro-economic Statistics. Area of Statistics of Institutional Sectors.
- Approval of Macro-economic Statistics. Area of Statistics of Services and Construction.
- Code Assignment and Sectorisation of Basic Statistical Data. Area of Monetary and Financial Statistics.
- Calculation of index numbers.
- Consolidation of Statistical Data. Area of Monetary and Financial Statistics.
- Definition of Sampling Framework.
- Sample design.
- Preparation of Comments, Graphics, Reports and Forecasts. Area of Monetary and Financial Statistics
- Collection of Basic Statistics. Area of Statistics of Goods and Commerce.
- Collection of Basic Statistics. Area of Statistics of the External Sector.
- Collection of Basic Statistics. Area of Statistics of Institutional Sectors.
- Collection of Basic Statistics. Area of Statistics of Services and Construction.
- Collection of Basic Statistics and database loading. Area of Monetary and Financial Statistics.
- Validation of Basic Statistics. Area of Monetary and Financial Statistics.

243. BCCR has no guidelines for the treatment of breaks in the time series but plans to provide such documentation in the near future.

Overall assessment Recommendation 6:

244. In Costa Rica, official statistics are collected, compiled and disseminated on an impartial and objective basis. While the statistical legislation and the National Code of Good Statistical Practice ensure that all users have access to official statistics, the law does not guarantee an equal access to official statistics for all users at the same time.

245. INEC launched an internal dissemination policy in December 2014, establishing the free dissemination of official statistics produced by INEC, and ensuring that all users have equal access to official statistics in practice. This dissemination policy informs users on the pre-release arrangements and thus ensures transparency on these practices. However, the dissemination policy concerns INEC only while all the entities of the NSS have their own process for disseminating statistics. The coordinating role of INEC as regards the dissemination of official statistics would be strengthened by extending the dissemination policy to the NSS as a whole. The implementation of the Law No. 9694 contributes to improving the situation in that regard.

246. During the accession process, INEC and the BCCR implemented a twelve-months-ahead advance release calendar with fixed and unchangeable release dates and times, which ensures transparency and strengthens the perceived independence of data dissemination.

2.2.7. Recommendation 7. Employ sound methodology and commit to professional standards used in the production of official statistics.

To this end, Adherents should:

- ***i. apply appropriate statistical procedures and methods, including a stated revisions policy;***
- ***ii. strive to adhere to international norms and standards, such as methodological manuals developed by the United Nations Statistical Commission or by the OECD, and international classifications in the statistics collected by the OECD.***

Good practice 7.1. Official statistics are produced according to strictly professional considerations, including scientific principles and professional ethics with regards to methods and procedures used for the collection, processing, storage and dissemination of statistical data.

247. In Costa Rica, principles governing public statistics, i.e. impartiality, professional considerations, professional ethics with regards to methods and procedures are reflected in the statistical legislation. In practice, INEC and the BCCR are producing statistics according to these principles through a longstanding commitment to quality and users and authorities recognise consequently the credibility of statistical methods implemented. While a large proportion of official statistics are produced elsewhere, INEC is legally responsible of the co-ordination of statistical activities within the NSS and for the credibility of official statistics produced by other entities. To do this effectively, INEC needs sufficient authority and to be properly resourced particularly in regard to the availability of sufficient numbers of appropriately qualified staff.

Good practice 7.2. Sound statistical methodology requiring adequate tools and procedures and expertise is implemented and guaranteed by the national statistics law.

248. Sound statistical methodology underpins quality statistics, and adequate tools, procedures and expertise are required to facilitate this. The functions of INEC established by Article 13 of Law No. 7839 and confirmed in Article 33 of Law No. 9694 include: "Establish standards, models, formats and terminology that will govern the statistical production processes by entities of the NSS, to integrate, in a consistent manner, economic, social, and environmental data in the country". Over the last years, the INEC and the BCCR implemented significant efforts to implement sound statistical methodologies but conclusive evidence has not always been presented that shows that adequate procedures are in place to monitor and ensure that the concepts and definitions required by the national statistical plan are adhered to, or that the best methodological solutions are followed in practice, by all the institutions of the NSS. The full implementation of Law No. 9694 would significantly improve the quality of official statistics in that respect.

Good practice 7.3. International statistical standards, guidelines and good practices applied in the NSS as appropriate.

249. As explained in each specific chapter of this statistical review, INEC and the BCCR have a reasonably good record in the implementation of international statistical standards, guidelines and good practices. The implementation of the 2008 SNA and the subsequent release of national accounts statistics compliant with international standards in 2016 has been a major step towards this achievement.

Good practice 7.4. National statistical classifications developed by statistical authorities are consistent with international classifications. Detailed concordance exists between national classifications and the corresponding international classifications.

250. In general, there appears to be broad overall compliance with international classifications in Costa Rica and within the national statistical system. In particular, the implementation of the

2008 SNA in 2016 represented a significant step towards the implementation of international classifications by INEC and BCCR (see chapter 2 for more details on each classification).

251. Law No. 7839 (articles 3, 13a and 22a) puts INEC in charge of ensuring the creation, monitoring and dissemination of standards and classifications as well as enforcing compliance. While INEC and BCCR have mostly met their obligations as per the law, there is still a reasonable amount of work to be done in the rest of the NSS and the implementation of the Law No. 9694 contributes in achieving this.

Good practice 7.5. Procedures are in place to ensure that standard concepts, definitions and classifications are consistently applied throughout the National Statistical Authorities.

252. According to Article 3 of the Law No. 7839, all agencies of the NSS "shall apply the same standard system of concepts, definitions, statistical units, classifications, nomenclatures and codes that enable the comparison, integration, and analysis of data and results. For this purpose, INEC shall issue the relevant technical regulations." Article 13a) and 22a) further outline INEC's role in defining and establishing standards and classifications to be used by institutions within the NSS.

253. According to INEC, it has been working to achieve the implementation of international classifications both internally and for the NSS since its creation and as per the law. A Presidential Decree (No 38715-PLAN18) issued in 2014, which instructs the NSS, in close cooperation with INEC, to explicitly implement "Clasificaciones de Ocupaciones (COCR-2011) y de Actividades Económicas de Costa Rica (CAECR- 2011)" [International Standard Classification of Occupations (ISCO) and the International Standard Industrial Classification of All Economic Activities (ISIC)] has seen a measured improvement in the implementation. Article 1 of the Decree compels the public institutions in the NSS to "…apply the classifications in the development of activities and statistical processes". It also states that "NSS and its affiliated institutions cannot modify the classifications that are within other classifications, which are made up of 4 digits. NSS and its institutions may open the classifications from the 5th digit on for specific uses of the institution's tasks, but this action may not take place before previously informing INEC". The improvement in the implementation of these classifications has been seen, both in agencies in the NSS implementing these classifications and has also helped INEC exert its legal obligation to ensure that all agencies in the NSS are using (adopted or adapted) international classifications.

254. In 2009, INEC created an Internal Commission of Statistical Classifications with the objective to support statistical operations and implement new versions of international classifications in order to ensure the ongoing harmonisation of official statistics in the country. To date, the commission is composed of four INEC units (household surveys, business directory, economic statistics and NSS co-ordination) who are working on the national economic activity and occupations, based on international recommendations ISIC Revision 4 and ISCO 08.

255. INEC also proposed to establish an interagency commission to follow up the work involved in implementing the new international recommendations in the activities of the National Statistical System.

256. INEC has also participated in the UN- ECLAC Working Group on International Classifications which aimed to support countries in the adoption or adaption of new versions of

[18] http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=78529&nValor3=98980&strTipM=TC

international classifications. The group has met four times, in 2012 (Chile), 2013 (Mexico), and 2014 (Colombia), 2015 Costa Rica and 2016 (Panama).

257. The INEC's website[19] launched in 2016, provides detailed information on standards and classifications, including explanatory notes, correspondence tables, search facility, adaption of the Standard International Trade Classification (SITC Rev.4); development of a geocoding manual (a preliminary proposal being reviewed by users); training on the implementation of ISIC Rev.4; the Classification Manual Standard International Trade Classification (SITC), Revision 4 Fifth Amendment updated 2012),[20] etc.

258. There are no established formal procedures to ensure the standardized application of concepts and definitions in all the institutions in the NSS, except the Costa Rican Code of Good Practices in Statistics adopted by the Board of Directors of INEC in December 2014, to which all the institutions of the NSS have to adhere and implement this Code of Practice in compliance with an executive decree of implementation.[21]

259. In September 2015, the *Costa Rican Code of Good Practices in Statistics* was presented to the institutions of the National Statistical System and the majority of the entities adopted it formally through a letter of commitment.

260. INEC is monitoring the implementation of the Code of Good Practices in two phases: (i) in 2014 at the level of the National Statistical System through the use of the Tool for Assessing Statistical Capacity with the assistance of the Inter-American Development Bank; and (ii) in 2015, via the Snapshot tool of Eurostat to get an individual evaluation of the implementation of the good practices at the level of each entity of the National Statistical System. In early 2016, the overall results as well as the results for each entity were presented with the aim to propose an improvement plan for each institution and to monitor its implementation on a regular basis.

261. In Dimension B, corresponding to "Statistical Processes", the Code of Practices recommends that: "The guidelines, norms, and good practices, both national and international, are the basis for the development of methodologies and processes of a high-quality statistical production". Moreover, and based on the compliance criteria 9.1, the following is proposed: "There must be an agreement to implement the methodologies, concepts, classifications, and good practices that follow the national and international direction and guidelines that are used." In practice, the most frequently used mechanism is the constitution of inter-institutional commissions, or ad hoc groups.

262. INEC's employees have received appropriate training for the adaptation or adoption of international classifications, which was also facilitated by the creation of an internal commission for the purpose of clarifying issues relative to the implementation of the international classification and standardising the classifications. The extension of this commission as an inter-institutional commission responsible for the co-ordination of the adoption and updating process of the classifications represents an important step towards an efficient implementation of international classifications in the NSS.

Good practice 7.6. Subject matter advisory committees made up of external experts advice on relevant statistical matters.

[19] http://www.inec.go.cr/sitiosen/sitiosen/

[20] http://www.inec.cr/sites/default/files/documetos-biblioteca-virtual/meclasificacioncuci.pdf

[21] See the list in Annex 2.A.

263. In Costa Rica, there are fifteen active interagency committees, dealing with the production, dissemination and quality of official statistics. In addition, INEC and the BCCR communicate directly with other ministries on particular statistical issues. For instance, INEC interacts directly with the Ministry of Agriculture for the National Agricultural Census, or with the Ministry of Education for the Population and Housing Census (teachers composed a large proportion of enumerators for the 2011 Census of Population and Housing).

Good practice 7.7. Graduates in the relevant academic disciplines are recruited.

264. The recruitment process is the same for all the professionals in statistics at INEC. The Human Resources Unit has an updated online database, which contains information on candidates for various statistical domains. The recruitment process begins with the reception of the applications by specific area at the Human Resources Unit. A first selection is done based on information in the database, and then, documents provided by the candidates are checked. Thereafter, indicators and processes used to evaluate the candidates are selected (written and oral tests and fieldwork are often required). Finally, three candidates are selected and interviewed, and a final report with the results of the recruitment process is presented.

265. There is no strategy for the integration and training on methods and standards applied in the various statistical processes for professionals recruited as statisticians. In practice, a recruited professional starts working with tasks corresponding to his appointment. While most experienced statisticians provide assistance to the new comers, skills mainly relies on practices ("learning by doing").

266. A measure was implemented in order to retain professionals in statistics in the public sector through the introduction of a bonus in relation to other professions in the market. However, this was a temporary measure revised periodically on the basis of the market behaviour of professionals in statistics

Good practice 7.8. Co-operation with the scientific community, academic institutions and international organisations is organised to improve methodology and the effectiveness of the methods implemented, and to improve methodological and technical skills of staff.

267. INEC has signed a number of agreements with public universities on various topics such as information systems, information analysis, training, delivery of information, etc. There are currently a total of ten signed and existing agreements with various public academic centres. Table 3 shows the distribution by academic unit of the existing agreements between the INEC and other institutions.

Table 3. Agreements between INEC and public universities in 2015

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Universities	Number of agreements
Universidad Estatal a Distancia (UNED)	1
Universidad de Costa Rica (UCR)	5
Universidad Nacional (UNA)	1
Instituto Tecnológico de Costa Rica (ITCR)	1
Consejo Nacional de Rectores (CONARE)	1
University of Minnesota	1
Total	10

Source: INEC.

268. In addition, the National Consultative Council on Statistics (Conace) is an advisory body, represents users and producers of statistics established in 2013 and created by Law No. 7839 is replaced by Law No. 9694 (Article 26), which instructs to: "create the National Advisory Council for Statistics, hereafter Conace, as an advisory body for users of statistics. Public sector institutions, business organisations and social, economic, and academic institutions will be represented by it".

269. INEC has the opportunity to consult with external professionals on specific subjects such as new operational statistics, major changes in methodologies, or relevant operational statistics (population, housing, agronomic surveys, etc.).

270. The advice is provided by request from INEC, and academic and non-academic experts are available nationwide. Also, INEC works with international specialists who come from international institutions, such as the International Labour Organization (ILO), the United Nations Economic Commission for Latin America and the Caribbean (CEPAL in Spanish), the United Nations Population Fund (UNFPA), among others, as well as from statistical institutes in Latin America through the South-South cooperation, or in countries like Canada and the United States of America.

Good practice 7.9. Strategies for recruitment, as well as processes for technical and managerial development and training of existing staff, are established, implemented and revised as required.

271. Strategies for recruiting and training are severely affected by the major issue of the turnover of the staff discussed in the recommendation on the adequacy of resources. Training of current staff in technical areas takes place by means of an offer from the international cooperation programs, and the employees can attend workshops, short-term courses, seminars, conferences, meetings, and internships, among other options.

272. The South-South cooperation program offers opportunities for internships in other statistical institutes. Regarding training in the area of governance, some money is saved to hire trainers from specialized bodies, such as universities or high-level institutes; the idea is to reinforce some topics. Nevertheless, this is not frequent, and is not part of any policy of development program for the personnel.

273. In the case of the process of rotating the personnel as a way to train the employees in technical or management aspects, there is no specific protocol; instead, the rotation takes place when the managers consider it necessary based on employee availability. The reason to do so is that INEC is usually understaffed, and as public autonomous institution, has a restricted budget. In this context, moving employees to other public institutions, or international organizations, is not part of any related institutional policy. Employees with high technical skills trained by INEC leave the organization with expectations of better wages, as they are highly valued in the job market. In this context, the retention of employees with high technical skills is a matter of concern for INEC although the organisation does not have an organized retention program. A measure taken in order to retain professionals in statistics in the public sector is to allow a bonus in relation to other professions in the market. However, such measure is temporary and would need to be revised regularly in order to reflect accurately the market behaviour of statisticians in Costa Rica.

Good practice 7.10. In the case of statistical surveys, questionnaires and systems for production are systematically tested prior to the data collection.

274. INEC and the BCCR implemented institutionalised practices of testing specific questionnaires and to validate the questions. In the case of new statistical operations, or significant changes, tests integral pilots are conducted to test the questionnaire, measuring times interview,

validate the training, testing computer systems and other survey procedures. These tests allow adjustments to the instruments and procedures.

Good practice 7.11. Parallel runs are undertaken when systems or questionnaires are redesigned in any significant way.

275. Before 2009, there were no parallel runs when systems or questionnaires were significantly redesigned. In 2009, the redesigned National Household Survey based on a new methodology was carried out by INEC simultaneously with the survey based on the old methodology.

276. At the BCCR, when a survey methodology has changed, a parallel run is necessary. Both of the old and new survey methodologies are applied simultaneously for a few months.

Good practice 7.12. Survey designs, sample selections and estimation methods are well based and regularly reviewed and revised as required.

277. Survey designs, sampling and estimation methods are reviewed by the Costa Rican statistical authorities at least every ten years, after each decennial population census. At this time, estimates are revised, a new sample frame is prepared, and the sample design is reviews and appropriate adjustments are implemented.

278. In addition, comprehensive reviews of survey designs are made when there are significant changes in international recommendations and/or new demands from users. For example, the sampling design of household surveys was revised and adjusted to the new sampling frame after the 2011 Census. During the years 2014 and 2015, further changes were applied to the samples. In 2016, a programme of redesigning surveys was launched with two objectives: (i) to adapt to new user requests; and (ii) to streamline data collection and lowering the burden of reporting. This project is expected to be developed in 2016, 2017 and 2018. The project was submitted to the World Bank and other supporting agencies for consideration and Costa Rica expects being able to launch it in 2017. The last comprehensive review of the Household Survey Program was conducted in 2009 and 2010.

Good practice 7.13. The business register and the frame for population surveys are regularly evaluated and adjusted if necessary in order to ensure high quality.

279. The Register of institutional units and establishments (DEE) is a tangible output of the collaboration between the INEC and the BCCR. However, Costa Rica stands out for having a double statistical business register, one in INEC, the DEE, and one in BCCR, REVEC. Chapter 2 of the present survey describes these systems and formulates some recommendations. The most pressing questions relate to INEC's inability to access key administrative data, namely tax records (from the Tax Directorate of the MdH) and the monthly payroll data (CCSS) from the Costa Rican Social Security Agency.

Good practice 7.14. Data collection, data entry, and coding are routinely monitored and revised as required.

280. Procedures of supervision and quality control are in place at each stage of the surveys. At INEC, statistical surveys are carried out by field teams composed of three interviewers and a supervisor, responsible for the appropriate implementation of the sample, the monitoring of the interview, the re-interviews, and a first examination of information collected. In addition, the samples are also controlled during the encoding process, and the "software consistency of responses" are evaluated in order to detect errors. If deemed necessary, validation can be complemented by telephone calls.

281. The BCCR has a group of interviewers and a supervisor who requests information by phone calls or e-mails with the questionnaire, and visit the companies if necessary. After the encoding and data entry process, information from interviews is verified and calls are made. Finally, an analysis is carried out and a general review report is sent to another department.

Good practice 7.15. Appropriate editing and imputation methods are used and regularly reviewed, revised or updated as required.

282. Since 2010, INEC uses the imputation method for income variables from the National Household Survey (ENAHO). Methods are not revised or adjusted and the same rules apply in case of missing values: it performs only for the income adjustment for underreporting, for which additional income is imputed and then it is added to declared income. This method of imputation is based on fixed factors based on information from the national accounts for five income groups. These factors are not reviewed or updated regularly as they remained fixed since 2012.

283. In the case of the National Survey of Household Income and Expenditure (ENIGH), assignments for variables of income and expenditure are also performed, whose methods themselves are reviewed every time a survey is conducted. However, this is not a regular practice and methods are not standard between surveys, since there are no guidelines, or a person, or group to co-ordinate this process at INEC. For that reason, the way of application the method is investigated and implemented in each statistical operation on a case-by-case basis.

284. At the BCCR, the imputation methods do not have the same rules in every survey also.

Good practice 7.16. Revisions follow standard, well-established and transparent procedures.

285. There are no standards or guidelines for handing revisions of statistics in Costa Rica. When significant methodological changes are implemented, users are consulted and results of consultations are released publicly.

Good practice 7.17. A revision schedule is published by the producers of official statistics.

286. The INEC and the BCCR do not publish timetables for revisions.

Good practice 7.18. The design of statistical questionnaires used in survey-based data collection processes is regularly reviewed.

287. The INEC revises the design of statistical questionnaires used in survey based data collection according to changes in international recommendations or to important demands from users. Examples include: (i) 1987 and 2010, revision of household surveys in the measurement of income and employment; (ii) 1995 (data 1988), 2008 (data 2004), 2015 (data 2013) changes in Consumer Price Index; and (iii) 1991 (base 1988), and 2016 (base 2012) implementation of new base years in National Accounts (BCCR).

Overall assessment Recommendation 7:

288. INEC has legal responsibility to ensure that the methodology used in the production of official statistics is based on appropriate statistical procedures and complies with international statistical norms. INEC and the BCCR have made efforts to adopt international standards and sound statistical methodology, notably by implementing the System of National Accounts 2008 (2008 SNA) in the national accounts statistics released in 2016. INEC developed a sound national statistical plan for 2012-2016, and then for 2018-2022, in cooperation with other NSS entities, and in 2017, the reviewers encouraged Costa Rica to develop new multi-year plans and to consider their implementation and evaluation processes. INEC also implemented efficient procedures and guidelines for disseminating data and metadata (in Spanish and in English) for free as part of its

corporate dissemination policy, designed a web platform for official statistics produced in the NSS, and launched a corporate database promoting the use of standard statistical concepts and international classifications. Finally, both INEC and the BCCR implemented a twelve-months-ahead advance release calendar with fixed and unchangeable release dates and times, which ensures transparency and strengthens the perceived independence of data dissemination.[22]

289. While according to the statistics law, statistical standards, concepts, classifications, nomenclatures and codes should be applied by all the agencies within the NSS, it is not clear that adequate procedures are in place to ensure that the concepts and definitions required by the national statistical plan are adhered to by all entities of the NSS. The implementation of Law No. 9694 would contribute to ensure progress in this regard, under the coordination of INEC.

290. As regards the statistical procedures, INEC and the BCCR already implemented good statistical practices such as the systematic test of new questionnaire and systems, and parallel runs conducted when systems and questionnaire are redesigned. However, the design of statistical questionnaires used in survey based data collection is revised according to changes in international classifications and survey designs, sampling and estimation methods are reviewed every ten years, after each decennial population census; and there are no standard or guidelines for these revisions. Guidelines for presenting data, time series breaks, seasonally adjusted data, are not systematically available and INEC is encouraged to develop systematic procedures in this area. The BCCR also plans to implement such guidelines in the future.

291. The current projects developed by the INEC for implementing the Law No. 9694, assisting the agencies in implementing the international classifications, including the creation of a specific website, explanatory notes, correspondence tables, and the enlargement of the existing Commission of Statistical Classifications should be encouraged. The Law No. 9694 provides INEC with authority and appropriate resources, notably in terms of appropriate competencies, to fulfil its responsibilities over the NSS as defined by the statistical legislation.

292. Finally, there is no framework for the revision of data but users would benefit in having access to a document on an overall revision policy.

2.2.8. Recommendation 8. Commit to the quality of statistical outputs and processes, in particular to key quality dimensions as defined in national and international quality assessment frameworks, for instance in the Quality Framework and Guidelines for OECD Statistical Activities: timeliness and punctuality (statistics are released in a timely and punctual manner); relevance (statistics meet the needs of users); accuracy (statistics accurately and reliably portray reality); credibility (confidence is placed by users in statistical products); coherence and comparability (statistics are consistent internally, over time and in space and it is possible to combine and make joint use of related data from different sources); and interpretability and accessibility (see Recommendation 9).

Good practice 8.1. A quality policy ensures that the producers of official statistics systematically assess the quality of official statistics. Quality policy is publicly available through guidelines, framework, reports, etc. and staff members receive appropriate training for their application.

[22] Subject to the policy of advanced change notifications

293. INEC and the BCCR never formalised quality management policies as regards the collection, production and dissemination of official statistics, although they implemented various validation processes and controls at different stage of the statistical production. Article 33 (i) of the Law No. 9694 enjoins INEC to establish a policy and quality framework for the production and dissemination of official statistics produced in the NSS.

294. The Code of Good Statistical Practices promotes quality in the production of official statistics within the NSS, but there is no framework to regulate quality at every stage of the process of producing and disseminating official statistics. At the time of writing, INEC is considering the development of tools to assess and monitor, and subsequently ensure quality of its statistical outputs and those produced by other institutions of the NSS.

295. There are no documented quality frameworks. Procedures performed to ensure the quality apply at each stage of statistical operations, such as monitoring controls for field groups, reviewing reports of inconsistencies in data processing and their cleaning, as well as contrasting aggregated data. Each operation implements its processes and strategies to improve the quality of its production, for example, by calculating sampling errors and strategies to reduce and prevent non-response. INEC's employees received appropriate training in each of the statistical operations for this purpose.

296. There are no documented quality frameworks at the BCCR. However, the staff of the Economic Division is competent and receives regular internal and external training as well as advice from international experts on relevant statistical issues.

297. The reviewers welcome the inclusion of references to the management of quality in the amended Law No. 9694.

Good practice 8.2. An efficient, and possibly independent, quality management system exists. It includes an appropriate organisational structure; quality indicators and other tools and processes for the planning, implementation, and monitoring of the quality of source data; and the collection, processing, and dissemination of official statistics.

298. There is no doubt that quality is fundamental in the work of INEC and BCCR, and that a culture of quality is established in the statistical production. However, there is no quality management system in place for the production and dissemination of official statistics in Costa Rica. Processes in place to monitor quality throughout the process of data collection, data processing and data dissemination statistical operation include: (i) prior to the data collection process, the field staff is trained on thematic knowledge related to the research, and on the appropriate application of questionnaires to reduce biases; (ii) during the fieldwork phase, there are different levels of supervision and quality control of data, together with an almost immediate review of the information collected; and (iii) during the processing stage, errors or inconsistencies are identified and corrected and plans for ensuring consistency and automated debugging are established; coverage, sampling errors, and results are analysed and validated and available results are compared with historical data and other sources; several rounds of revisions are performed before the dissemination of statistical products by INEC Department of Information Services and Statistical Dissemination. In addition to these processes, INEC uses a control register at each stage of the Continuous Employment Survey, which allows a continuous data flow in the various stages of the survey.

299. In the case of Vital Statistics, individual information such as name, age and sex are verified through consultation in the institutional page of the Supreme Electoral Tribunal and Civil Register that collects this information. In addition, the INEC Vital Statistics Unit staff analyses and monitors the quality of information processing through plans on data consistency and coherence

between variables. The technical team is responsible for reviewing and developing the statistical analysis of data.

300. During the review process, INEC started to develop an internal quality management system based on a production process adapted from the Generic Statistical Business Production Model (GSBPM) and quality indicators developed in Mercosur.

301. The BCCR also puts forth quality monitoring processes for the collection, processing and dissemination of statistics.

Good practice 8.3. The national quality management systems are based on recognised models for quality frameworks, such as the IMF Data Quality Assessment Framework (DQAF), the European Foundation for Quality Management, European Code of Practice, the European Statistical System Quality Assurance Framework, Total Quality Management and ISO EN 9001, etc.

302. The BCCR participates in the IMF Special Data Dissemination Standard (SDDS), and data are evaluated according to the guidelines set out in the IMF Data Quality Assessment Framework of IMF.[23]

303. In 2014, INEC released the Code of Good Statistical Practices of Costa Rica, based on the European Statistics Code of Practice adopted by the European Statistical System Committee on 28 September 2011. The code also shares principles and indicators with the Code of Good Practices in Statistics for Latin America and the Caribbean[24] as approved at the sixth meeting of the SCA-ECLAC held in Dominican Republic in November 2011.

304. The Code of Good Statistical Practices of Costa Rica was formally approved by the Executive Council of the INEC on 31st January 2012. Executive Decree N°38698, issued by INEC on December 9, 2014, requests the entities of the NSS to adhere to this code and to implement its principles.

305. The code[25] is divided in three sections: (i) Institutional Environment and Co-ordination; (ii) Statistical process; and (iii) Statistical Output, and includes seventeen principles. Its structure and the definitions of the principles are very similar to those of the Code of Good Practices in Statistics for Latin America and the Caribbean, except for some good practices listed below:

- 1.7 When appropriate, the highest authorities of the national statistical institute and of each entity belonging to the national statistical system issue public statements on statistical matters, including criticisms, and address misuses of official statistics.
- There must be protocols establishing guidelines on the security and integrity of statistical databases.
- 5.3 New requests for information must be assessed and justified with reference to their costs using control mechanisms.
- 6.3 Systematic efforts must be made to promote and further a culture of continuous improvement in statistical production.

[23] http://www.imf.org/external/pubs/ft/sdds/guide/2013/sddsguide13.pdf

[24] http://www.cepal.org/publicaciones/xml/3/44893/lcl3384i.pdf

[25] See appendix A for a presentation of the Code of Good Practices for Statistics in Costa Rica.

- 7.1 Official statistics must be prepared using methodologies and technical processes based on impartiality and transparency.
- 7.3 The choice of information sources, methods, processes, concepts and data dissemination paths is a professional responsibility and is based on national and international principles and best practices.
- 7.6 Statistical reports must be delivered in an objective and professional manner.
- 9.2 The survey methodology and the use of administrative registers must be assessed periodically and, where necessary, adjusted to guarantee a high quality product.
- 10.6 The concepts and definitions used when administrative registers are used for statistical purposes must comply with the parameters required in a quality statistical process.
- 10.7 Editing and validation processes must be conducted in accordance with the rules of consistency and imputation.
- 12.4 Information and communications technologies must be used in order to optimize processes for the generation and dissemination of official statistics.
- 13.2 The entity must follow procedures for advising, training and reporting to users on the statistical outputs and for consulting them periodically on the practical use of statistical data.
- 14.3 The data must be collected in accordance with the methodology and designs published to guarantee reliability.
- 15.1 In order to be relevant, the statistics must be produced on a timely basis, that is, within a reasonable period after the completion of the reference period.
- 15.4 Any significant error identified in the official statistics disseminated must be corrected and the correct figures published promptly.
- 16.3 The use of statistical frameworks, classifications, procedures, indicators, concepts and good practices must be promoted in the production of official statistics in order to enhance their comparability over time and with other data sets.

306. The current version of the Costa Rican Code of Good Practices for Statistics is the first one and INEC and the BCCR consider further improvements in the code in the near future. At the time of its design, dimensions, principles and criteria were selected in accordance with the following criteria:

- The principle applies to the NSS entities
- The level at which it is possible to verify that the criterion is completed
- The feasibility to assess the criterion in a short-medium term period
- Identification of those criteria aimed only at INEC
- Criteria mutually exclusive

Good practice 8.4. There are regular and thorough reviews of key statistical outputs involving external experts where appropriate.

307. There is no systematic review of key statistical outputs but circumstantial thorough reviews are mainly conducted by specific users or international organisations, for instance when new data are released. In addition, the INEC Dissemination Policy allows to share information with external experts if validating undisclosed statistics is deemed important. For example, the Central American Centre conducted an assessment of statistics on demography sourced from the 2011 national population census and other sources. The BCCR does not have a periodic review of its statistical outputs. However there has been a comprehensive review conducted by the IMF in 2010 (IMF 2010 ROSC report).

Good practice 8.5. Quality assessment and certification processes guarantee the official nature of statistics produced in various parts of the NSS.

308. The Co-ordination Area at INEC released the national Code of Good Practices with the aim to harmonise the quality of official statistics produced in the NSS. However, none of the producers of official statistics within the NSS has developed a quality management framework for the production and dissemination of official statistics at this time.

Good practice 8.6. The organisational structure of the entities belonging to the NSS and governance arrangements are appropriate and regularly reviewed to assess and justify new statistical demands and related costs.

309. While there is no systematic review of the organizational structure of the institutions in the NSS INEC and BCCR have made adjustments to their own structure with the aim to improve efficiency, for example:

1. Years 1998-1999. The creation of the INEC;
2. Early years of the 2000s: Restructuring of the Economic Division of the BCCR to update the system of macroeconomic statistics;
3. INEC is currently finalizing an internal reorganization with the aim to improve the efficiency and effectiveness of its management, production and dissemination of their statistics. A plan was approved by the Ministry of Planning and is under the process to be approved by the Technical Secretary of the Budget authority in 2017.

Good practice 8.7. Information and communication technologies are regularly monitored and assessed for use in data collection, data processing and data dissemination?

310. Since 2010, the automation of data capture in the polls has increased concerns about reviewing computer technologies and the search for greater efficiency. Since then, computer systems have been continuously improved. All statistical operations carried out by the INEC surveys have introduced digital capture and surveys have improved data transmission systems and quality control. Similarly, censuses have been conducted with significant improvements as regards data capturing and processing. Despite the efforts made by the INEC, have been delayed some improvements such as automation of data capture vital statistics, which has not been possible because it depends on the decision of other institutions which are in charge of collecting statistical information. INEC considers the continuous improvement of IT systems through the implementation of the Strategic Information Technology Plan developed in 2015.

Good practice 8.8. Source data, intermediate results and statistical outputs are regularly assessed and validated.

311. Data sources are verified through a case-by-case selection to assess the quality and detect possible errors or omissions in the registration of information, and the necessary adjustments are made to the procedures for data collection. Validation processes are made in accordance with

guidelines, in order to identify possible inconsistencies and make necessary adjustments. Final results are compared with historical data to detect unexpected variations. Results are also compared data from other sources and other statistical operations performed by INEC (e.g. employment data, income, household characteristics and population, among others), and those produced by other producers of official statistics (e.g. National Accounts, Social Security Fund for employment). Particular situations that may have affected the results in a specific region or territory (public policy, market behaviour, climatic or social phenomena) during the statistical operations are also investigated and survey's supervisors report on them. Finally, if the situation so requires, experts are consulted.

Good practice 8.9. National Statistical Authorities put in place processes to ensure that sampling and non-sampling errors are measured, systematically documented, and that information is made available to users.

312. In surveys produced by INEC, the calculation of sampling errors is done by the Sampling Unit, and the measurement is carried out only for those data released in the final results document. In this institution there is no process, nor are non-sampling errors calculated. The following is done: a) once those in charge of the statistical process have analysed the information and data to include in the results document have been selected, this information is delivered to the Sampling Unit in order to have sampling errors measured. b) Later, these are returned to the statistic operation to be included in a section of that document.

313. Sampling and non-sampling error are systematically measured and analysed by the BCCR, however, this information is not available for external users.

314. There are no corporate policies or processes in this area at this time for the rest of the NSS. Sample and non-sample errors are treated by each particular survey team within the NSS and for each specific survey.

Good practice 8.10. Studies and analysis of revisions are regularly conducted according to transparent procedures and are the results made available to users.

315. There is no practice of publishing analyses and assessments that are regularly performed by INEC, except when comprehensive assessments are made available as in the case of the census or diagnoses that are made to justify methodological changes (e.g. evaluation of coverage Population Census and assessment of coverage of vital statistics).

Good practice 8.11. Timeliness meets international statistical release standards.

316. Timeliness varies according to the statistical domains (see specific chapters). At INEC, the most recent methodological revisions provided an opportunity to improve timeliness and to meet international standards, even if there is no systematic policy in place to improve timeliness. The BCCR meets the requirements of IMF SDDS as regards timeliness.

Good practice 8.12. The periodicity of statistics takes into account user requirements as much as possible.

317. Some users are consulted by means of focus groups or workshops to determine the utility of existing statistics that are used in methodological revision processes or in the execution of major statistical operations, such as censuses or new surveys. Both users from Government institutions and the general public that is involved in this field of work are invited to contribute. The purpose of such activities is to reach a consensus on specific topics; for example, the operationalization of concepts. In addition, an identification of new statistical demands is conducted during the development phase of the National Statistical Plan, and inter-institutional user committees were

created to solve specific problems encountered with data (Example: Foreign Trade Statistics Committee).

Good practice 8.13. A standard day time for the release of statistics is made public.

318. There is no standard time in the day for the release of statistics, both at INEC and BCCR. INEC releases monthly and quarterly Press Bulletins (only in Spanish). An advance release calendar with the dates of press releases from January to December is available on the Internet website of INEC. On an exceptional basis, the Head of the Board of Directors or the Manager of INEC can hold a press conference on a statistical domain, together with the professionals in charge of the statistical subject, and with people responsible for the relations with media.

319. BCCR releases statistics at a standard day in accordance with an annual advance release calendar.

Good practice 8.14. Preliminary results of acceptable aggregate accuracy are released when considered useful.

320. The dissemination of preliminary results is not a regular practice in all the statistical operations. In particular, significant progress should be made in national accounts in order to publish preliminary accounts (see specific chapter). Preliminary estimates of annualized rate on infant mortality at published each month, while annual data are corrected in March following the reference year. Costa Rica considers extending this practice to other statistical domains such building records with the aim of improving timeliness.

Good practice 8.15. Official statistics are consistent within datasets (i.e. elementary data are based on comparable concepts, definitions and classifications and can be meaningfully combined), across datasets (i.e. data are based on common concepts, units, definitions and classifications, or that any differences are explained and can be allowed for) and over time (i.e. data are based on common concepts, definitions, units, classifications, and methodology over time, or that any differences are explained and can be allowed for).

321. Each unit responsible for a statistical subject defines its own validation procedures. In general, the consistency within datasets and over time are validated at the different stage of data collection and data processing. In 2008, INEC redesigned the household surveys and introduced a process of harmonisation of the conceptual framework, definitions, sample design and classifications, with the aim to comply with the relevant international recommendations such as ILO employment, Canberra Group on income and the latest 2008 SNA. However, while there are procedures in place for some particular statistical surveys, there are no formal guidelines at the level of INEC to ensure that statistics are systematically consistent within datasets and across datasets.

322. The BCCR follows IMF recommendations, concepts and methodologies as regards criteria such as consistency of statistics.

Good practice 8.16. Statistics from the different sources and of different periodicity are compared and reconciled.

323. Statistics from different sources and of different periodicity are not systematically compared and reconciled, even if there are some exceptions, such as for population estimates which are obtained from different household surveys conducted by INEC, and which are adjusted to match population projections. While employment estimates are collected from differences sources (Social Security Registry, the National Household Survey and the Continuing Survey of Employment), they are not systematically compared and reconciled.

Good practice 8.17. Statistics are compiled according to common standards with respect to scope, definitions, classifications, and units in the different surveys and sources.

324. Agreements, such as the Integral Implementation of Macroeconomic Statistics System between INEC and the BCCR, foster the use of common standard. In addition, INEC has been working on the definition of instruments and procedures as part of its role of coordinator of the NSS. Examples include the guidelines on the use of common classifications, the executive decree on the use of classifications of occupations and economic activities, the manual for the presentation of statistical outputs, or the guidelines on the use of geographical disaggregation. Furthermore, twenty-four working groups and commissions have been set up to improve and harmonise various official statistics (in particular statistics on disability, environment, public safety, time management, agriculture and livestock, health, demography, science and technology, foreign trade, space data, among others). National statistical plans and the National Advisory Council on Statistics (Conace) are also involved in this process of promoting the use of common standards in the production of official statistics. The new standards for the NSS are promoted by the Co-ordination Area of NSS at INEC. These standards are approved by the Board of INEC and, if deemed necessary, promulgated by executive decree.

Good practice 8.18. Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their needs, and consider their emerging needs and priorities.

325. At the time of writing, there is no formal process to consult users through specific regular surveys on the relevance and utility of statistics. Nevertheless, INEC interacts with users through its website or through its information centre. A formal end-user request made to Management is made in the case of specific requests to fill an information gap through additional questions in existing statistical operations, to incorporate special research modules, or to perform new statistical operations required by users; this request is presented to the Board of Directors of INEC. In such cases, users must provide additional funding or request it from government authorities or international organizations. If approved by the Board, INEC proceed to its programming under an institutional work plan and an interagency agreement for its implementation, either by INEC, or by another entity of the NSS, or through a contract with a third party under the technical supervision of INEC.

326. User's requests are also addressed through specific committees, composed either by government authorities or by INEC. In 2010, the IMF noted that "the needs of major official users (ministries, departments) play a key role in determining the data compiled and disseminated. Fiscal statistics are a part of the budget process and are used by policy makers" (IMF, 2010, p. 67). INEC also organises discussion workshops on specific statistical areas.

327. The National Advisory Council for Statistics, established by Law No. 9694, provides a fundamental formal mechanism for consulting with users of statistics.

328. The BCCR features various channels of interaction with users of statistics, such as the "Contact Us" section on its website, through email and phone service.

Good practice 8.19. User satisfaction surveys are undertaken on a regular basis. The results are publicly released and considered as an input for decisions about plans and priorities and they are reflected in the statistical work programmes.

329. While IMF recommended in its 2010 ROSC report to "establish a formal and regular user consultation process" (IMF, 2010, p. 18 [staff recommendations]), INEC and the BCCR do not undertake regular formal surveys or customer-satisfaction inquiries. However, the Law No. 9694 introduces user needs, in particular through the National Advisory Council for Statistics, which

gathers producers and users of official statistics. In the past, several initiatives provided information from users on specific areas of the production and dissemination of official statistics:

- In 2012, the BCCR conducted a user survey to 568 external subscribers to the Economic Indicators Website (216 responses were received) in the context of the redesign of the website. The survey gathered information about users' profile (frequency of use, provenance, economic activity and most used indicators) and evaluated the quality of the service (availability of required indicators, ease of finding information, clarity of information, overall assessment and improvement suggestions). Survey results were used internally and not publicly disseminated.
- The BCCR conducts annual internal satisfaction survey in order to identify opportunities for improvement in its information system. The survey covers the services of statistical production and dissemination provided by the departments of Macroeconomic Statistics (DEM) and Economic Information Management (DGIE). Policy makers, policy advisors, researchers and operative staff from several units within the BCCR are surveyed on seven quality dimensions: attitude of the staff, technical or professional skills, complaint management, timeliness of response, empathy, communication and resources availability. Survey results are disseminated internally but are not made publicly available.
- As mentioned above, INEC interacts with users through workshops or meetings organised on an irregular basis, in order to respond to their inquiries, demands and needs and suggestions for improvement. Users are also consulted through briefings conducted prior to designing new research or new surveys, or when major methodological changes are introduced. User consultation is also conducted in the consultation room in INEC premises, or through ballots on the Internet website, but feedback received remains limited. Results of such feedback on the services provide dare considered immediately, whenever possible. INEC also regularly received suggestions and comments on possible improvements of tools for collecting information and methodology. This information is analysed
- Both INEC and BCCR receives comments and suggestions from users. These comments are analysed by the production areas and integrated into the production process if deemed necessary.

330. These consultations remain incomplete and irregular. Procedures, such as user's consultation surveys, to ensure that users are consulted on a regular basis are recommended. By introducing user needs in the legislation on statistics, in particular through the National Advisory Council for Statistics, which gathers producers and users of official statistics, the Law No. 9694 contributes to improving the situation in that regard.

Overall assessment Recommendation 8:

331. Quality is an important dimension in the statistical work of INEC and the BCCR and the implementation of the Code of Good Statistical Practice clearly indicates that a culture of statistical quality is strengthening in Costa Rica since several years. However, there is scope for improvements in order to enhance further compliance with the Recommendation of the Council on Good Statistical Practice. In 2017, the reviewers encouraged INEC's plans to develop and implement a quality management framework for statistics, including monitoring procedures, to implement an overall revision policy, and systematic comparisons and reconciliation of data from different sources, and to reinforce the user consultations through user satisfaction surveys, regular quality reviews of key statistical outputs and processes involving external experts, and appropriate

training program for these quality reviews. Since then, INEC developed an internal quality management framework, based on a structure adapted from GSBPM, along with quality indicators developed in cooperation with statistical agencies in the Mercosur, and intends to extend its implementation over the whole NSS. In the meantime, INEC also launched the process to revise the National Code of Practice elaborated in 2012 and implemented two years later in the NSS, and to develop self-assessment procedures against the principles of the revised code. Appropriate guidelines to this end are also being produced by INEC. All these activities are conducted in accordance with the Law No. 9694 that provides for engaging users at various stage of the statistical production, and for managing and evaluating the quality of official statistics.

2.2.9. Recommendation 9. Ensure user-friendly data access and dissemination, so that statistics are presented in a clear and understandable form, released in a suitable and convenient manner, including in machine -readable form ('open data'), can be found easily, and are available and accessible on an impartial basis with supporting metadata and guidance. This also entails a commitment to respond to major misinterpretations of data by users.

Good practice 9.1. Statistical information is available through different dissemination tools, including media channels, Internet, online database and paper publications and easily downloadable in different formats.

332. INEC statistical products are made available to users in various formats: online tables, press releases, printed publications, etc.

333. At the time of writing, there is no dissemination policy or guidelines implemented by all the statistical institutions within the NSS apart from the Guide for the Presentation of Statistical Tables and Charts, and the Manual for Presenting Statistical Tables and Charts developed by the Statistics Department of the Ministry of National Planning and Economic Policy in 1982.

334. INEC has developed an internal Dissemination Policy for Statistics and Delivery of Micro-data, approved by the Board of Directors in December 2014, and considers gradually extending this policy to the NSS as a whole. In line with this policy and the strategic institutional objectives, the Department of Information and Dissemination Services at INEC initiated in the first quarter of 2016 the implementation of the General Communication Strategy Statistical Production of the INEC for the period 2016-2020. The overall objective of this strategy is to promote access and use of statistical outputs produced by INEC and to create a statistical culture including different target audiences, by:

- Improving mechanisms for promoting statistical production;
- Strengthening the dissemination of statistical production through various channels and actions targeting specific audiences;
- Facilitating access of statistical production to different users;
- Promoting an appropriate use of statistical information.

335. This overall strategy is complemented by specific plans for different statistical operations, including the development of key messages, product development, and the media as public goals.

336. In practice, key statistical results and tables, along with a description, or a newsletter whenever appropriate, and a press release, are released at the date specified in the advance release calendar available on the INEC internet website. Methodological documentation, developed in the context of the Accelerated Data Program (PAD), is published on the internet website of INEC within a calendar month from the official publication of the main results. The publication of

statistical results is complemented by other communications, such as computer graphics, delivery subscriber list, postings on social networks and direct media contacts, and a press conference is scheduled for some statistical operations.

337. INEC has launched its new website on 1 July 2016, including a twelve-month a-head mobile advance release calendar, as recommended by the OECD. Dates are considered preliminary until ratification and approval by the Board of Directors in December each year.

338. INEC also develops an institutional digital repository, which allows unrestricted access to all present and past documents with full text download.

339. Its website is the main channel used by the BCCR to disseminate economic statistics, including national accounts and balance of payments statistics. Data are also transmitted to the IMF for publication in the SSDS framework. The BCCR has a documented process called Process of Production and Dissemination of Economic Information, which includes:

- Analysis of Macro-economic Statistics. Area of Statistics of Goods and Commerce.
- Analysis of Macro-economic Statistics. Area of Statistics of the External Sector.
- Analysis of Macro-economic Statistics. Area of Statistics of Institutional Sectors.
- Analysis of Macro-economic Statistics. Area of Statistics of Services and Construction.
- Analysis of Macro-economic Inter-relations. Area of Monetary and Financial Statistics.
- Approval of Macro-economic Statistics. Area of Statistics of Goods and Trade.
- Approval of Macro-economic Statistics. Area of Statistics of the External Sector.
- Approval of Macro-economic Statistics. Area of Statistics of Institutional Sectors.
- Approval of Macro-economic Statistics. Area of Statistics of Services and Construction.
- Code Assignment and Sectorisation of Basic Statistical Data. Area of Monetary and Financial Statistics.
- Calculation of index numbers.
- Consolidation of Statistical Data. Area of Monetary and Financial Statistics.
- Definition of Sampling Framework.
- Sample design.
- Preparation of Comments, Graphics, Reports and Forecasts. Area of Monetary and Financial Statistics
- Collection of Basic Statistics. Area of Statistics of Goods and Commerce.
- Collection of Basic Statistics. Area of Statistics of the External Sector.
- Collection of Basic Statistics. Area of Statistics of Institutional Sectors.
- Collection of Basic Statistics. Area of Statistics of Services and Construction.
- Collection of Basic Statistics and database loading. Area of Monetary and Financial Statistics.

- Validation of Basic Statistics. Area of Monetary and Financial Statistics.

Good practice 9.2. A dissemination policy ensures the free dissemination of official statistics.

340. INEC's internal dissemination policy establishes the condition for the free dissemination of official statistics produced by INEC as it seeks to allow users to access freely data, metadata and statistical databases through a conventional format (available in Excel format).

341. Since 2008, the NSS together with PARIS 21, the World Bank, and other international partners, initiated activities for promoting methodological documentation on NSS's statistical operations. The tool used is the Accelerated Data Program (ADP)[26]. This is a standard tool for documenting databases under international quality and comparability norms, which makes statistical and methodological information available for users, for its correct use and interpretation. ADP also promotes the technical transparency.

342. The ADP appears in 2006, as a recommendation of the Marrakech Action Plan for Statistics (MAPS 2004), with the purpose of making urgent and necessary improvements in the fulfilment of Millennium Development Goals, especially in terms of measurement and tracking of timely, trustworthy, comparable, relevant, and accessible information. The main objective of ADP is supporting developing countries in the production of relevant statistic data for the design of policies, monitoring, and evaluation, with a more appropriate use of already existing data and aligning research programs. It also promotes statistical production that responds to the users' needs and that, at the same time, is important for the decision making process related to priority data.

343. This effort is framed within the activities defined in the National Statistical Development Strategy, in particular in its Axis No.3 "Statistic information is easily accessible and widely used". This aims to advance in the adoption of tools that would support the documentation and homologation of public statistics in order to comply with commitments defined in Article 3 of Law No. 7839 on the implementation of a "… standardized system of concepts, definitions, statistical units, classifications, nomenclatures and codes that allow the comparison, integration, and analysis of data and results…"

344. All documented statistical operations are available for the user at the National Data Archive (ANDA for its Spanish Acronym)[27], which facilitates access to methodological documentation on statistical operations and resulting databases. Statistical operations currently available in ANDA managed by INEC; nevertheless, around 16 institutions producing statistics have received training in order to initiate the documentation process by means of an ADP tool. However, there is no formal agreement on committing statistical operation to document data under this standard.

345. In the case of economic data, the BCCR signed an agreement with the IMF for the production and dissemination of macro-economic data under the Special Data Dissemination Standard (SDDS) and commits to follow good practices in four areas: coverage, periodicity, and data timeliness; public access to data; data integrity; and data quality.

[26]More information at: http://www.surveynetwork.org/

[27]For more information at: http://www.surveynetwork.org/home/software/nada

Good practice 9.3. In order to ensure equal access to national statistics for international users, English-language statistical information (data and metadata) is available on websites of National Statistical Authorities.

346. Metadata is available in English on the BCCR's website according to the IMF's SDDS format.[28] However, there is limited metadata in English on INEC's website, although progress have been achieved in that regards since the beginning of this review, in particular as regards data collection instruments (censuses, surveys and methodologies). Both organisations have committed to release all their main methodological documents translated in English in the near future.

Good practice 9.4. A corporate strategy and appropriate guidelines are in place for the preparation of statistical publications (paper and electronic).

347. In accordance with its internal dissemination policy, INEC increasingly disseminates statistical information on its internet website, which was renewed in 2016, and gradually produces guidelines for the various types of dissemination format.

348. Since 2002, INEC implemented editorial and graphic style with the support of appropriate guidelines, including the use of certain graphic design, colours (primary, secondary, or other approved colour palette), INEC brand, typography, etc. facilitating the preparation of easy-to-read materials. INEC's graphic image participates to the institutional recognition by the citizens, and is used in all documentation, clothing (when mandatory use), and external signs (building, vehicle fleet).

Good practice 9.5. A corporate database and glossaries promote the use of standard statistical concepts and definitions.

349. There is no corporate database centralising data and concepts and definitions of statistics produced within the NSS. Each producer of statistics develops its own methodological documents whose include a description of the main concepts used in this specific statistical operation. Nevertheless, INEC systematically includes methodological information with data, under a specific section for concepts. These concepts are also included in the interviewer's manual, both publicly available. In addition, INEC bases its methodological researches on an internal inventory of international resolutions and recommendations.

350. Likewise, the BCCR does not have a centralized database in terms of production of statistics; nevertheless, methodological documentation is available.

Good practice 9.6. Users are kept informed about the methodology of statistical processes including the use of administrative data.

351. INEC internet website provides methodological document or at least a methodological summary in Spanish for each statistical operation, including those based on administrative records. Methodologies are also documented and published by the ANDA. Although there is no systematic practice of publishing methodologies in other institutions of the NSS, a basic description of the methodologies and processes is often made available. To document statistical operations by the PAD, INEC organised training courses in various institutions, and ANDA gradually includes institutions from the NSS in order to develop a comprehensive library of methodological documentation for all the statistical operations within the NSS.

352. A detailed document covering the methodologies for compiling the statistics disseminated is available on the BCCR's website. The main page of the statistics website of the BCCR refers

[28] http://dsbb.imf.org/Pages/SDDS/Home.aspx

to the IMF Dissemination Standards Bulletin Board (DSBB), which provides comprehensive information on the sources and methods. The BCCR reviews and updates these metadata annually in order to meet the criteria established by the IMF. In addition, the Internet website allows the subscription to e-mails in order to alert users of recent updates and/or modifications in available statistical information. Any major changes in the methodology is announced via technical memoranda on the BCCR's website. Comments on the most recent figures are also included in the monthly, quarterly and annual publications as well as in the Macroeconomic Program of the BCCR.

Good practice 9.7. Metadata are documented according to standardised metadata systems.

353. The Costa Rican Statistical System does not have a single standard for documenting metadata system, however, INEC is making efforts to ensure that all statistical operations are documented in the PAD and available on the National Data Archive (ANDA). Currently eleven of the statistical operations conducted by INEC are already available in the ANDA.[29]

Good practice 9.8. Corporate strategy and appropriate guidelines are in place for the preparation and dissemination of metadata on concepts, scope, classifications, basis of recording, data sources, statistical techniques, differences from internationally accepted standards, annotation of good practices, geographical coverage, etc.

354. According to the statistical legislation in Costa Rica, INEC's functions include the development of technical guidelines, standards, and regulations for the statistical activities of the NSS. INEC has created a specific unit dedicated to the co-ordination of the NSS in order to promote this development.

Good practice 9.9. Internal guidelines are available in statistical agencies on responding to erroneous comments. These guidelines are well known by staff.

355. Whenever necessary, INEC and the BCCR can respond to erroneous interpretations of the official statistics through press releases or other means but there are no specific guidelines available.

Good practice 9.10. Access to micro-data is allowed for research purposes and is subject to specific rules or protocols.

356. As explained above, the INEC Dissemination Policy for Statistics and Delivery of Micro-data clearly establishes the procedures by which external users can access micro-data:

- Public use files, contain anonymised micro-data released by INEC through its Internet webpage or through digital media (anonymisation ensures that statistical data may not be published or disclosed with an express reference to the persons and entities directly or indirectly involved);
- licensed files with anonymised micro-data (but without treatment to prevent possible indirect identification), for an exclusive use by academic researchers and authorised end-users of institutions upon signature of a formal confidentiality agreement by the legal representative of the institution, with specification of user names. Data should only be used for the purposes specified in the agreement;
- non-accessible files when data are particularly sensitive or detailed, access is only possible through processing done by INEC and outputs are checked by INEC; and,

[29] http://www.inec.go.cr/anda4/index.php/home

- micro-data access for online processing (remote access), i.e. online access to anonymised micro-databases files.

Good practice 9.11. Where a pricing policy exists for specific services or custom-designed products, conditions of sale are clearly communicated.

357. The internal Dissemination Policy for Statistics and Delivery of Micro-data is publicly available along with its price regulation of goods and services adopted by the Board of Directors in June 2014.

Good practice 9.12. Educational material is developed with the aim to enhance the use of official statistics and to avoid their misuse and misinterpretation.

358. INEC developed a range of products to enhance visibility and use of official statistics:

- Documentary videos on official statistics and their use,[30] developed in cooperation with the Distance State University (*Universidad Estatal a Distancia*, abbreviated UNED) in order to support training courses organised by INEC and academics, in particular on vital statistics, consumer price indices, and the National Income and Expenditure Survey (ENIGH). These videos have received the National Award as Best Journalist Association audio-visual production.
- Training material on the development and use of a virtual classroom for INEC staff and users, developed in cooperation with the Inter-American Institute of Agriculture (IICA).
- Animated tutorials and presentations for trainings on Redatam or other topics on statistical culture.

Good practice 9.13. Official statistics are released in machine-readable form ('open data') that encourage use and analyses.

359. Official statistics released by INEC and the BCCR are presented in various formats including downloadable Excel tables. INEC also disseminates downloadable databases available free of charge, along with relevant documentation, as well as a system in Redatam allowing users to generate their own downloadable statistical EXCEL tables. Other institutions of the NSS provide information to users in different formats according to their needs.

Overall assessment Recommendation 9:

360. Over the review process, INEC has implemented a corporate dissemination policy that provides efficient procedures and guidelines for disseminating data and metadata (in Spanish and in English) for free, accessing micro-data, and regulating pre-release access arrangements. This dissemination policy could provide an appropriate basis for the development of an overarching dissemination policy at the level of the NSS as a whole, by incorporating further issues related to handling of provisional and final data, and a metadata strategy. INEC also designed a web platform for official statistics produced in the NSS, and launched a corporate database promoting the use of standard statistical concepts and international classifications. Finally, the dissemination by INEC of metadata translated in English in 2017 improve access to methodological information by international users and efforts in this respect should be continued.

[30] http://audiovisuales.uned.ac.cr/mediateca/videos/load/recent

2.2.10. Recommendation 10. Establish responsibilities for co-ordination of statistical activities within the NSS.

To this end, Adherents should ensure that:

i. the co-ordination of statistical activities among statistical producers is done through the use of standard concepts and classifications and avoids the duplication of effort;

ii. responsibilities for such co-ordination function are clearly laid out and anchored in statistical legislation.

361. The statistical authority should have the legal right and the effective capacity to co-ordinate the statistical activities of producers of official statistics. Data sharing should be actively undertaken to minimise respondent burden, minimise duplication of effort, ensure the use of standard concepts, and ensure consistency of official statistics. An efficient co-ordination is ensured by institutional arrangements, according to the legal framework, and by the implementation of effective tools. The Costa Rican NSS being broadly decentralised, its coordination is essential.

Good practice 10.1. The role and responsibilities of all producers of statistics are clearly determined by law. A co-ordinator of the NSS, such as the NSO, is also designated by law.

362. In Costa Rica, the coordinating role of INEC over the NSS is clearly established by the Law No. 7839, amended into Law No. 9694 in May 2019. Chapter 2 of Law No. 7839 gives explicit responsibility to the INEC for the co-ordination of statistical activities of statistical agencies in the NSS. Article 1 creates the NSS, which "shall have INEC as its technical governing body", while Article 12 states that INEC "is the technical governing body of national statistics and coordinator of the NSS" and Article 13 includes the following functions in relation to the coordination:

- Establishing the norms, models, formats and terminology that regulate the production of statistics in the NSS.
- Evaluating the quality of statistics within the NSS.
- Providing technical assistance for statistical services to the State or other users, through conventions of mutual cooperation.
- Providing technical and methodological advice for the establishment of statistics-related international conventions.

363. The co-ordination role of the INEC within the NSS is significantly reinforced by the implementation of Law No. 9694. In particular, the quality and efficiency of the coordination of statistical activities within the NSS legally assigned to INEC is improved, notably through the creation of the Inter-institutional Statistical Commission composed of the heads of administrative units of the NSS and chaired by INEC manager, and the establishment of statistical units in the administrative units.

Good practice 10.2. The designated co-ordinator has responsibility to co-ordinate the statistical activities of official producers in the NSS and to represent the NSS as a whole. This concerns in particular the use of appropriate statistical concepts and procedures, the implementation of international standards and efforts to minimise duplications in data collection, production and dissemination of official statistics.

364. According to the Costa Rican legislation, INEC has full legal responsibility for the co-ordination of statistical activities in the NSS. In practice, substantial efforts have been made by INEC to strengthen its role of coordinator of the statistical activities within the NSS since the adoption of the Law No. 7839 in 1998 and the creation of INEC in 1999. A hierarchical level

Department under the direct supervision of INEC's Manager was established with the main responsibility of coordinating statistical activities within the NSS. This Department ceased operation in 2002 due to a lack of clarity concerning the means to achieve its task, and has since been reintroduced in 2006 with three staff members, before to be strengthened with up to twelve high-qualified officials in 2017. INEC envisages to set up a specific unit composed of twenty-two persons.

365. Since 2005, two main phases in strengthening the INEC role of co-ordinator of the NSS can be identified:

- Phase 1 (from 2005 to2009):
  - Development of the National Statistical Development Strategy (ENDE, in Spanish)
  - Development of INEC's website (with a section dedicated for the NSS)
  - Proposal for a review of the regulation of Law No. 7839 that regulates the co-ordination of the NSS (not yet approved)
  - Development of a training plan for the NSS as a whole
  - Development of a communication plan for INEC
  - Development of an inventory of all the statistical operations conducted within the NSS
  - Elaboration of a project to strengthen the role of INEC within the NSS
- Phase 2 (from 2010):
  - Development of the 2012-2016 National Statistical Plan (PEN), including the monitoring and evaluation of its implementation in the NSS as a whole
  - Creation of the National Consultative Council on Statistics in 2013 (according to the Articles 39 and 41 of Law No. 7839);
  - Development and dissemination of technical standards: in particular, two executive decrees were used for (i) ensuring the implementation of statistical classifications consistent with international standards; and (ii) for the adoption of the Code of Good Statistical Practices by all the members of the NSS.
  - Development of a new Manual to harmonize the presentation of statistical results, charts, and graphs (forthcoming).
  - Promotion of methodological documentation: With the support of the World Bank and Paris 21, INEC has adopted the accelerated data program (ADP) and the National Data Archive (ANDA, in Spanish) for database documentation and for the provision of anonymized micro-data. It has been applied to all INEC's statistical operations and staff within the NSS institutions has received appropriate training for the implementation of the ADP.
  - Assessment of statistical capacities through the IDB's Tool for Assessing Statistical Capacity (TASC), which provides a quantitative measure of the capacity of the NSO to conduct statistical activities.
  - Signature of a number of official agreements with other institutions of the NSS (see Annex 2.B.).

- Update of the inventory of statistical operations
- Process for anonymising the statistical databases
- Development of data dissemination policy
- Development projects related to the amendment of Law No. 7839: development of standards for administrative records, drawing up of a certification system for quality assessment of statistical operations, adoption of new classifications CPC Rev.2.1 (in collaboration with the DANE in Colombia), adoption and implementation of SDMX, design of a system of indicators of environmental statistics, co-ordination of the diagnostic process and calculation of new Sustainable Development Goals (SDG) indicators.

366. Nevertheless, rooms for improvement exist as regards the efficiency of the co-ordination of statistical activities within the NSS. For instance, INEC still faces considerable restrictions in accessing tax and other administrative records, Executive Decrees are required for an effective implementation of harmonised standards, and only 5.6% of INEC's resources were devoted to the co-ordination of the NSS in 2016. In this context, it would be necessary to reinforce the co-ordination among the various units involved in the NSS for strengthening further the statistical framework for official statistics.

Good practice 10.3. Procedures, mechanisms, tools, guidelines, or agreements are in place to ensure effective co-ordination within the NSS.

367. The most important tools developed by INEC to ensure the co-ordination of statistical activities within the NSS are as follows:

- National Statistics Plans developed by INEC in accordance with Article 12 and Article 3 of Law No. 7839 and in cooperation with other producers of official statistics in the NSS. INEC is also responsible for monitoring the implementation of the Plan in the NSS. Procedure for elaborating the Plan includes four phases:

4. bibliographical revision, and definition of categories;
5. establishment of criterion for the section of institutions involved in the process;
6. consultation of producers and users of statistics;
7. analysis and systematisation of information collected.

- Code of Good Practices for Statistics of Costa Rica: released in 2014, based on the European Statistical Code of Practice and the Code of Practice for official statistics from ECLAC. The Executive Decree N°38698, issued by INEC on December 9, 2014, instructs the entities of the NSS to adhere to the National Code of Good Statistical Practice and to implement its principles;
- Inter-institutional agreements, working groups, and commissions organised by INEC;
- Twenty-four working committees;
- Guidelines for the presentation of data;

- An Inventory of National Statistical Operations: available online[31] which is presented alongside with methodological information on each statistical operation and administrative information on the units responsible for the production of statistics;
- The National Consultative Council of Statistics created in 2013, supports INEC in the co-ordination of statistical activities within the NSS.

368. In addition, INEC is planning to incorporate other members of the NSS into the Internal Commission of Statistical Classification with the objective to implement new versions of international classifications within the NSS. Another objective would be to co-ordinate the dissemination of official statistics through a single data portal.

369. The tools used by INEC for the co-ordination of the NSS could be further enhanced, notably by:

- a quality management program in the NSS as a whole;
- procedures to ensure full adherence by all NSS members to the Code of Practice;
- procedures to ensure the implementation and regular use of international standards and guidelines within the NSS.

370. A significant improvement as regards the coordination of statistical activities within the NSS is provided by the implementation of Law No. 9694 with the creation of the Inter-Institutional Statistics Commission, composed of the heads of statistical units in the public authorities of the NSS created by Article 5, and chaired by the Manager of INEC. The Regulation to the Law (to be issued by end 2019) will precise the representativeness and the functioning of this commission, which is planned to organise its first meeting during the first semester of 2020.

371. The National Advisory Council on Statistics (see Recommendation 2), created by Article 26 of law No. 9694, also contributes to reinforcing the coordination of statistical activities within the NSS.

Good practice 10.4. Exchange of statistical information between statistical agencies is actively undertaken.

372. The exchange of statistical information is actively undertaken between INEC and BCCR for the compilation of macroeconomic statistics through the implementation of inter-institutional agreements (see section 1.1). In accordance with its dissemination policy, INEC also shares information, including microdata, with other institutions in the NSS on a range of statistical areas (labour, employment, unemployment, population, agriculture, housing, etc.).

373. The implementation of the Accelerated Data Program for documenting statistical operations and combining them in a National Data Archive for improving access to statistics allowed extended exchanges of information between statistical agencies in the NSS. However, INEC does not have access to important administrative records, such as information from the Tax Register or Social Security (see section 5.1). Agreements between INEC and these authorities would further improve the use of administrative records for the production of official statistics.

Overall assessment Recommendation 10:

374. The INEC is legally responsible for co-ordinating activities across the NSS. It relies on key instruments (statistical programme, including multi-year national plan for official statistics)

[31] http://www.inec.go.cr/SINOE/aspx/Consulta/Filtros.aspx

and forty-nine inter-institutional agreements, twenty-four working committees, and three main regulations (the National Code of Good Statistical Practice, the regulation on the implementation of the classification ISIC Rev.4, and the guidelines on the presentation of data), and the dissemination policy implemented internally by the INEC. Improvements are desirable and should aim towards an integrated NSS in which INEC statisticians work closely with other producers of official statistics, for example to implement the National Code of Good Statistical Practice, and decide on necessary improvements and means to monitor them. INEC's authority to implement standard statistical methods across the NSS should be increased, along with its resources to co-ordinate NSS statistical activities.

375. Indeed, the reviewers consider that the coordination is not sufficiently efficient and that additional efforts should be undertaken to further comply with the Recommendation in this respect. In particular, Costa Rica is strongly encouraged to develop further the concept of an integrated NSS in which statisticians from the INEC work closely with the other producers of official statistics on the implementation of the National Code of Good Statistical Practice, for example through the elaboration of an agenda of future developments, a plan for improvement, and appropriate procedures to assess the compliance to the Code by the other producers of official statistics. The INEC should also further strengthen its efforts as a coordinator and provider of technical assistance to other authorities that are considered as producers of official statistics in order to increase the use of standard statistical methods, to increase efficiency and quality, and to ensure compliance with the National Code of Good Statistical Practice. In that perspective, resources devoted to the co-ordination of statistical activities within the NSS need to be significantly increased.

376. In order to address these weaknesses, the Costa Rican statistical authorities, and in particular INEC, have recognised the strategic importance of adequate procedures to ensure an effective co-ordination within the NSS. The Law No. 9694 significantly reinforce INEC's coordination role within the NSS by creating an Inter-institutional Statistical Commission, establishing specific statistical units in each administrative unit of the NSS, and legally enshrining the ten-year national statistical development strategies and five-year national statistical plans.

2.2.11. Recommendation 11. Commit to international co-operation. To this end, Adherents should:

i. encourage statistical producers to achieve common goals in statistics jointly with the statistical producers in other countries and with international organisations, with a view to developing internationally comparable statistics, to designing international standards and to exchanging information on good practice.

ii. provide the necessary data for the OECD's reporting system and analytical work, in compliance with international statistical standards as recognised by the OECD and preferably using the Statistical Data and Metadata eXchange method/standard in particular for domains with internationally agreed Data Structure Definitions (DSDs).

377. International co-operation contributes in strengthening statistical infrastructures through exchanges of best statistical practices, methods, training and guidelines, technical assistance, etc. Furthermore, there is a clear interdependence between maintaining and strengthening quality and relevance of national statistics and the statistical processes at the international level. The international statistical co-operation looks towards the achievement of common goals and the development of internationally comparable statistics.

378. Co-operation activities in statistics are organised through bilateral or regional programs, or supported by international statistical organisations. Statistical technical co-operation can be

achieved by means of training sessions, forums where experiences and best practices are shared, technical co-operation and statistical assistance on a specific statistical subject, etc.

379. The following section provides an overview of international co-operation projects where Costa Rica has been engaged, examples of regional co-operation and bilateral co-operation programs including Costa Rica.

Good practice 11.1. National statisticians participate actively and regularly in international expert groups, conferences and workshops.

380. INEC, BCCR and the MdH participate with colleagues from other countries in working groups, committees, and other forums ensuring close cooperation in statistical matters, and affording increasing opportunities for sharing good practices and enhancing professionalism. An example is provided by the involvement of the producers of official statistics in Costa Rica in the joint OECD-WTO initiative on measurement of Trade in Value-Added.

381. The INEC is striving to benefit and contribute to the international bilateral and multilateral cooperation. While INEC does not have a section, or department, especially dedicated to international cooperation, the latter is ensured by the unit responsible for the co-ordination of the NSS. INEC plans to develop such specific entity for the international cooperation in the future institutional framework.

382. Two governmental institutions need to be consulted as regards the international cooperation by INEC, i.e. the International Cooperation Directorate of the Ministry of National Planning and Economic Policy, and the International Cooperation Directorate of the Ministry of Foreign Affairs. The procedures for the participation of INEC vary depending on the degree of commitment and the resources involved. For instance, if INEC is invited in participating to a workshop, internship, seminar, working group, INEC`s management is responsible for the final decision. On the other hand, if participating involves the institution's resources at a high level, which may affect the development of the activities that are already underway, or if it implies obtaining financial resources in which INEC has become responsible for its execution, the analysis and approval must be granted by INEC's Board of Directors.

383. In case that the country or the organization demands an official Government process, this must be done through the Ministry of Foreign Affairs.

384. In very few occasions, INEC was involved in specific statistical international cooperation programs for Costa Rica: as for example in 2008 with the Project for the Implementation of the National Statistics Strategy (ENDE) with the World Bank (TF090668-CR). The result of this program was a donation of US $ 284,000 with the main purpose to strengthen the work of the NSS.

385. Most of the international cooperation either provided or received by Costa Rica is by definition technical. Table 4 presents the amounts allocated to INEC in 2012, 2013 and 2014 for international cooperation.

Table 4. Grants for International Cooperation received by INEC

USD

Organisation	2012	2013	2014
UNFPA	50.000	45.400	37.000
UNDP	3.000	3.000	
UNICEF		12.000	
ILO	2.000		
OECD/World Bank	63.370	27.978	6.160
Subtotal	118.370	88.378	43.160
Total			249.908

Source: INEC.

386. Both INEC and the BCCR are involved in bi-lateral and international co-operation through co-operation agreements with international agencies, commissions and programs, working groups, and tasks force. In particular, INEC is involved in:

a. Regional projects in the field of statistics: for instance the project of funding for Regional Public Goods sponsored by the Inter-American Development Bank, or projects managed by the Central America in Integration System (SICA, its acronym in Spanish) for the Central American Statistics Commission (CENTROESTAD), such as the working group for the revision and improvement of the Statistical Compendium of CENTRESTAD, the development of the Regional Strategy for the Development of Statistics[32] co-ordinated by SICA, and the regional projects promoted by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) for groups of countries or other international bodies, according to procedures established by the sponsoring organizations.
b. Projects created and developed with the support of UN bodies, such as the Population Fund, UNICEF, FAO, UNDP, or ECLAC, in order to develop indicators and produce or improve the assessment and public outreach of statistics. These are short-duration projects, and generally include technical assistance, expertise, financial resources for training, and the development of workshops for organising interactions between producers and users.
c. The South-South cooperation through internships or technical support to train staff within statistical institutions. Another way can be to receive feedback from the countries with a higher development in the statistical area in which INEC is working to innovate and improve.
d. Active participation in the workshops, seminars, and courses set up and taught by the various international entities, as long as the invitation has the necessary financing. If it does not have it, and INEC considers it a priority, the money is awarded or a petition is presented to an international organization so the resources can be granted. This option has been successfully applied over the last 5 or 6 years thanks to the financial sponsorship from the BCCR, and the reason is that INEC is unable to assign money to trainings due to the Government's budget restrictions.

387. INEC is involved in the following ECLAC's working groups:

- Harmonization of Income Poverty Statistics and Public Transfers
- International classifications
- Household surveys (GTEH)
- Environmental statistics

[32] https://vimeo.com/53682990

- Gender statistics
- Childhood and Adolescence Statistics
- Public safety and Justice statistics
- Job market indicators
- Monitoring the Millennium Development Goals (MDG)
- Statistics on disability
- Administrative records

388. INEC is involved in the Expert Group on Statistical Data and Metadata Exchange (SDMX) and has signed with OECD a memorandum for the publication of well-being indicators.

389. The BCCR is actively involved in an expert group on TiVA, and regularly attends the meetings of the Working Party on National Accounts (WPNA), the Working Party on Financial Statistics (WPFS), and the Working Party on International Trade in Goods and Services Statistics (WPTGS). The BCCR is also involved in bilateral technical cooperation. The pre-condition is for the interested country to make a formal request to the Bank presidency. As regards cooperation with regional or international organisations, the BCCR participates in the programs described in Table 5.

Table 5. International cooperation of the BCCR

Statistical body	Organisation	Participation
Group of national accounts	United Nations Economic Commission for Latin America and the Caribbean (ECLAC)	Participation in the various meetings to analyse practical and theoretical issues on the implementation of the national account system.
Project for the co-ordination of foreign sector statistics (PRAESE)	Central America Panamá Dominican Republic Regional Technical Assistance Centre (CAPTAC-DR) established by the IMF	Implementation of the 6th edition of the IMF balance of payment manual (BPM6) and harmonization of foreign sector statistics in Central America, Panama and the Dominican Republic.
Group for the harmonization of monetary and financial statistics	Central America Panamá Dominican Republic Regional Technical Assistance Centre (CAPTAC-DR) established by the IMF	Implementation of the new manual and harmonization of monetary and financial statistics in Central America, Panama and the Dominican Republic.
WAVES group	World Bank. WAVES.	Development and implementation of the System of Environmental-Economic Accounting (SEEA) for the water and forestry accounts.

Source: BCCR.

Good practice 11.2. National Statistical Authorities participate in joint projects with other countries to share development burden.

390. The National Statistical Authorities of Costa Rica participate in joint activities within the framework of CENTROESTAD,[33] and in projects agreed upon in the working groups of the CEA of which Costa Rica is a member. Representatives from Costa Rican statistical authorities are actively involved in the Group Rankings Statistics CEA-UN; in the project to define and establish a plan to improve environmental statistics as well as various projects including employment,

[33] http://www.sica.int/sica/centroestad.aspx

migration, registration, time use (involving ten Latin American and Caribbean countries); Mesoamerican working group to support the production and delivery of SDG indicators, project promoted by the Government of Mexico. They are working on two projects in Central America: (1) improving statistical compendium of the region; and (2) adoption of a comparable framework for measuring poverty based on the Poverty Line methodology. INEC also participates with IDB Ecuador, Bolivia, Uruguay, Mexico in a Regional Advisory Group Initiative Project Information on Violence Against Women.

391. Over the past few years, INEC devoted significant effort to assist the South-South international cooperation, and to further develop co-operation with international organizations. Technical support was provided by welcoming interns from other Central American and Caribbean countries, such as Nicaragua, Cuba, the Dominican Republic, and Honduras. In addition, INEC organised and hosted workshops and seminars, e.g. the workshop on PAD-ANDA and public outreach policies organised by Paris 21 and the World Bank, events on environmental statistics, etc.

392. In regards to international technical cooperation, the BCCR receives assistance from the Regional Central America Panamá Dominican Republic Technical Assistance (CAPTAC-DR) established by the IMF, in fields such as basic statistics, balance of payments, national accounts, and quarterly accounts, among others. Moreover, internship programs are in place with other institutions such as the National Statistics Administrative Department of Colombia (DANE), and the National Statistics and Geography Institute of Mexico (INEGI).

Good practice 11.3. Heads of NSOs or their staff chair international statistical bodies.

393. At the time of writing, INEC's Manager is a member of the ECLAC's Executive Committee of the Statistics Conference of the Americas (SCA-ECLAC), which accounts for nineteen experts from American and European countries analysing the development of statistics in the Latin America and the Caribbean, as well as the regional and international cooperation programs on statistics.

394. In addition, Costa Rica holds the Pro-Tempore presidency of CENTROESTAD when appropriate, according to the rotating procedure established by the Central American Integration System (SICA).

Good practice 11.4. National Statistical Authorities participate in the main international statistical fora to exchange on their statistical practices, to participate in research and conceptual work and to contribute actively to the definition and design of international norms and statistical standards.

395. Costa Rica attends the annual meetings of the United Nations Statistical Commission and actively participates in the meetings of the Statistical Commission of the Americas (ECLAC) and CENTROESTAD. Since the beginning of the accession process, Costa Rica attended all the meetings of the Committee on Statistics and Statistical Policy at the OECD.

Good practice 11.5. Access to micro-data by international organisations is explored as a means to reduce the burden of countries responding to questionnaires.

396. Users from international organizations can access micro-data databases according to the same rules as users from national institutions, i.e. by signing a confidentiality agreement for licensed micro-databases. Questionnaires are completed by the responsible agency.

Good practice 11.6. National Statistical Authorities provide complete and timely answers to the questionnaires of international organisations.

397. During the accession review process, the National Statistical Authorities of Costa Rica have demonstrated their willingness to provide the OECD with requested statistics, and their capacity to develop specific tools for improving data transmission. INEC co-ordinates the provision of data and metadata to the OECD with the relevant institutions of the NSS.

Good practice 11.7. Producers of official statistics use modern statistical and IT tools, such as SDMX for the regular transmission of data and metadata to international organisations, notably the OECD.

398. Statistical authorities of Costa Rica use several means for the transmission of data and metadata to international organisations, including the OECD. Both INEC and the BCCR started to implement SDMX and successful pilot phases were implemented since the beginning of the accession review process. INEC is now able to transmit regularly to the OECD monthly CPI and infra-annual labour statistics through SDMX. INEC and BCCR benefitted from an extensive cooperation from INEGI Mexico for the implementation of SDMX, through the participation of INEC officials in internships at INEGI with experts in SDMX, and through technical assistance provided by an expert from INEGI who visited INEC. As mentioned above, INEC is currently participating to the Expert Group on Statistical Data and Metadata Exchange (SDMX).

399. The BCCR already transmits data to international organisations through the "Simple Object Access Protocol" (SOAP) web service, which can be used by SDMX to complement the data and metadata exchange formats, and committed to implement pilot tests for the transmission via SDMX by end 2019.

Overall assessment Recommendation 11:

400. The INEC, the BCCR and the MdH participate on a regular basis in international work to develop statistics and to improve international comparisons: Costa Rica takes part in the OECD meetings on a regular basis, actively participated in the work on the OECD Expert Group on Extended Supply-Use Tables launched in 2012, contributed to the development of indicators of Trade in value Added for Costa Rica in accordance with OECD-WTO guidelines, and both the INEC and the BCCR have developed the capacity to exchange data with the Secretariat via SDMX. Bi-lateral international cooperation with regional organisations (including ECLAC) is also in place through cooperation agreements with international and national agencies, commissions, working groups and tasks force.

2.2.12. Recommendation 12. Encourage exploring new and alternative data sources as inputs for official statistics, and in particular encourage statistical agencies to actively explore possibilities to use new data sources (including large datasets owned by the private sector) or to combine existing and new data sources as input for official statistics; while weighing the opportunities against the limits and danger of using modern information technologies.

Good practice 12.1. National Statistical Authorities actively encourage and undertake research on new sources and new methods for official statistics, including in the private sector and through combination of existing sources.

401. Procedures in place to encourage research activities in new fields are limited, mainly because limited financial resources are concentrated in order to ensure the collection and production of basic statistics in Costa Rica.

Good practice 12.2. National Statistical Authorities develop methodological work and IT structure to ensure the quality of official statistics when new and alternative data sources are used as input.

402. In the National Survey of Income and Expenditure 2013, INEC innovated by coordinating with the private sector to access information from purchases made by households in the larger supermarkets in the country.

Good practice 12.3. An explicit policy is formulated towards the use of "Big Data[34]" and private data that considers legal, technical and methodological implications.

403. There is no explicit policy nor specific plan as regards the use of Big Data and data from private sources in the production of official statistics.

Good practice 12.4. Implications for statistical infrastructure, statistical methods, and analytical tools are systematically assessed.

404. INEC conducts partial assessments on a case-by-case basis, depending on the statistical subject domain. However, INEC is reviewing processes and procedures and develops a culture of process management, in which the final stage of evaluation and feedback processes in different phases is considered essential. In this context, implications of the use of new data sources are analysed.

Good practice 12.5. There are explicit agreements between producers of official statistics and owners of private data; and legislation which regulates access to this information and deal with privacy issues.

405. There are no explicit agreements between producers of official statistics and owners of private data as regards the collection of information for the production of official statistics. INEC and the BCCR develop various communication strategies and direct contacts to obtain data from private sources. As mentioned above, the Law No. 7839 does not compel private entities to provide the statistical information and the implementation of the Law No. 9694 improves the capacity of INEC to collect private data. In the case of BCCR, information is mainly collected from enterprises and institutions via permanent direct communication.

Good practice 12.6. National Statistical Authorities participate in the development of capabilities to process geospatial data.

406. In Costa Rica, the National Geographic Institute (IGN) is empowered by law to produce and disseminate geospatial data and to produce standards and guidelines for geospatial information. The only official standard published by the IGN, and implemented in the digital mapping of the INEC, referred to the Executive Decree No. 33797-MJ-MOPT where reference is made to the new Geodetic Reference System CR05 and map projection associated (CRTM05). The reference system is based on a new National Geodetic Network defined as the official horizontal datum for Costa Rica, the CR05, linked to the International Terrestrial Reference Frame (ITRF2000),[35] International Service Rotation Earth (IERS) for the time measurement 2005.83, ellipsoid associated with the World Geodetic System (WGS 84).

[34]Big data refer to data sources that can be generally described as high volume, velocity, and variety of data that demand cost-effective, innovative forms of processing for enhanced insight and decision making.

[35]More recent references are available (ITRF2005, ITRF2008, and ITRF2014 published by the IERS on 22 January 2016).

407. In 2009, INEC produced internal rules and digital mapping mechanisms based on the Handbook on Geospatial Infrastructure in Support of Census Activities[36] produced by the United Nations Statistics Division.

408. As part of digital cartographic products, a nomenclature of locations was requested and used by the IGN in 2013 to update the political and administrative division of Costa Rica. Since 2015, INEC institutional mapping is updated and improved, notably in the perspective of the preparation of the 2021 population and housing census, through training courses and implementation of technical standards on geographic information (NTIG) published by the IGN. These standards are intended to facilitate and adapt information exchange between public sector, private sector, individuals and the general users, in addition to promote an appropriate dissemination and use of geographic information. Mandatory regulations published to date are:

- NTIG_CR01_04.2015_ Metadata Profile
- NTIG_CR04_06_2015 Geographic Data Model Costa Rica scales 1:1000, 1:5000 and 1:25 000
- NTIG_CR01_01.2016: Geodetic Reference System of Costa Rica
- NTIG_CR02_01.2016: Geographic Object catalogue for Fundamental Facts Costa Rica
- NTIG_CR05_01.2016: Web Publication Standards for Geographic Information Costa Rica
- NTIG_CR06_01.2016: Chart Specifications for Topographic Map scale 1: 25,000 of Costa Rica

409. INEC participates with some other institutions (MINAE, TSE, School of Geographical Sciences UNA, PRIAS-CENAT and INBIO) in the work of a non-official commission consultation (the National Meeting of Users of Geographic Information Systems and Remote Sensing, created in 2013) organised by the IGN in order to build an Infrastructure Geospatial data for Costa Rica (IDECORI) and to promote an efficient implementation of the regulations mentioned above.

410. Finally, INEC share experiences with other government bodies, non-governmental organisations, and private sector institutions in digital mapping associated with the 2011 population and housing census, and the 2014 census of agriculture. INEC also provides advices on the use of cartographic inputs to a number of institutions, including the Costa Rican Department of Social Security, Aqueducts and Sewers, University of Costa Rica, National Cadastre, Costa Rican Electricity Institute, National University, Supreme Electoral Tribunal, Municipality of San José, Foundation Housing developer, Group of Nation, Roof for my Country Foundation, Ministry of Public Security and the Judiciary, etc.

Overall assessment Recommendation 12:

411. The INEC and the BCCR are interested in exploring alternative data sources for the production of official statistics as indicated by the involvement of the INEC in the development of the use of geospatial information. However, the resource constraints limit INEC's participation in researches on new sources and new methods for official statistics.

[36] https://unstats.un.org/unsd/demographic/standmeth/handbooks/Series_F103en.pdf

Annex 2.A. Entities of the National Statistical System

Institution	Statistical responsibility
INEC	Demographics, households, housing, economic, employment and compensation (work)
BCCR	Monetary, balance of payments, national accounts and macroeconomic statistics
Costa Rican Fishing Institute	Fishing
Ministry of Agriculture and Livestock	Agriculture and Livestock
Ministry of Finance	Fiscal policies , public budget
Costa Rican Tourism Institution	Tourism (economic)
Ministry of Public Works	Transport, road safety, roads and highways
Costa Rican Institute of Electricity	Electricity
National Insurance Institute of Costa Rica (INS)	Insurances
Superintendency of Pensions	Social Security (pensions)
National Learning Institute (INA)	Vocational Technical Education
Ministry of Education	Pre-School, Primary and Secondary
Costa Rican Social Security Fund (CCSS)	Health and Social Security
Joint Social Welfare Institute (IMAS)	Poverty (social programs)
Judicial Power	Justice and Security
Ministry of Justice and Peace	Penitentiary system
Ministry of Environment and Energy	Environment
National Meteorological Institute	Weather
Supreme Electoral Tribunal	Electoral and Civil Registration.

Institutions to integrate the NSS in the National Statistical Plan Revision (end of 2015)

Institution	Issue
Ministry of Culture and Youth	Culture and Youth
Ministry of Science and Technology	Research and Development, Information Technology
Superintendency of Telecommunications	Information and communication technology
National Institute of Production	Agricultural domestic market and prices
National Commission of University Deans (CONARE) Public Universities	Statistics of higher education (public and private)

Source: INEC

Annex 2.B. List of Inter-Institutional Agreements (Source: INEC)

No.	Expiration Date / Institution	Name of Agreement	General Objective
1	2015 MAG	Inter-institutional Cooperation Framework Agreement between the Ministry of Agriculture and Livestock and the National Institute of Statistics and Censuses.	**General objective:** carrying out activities related to improving and articulating an agricultural statistics subsystem. **Specific Objectives:** a. Establishing alliances to carry out agricultural statistics research projects. b. Carrying out joint efforts for the collection of information. c. Carrying out activities for assessing the information quality. d. Standardizing mechanisms and procedures for collection, processing and presentation of information.
2	2015 MAG	Specific Agreement of Inter-institutional Cooperation between the National Institute of Statistics and Censuses and the Ministry of Agriculture and Livestock for the Design and Development of Farms and Agriculture Establishments and the monthly Survey of agricultural area and production.	**General Objective:** Carrying out activities for improving the national subsystem of agricultural statistics, by creating a directory of farms and agriculture establishments and carrying out a continuous survey on agricultural crops. **Specific Objective:** a. Creating a Directory of Farms and Establishments devoted to agricultural, livestock, forestry, and aquaculture activities. b. Designing and implementing Monthly Survey on the areas of these Farms and establishments and their use.
3	2015 UNED	Letter of Understanding between the **National Distance University (UNED for its Spanish Acronym) and the National Institute of Statistics and Censuses** for the coproduction of videos on the elaboration of national statistics, teaching, dissemination and use of statistics.	Carrying out joined actions in order to have audiovisual material to promote knowledge of INEC's function, understanding of the production process of national statistics, and promoting the appropriate use of information and its use for teaching statistics.
4	2015 INAMU	Letter of Understanding to the Framework Agreement between the **National Institute of Women and the National Institute of Statistics and Censuses.**	Defining collaboration and support measures between INEC and INAMU within the already existing agreement frame in order to improve the country's gender statistics.
5	2015 MIN CULTURA	Letter of Understanding between the National Institute of Statistics and Censuses (INEC) and the Ministry of Culture and Youth.	Defining a work plan among the parties during 2014 y 2015, that allows to comply with the requirements and conditions for the strengthening of statistics on culture and the execution of NNC in 2016.
6	2015 IICA	Letter of Understanding for technical cooperation between the Inter-American Institute for Cooperation on Agriculture (IICA) and the National Institute of Statistics and Censuses (INEC)	Defining the terms and conditions between IICA and INEC, in order to define a strategy for the training program, it's implementation, and supporting the creation of a virtual course for the next levels of training for the VI National Agricultural Census.
7	2016 CONARE	Inter-institutional Cooperation Agreement between the National Institute of Statistics and Censuses (INEC) and the National Council of University Deans (CONARE) (State of the Nation Program)	a) Contributing to INEC's and the National Statistics System's activities in order to provide the country with valid, relevant, timely, and accessible data. b) Facilitating the use of information produced by INEC with the goal of democratizing the access to statistical information c. Promoting research activities which will be carried out by CONARE by means of the State of the Nation Program, and other which could be implemented in the future.
		First Addendum to Inter-institutional Cooperation Agreement between the National Institute of Statistics and Censuses (INEC) and the National Council of University Deans (State of the Nation Program)	Modifying clauses number four and five of the Agreement, in relation to the contributions of each part in order to include other of inter- institutional interest.
8	2016 MEIC	Inter-institutional Cooperation Framework Agreement between the Ministry of Economy, Industry and Commerce and the National Institute of Statistics and Censuses (INEC)	Benefiting from the strengths and knowledge of both institutions in their field of action, for the development of projects and products reinforcing information exchange within established confidentiality parameters.
9	2016 UCR OBSERVATORIO	Letter of Understanding between **The University of Costa Rica and the National Institute of Statistics and Censuses (INEC)**	Benefiting from institutional strengths, knowledge, and capabilities for sharing statistical information and carrying out joined research and dissemination activities of national statistics.
10	2016 UCR	**Inter-institutional Cooperation Framework Agreement between the University of Costa Rica and the National Institute of Statistics and Censuses (INEC)**	Benefiting from the strengths and knowledge from both institutions in their specialty, for the development of projects and products of particular institutional interest or national interest.
		Addendum No. 1 Inter-institutional Cooperation Framework Agreement between the University of Costa Rica and the National Institute of Statistics and Censuses (INEC)	Modifying clause eight of the AGREEMENT which refers to its effective time, extending it for an additional period from the originally agreed on by the parties.
11	2016 MIN SEGURIDAD PUB	Interinatitutional Cooperation Agreement between the el **Ministry of Public Security and the National Institute of Statistics and Censuses (INEC)**	Exchanging digital information, providing technical advice in different areas of common interest, developing joined activities for the achievement of institutional objectives.
12	2016 UCR-CCP	Letter of Understanding between the **University of Costa Rica (Central American Population Center) and the National Institute of Statistics and Censuses (INEC)**	**a)** Contributing for Costa Rica to have valid, relevant, timely, and accessible statistical information on its socio-demographic situation; **b)** Contributing to a greater democratization of access and use of statistical data produced by INEC; **c)** Facilitate the execution of joined research activities and projects with INEC and the UNIVERSITY, specially those related to the 2011 National Population Census: production of life charts, production and updates of national and sub national population estimates and projections; and **d)** Contributing to the development of SEN's human resources statistics capability.

13	2017 TSE	Inter-institutional Cooperation Framework Agreement between the Costa Rican Electoral Tribunal and the National Institute of Statistics and Censuses (INEC)	Establishing a commitment for the exchange of statistical information and technical advice in common interest areas such as collecting and updating information and statistical and geographic databases, usage and updating mechanisms. Benefiting from the strengths and knowledge for the development of projects and products of national and international interest.
14	2017 MIDEPLAN	Inter-institutional Cooperation Framework Agreement between the Ministry of National Planning and Economic Policy y and he National Institute of Statistics and Censuses (INEC)	Setting a referential legal framework for defining and executing projects and activities among the parties. Projects and activities will be of public interest / Developing mechanisms for selection and execution of projects and activities, as well as for the generation and exchange of information.
15	2017 MIDEPLAN	**Letter of Understanding** to the Framework Agreement between the **Ministry of National Planning and Economic Policy and he National Institute of Statistics and Censuses (INEC)**	Regulate INEC's statistical information transfer and use conditions in favor of MIDEPLAN. Defining collaboration and support measures for INEC's institutional planning activities.
16	2017 MAG MIN SALUD	**SPECIFIC COOPERATION AGREEMENT** Between the **Ministry of Agriculture and Livestock and he National Institute of Statistics and Censuses (INEC)**	Carrying out joined actions sharing resources among the PARTIES for the establishment of SINSAN, with the goal of providing timely and trustworthy information; monitoring and evaluation public policies oriented to reinforce Costa Rica's Food and Nutrition Security.
17	2017 PODER JUDICIAL	**SPECIFIC INSTITUTIONAL COOPERATION AGREEMENT** Between he National Institute of Statistics and Censuses and **the Costa Rican Judicial Power**.	Generating and exchanging information for the elaboration of national statistics and their corresponding geographic information systems and products with particular institutional or mutual interest.
18	2017 INAMU	Inter-institutional Cooperation Agreement between the national Institute of Statistics and Censuses and the National Institute of Women.	Coordinating actions for SEN / Integration in the National Statistic Development Strategy on gender perspecthe as strategic objective / Promoting update and creation of new indicators sex indicators / Carrying out specialized research on the situation and position of women and men in the country/ Exchanging statistical information for monitoring gender equality and equity / Promoting opportunities for mutual training.
19	2017 FUNDACION TECHO PARA MI PAIS	Specific Inter-institutional Cooperation Agreement between the National Institute of Statistics and Censuses and the "Roof for my Country Foundation".	Generating and exchanging information for the elaboration of national statistics and their corresponding geographic information systems and products with particular institutional or mutual interest.
20	2017 UCR ESC ESTADIST	**Letter of Understanding** between the University of Costa Rica and the National Institute of Statistics and Censuses.	Benefiting from institutional strengths, knowledge, and capabilities for sharing statistical information and carrying out joined research and dissemination activities of national statistics.
21	2018 UNA	**Framework Agreement** between the **National University and the National Institute of Statistics and Censuses.**	Benefiting from the strengths and knowledge from both institutions in their specialty, for the development of projects and products of particular institutional interest or national interest.
22	2018 ARESEP	**Cooperation Framework agreement** between the **Public Services Regulatory Authority and the National Institute of Statistics and Censuses.**	Generating and exchanging information for the elaboration of national statistics and their corresponding geographic information systems on different sectors where public senices regulated by Aresep are developed. Developing statistical projects and products of particular institutional interest or national interest.
23	2018 ARESEP	**Letter of Understanding** No.1 between **the Public Services Regulatory Authority and the National Institute of Statistics and Censuses.**	Exchanging cartographic and statistic studies, information, and archives for the development of products of public interest related to the integrated water resources management. Improving and reinforcing institutional processes and procedures involved in the generation and dissemination of statistical data from administrative, operational, and cartographic records managed by the AyA; it includes strengthening of technical and human capacities required for such purposes.
24	2019 BCCR	**Cooperation Framework Agreement** between **Central Bank of Costa Rica and the National Institute of Statistics and Censuses** for Supporting the Development of a Comprehensive Implementation Program of the Macroeconomic Statistics System.	Establishing a general referential frame incorporating coordination procedures and a general agreement on the distribution of functions and commitments undertaken by both, for the execution of the Program as well as SEN's creation.
		First Addendum to the Cooperation Framework Agreement between the **Central Bank of Costa Rica and the National Institute of Statistics and Censuses** for Supporting the Development of a Comprehensive Implementation Program of the Macroeconomic Statistics System	Modify clauses 3, 5, 6, 8, 14 and Annex 1 of the agreement and eliminate clause 10.
		Second Addendum to the Cooperation Framework Agreement between **the Central Bank of Costa Rica and the National Institute of Statistics and Censuses** for Supporting the Development of a Comprehensive Implementation Program of the Macroeconomic Statistics System	Modify clause 14, 15 and Annex 1 of the Agreement.
25	2019 LA NACIÓN	**Cooperation Agreement** between **La Nación S.Athe National Institute of Statistics and Censuses.**	Widely disseminating information from the 2011 NATIONAL CENSUS on the printed platform, website and digital version of LA NACION newspaper, using official data provided by INEC; and empowering citizens and users to analyze the information from the 2011 NATIONAL CENSUS for decision [illegible]

26	2019 UNED	**Cooperation Agreement** between the National Distance University (UNED) and **the National Institute of Statistics and Censuses** for the development of joint cooperation projects .	Benefiting from the strengths and knowledge from both institutions, for the development of projects and products of particular institutional interest or national interest
27	2019 COOPESANTOS	**Cooperation Agreement** between the " ***Cooperativa de Electrificación Rural Los Santos*" the National Institute of Statistics and Censuses (INEC)**	Benefiting from the strengths, knowledge, and capabilities of both PARTIES for the exchange and bettering of statistic and cartographic information and updating digital cartographic and the development of joined projects.
28	2019 MIN HACIENDA - BCCR	Inter-institutional Cooperation Agreement between the Ministry of Finance, the National Institute of Statistics and Censuses, and the Central Bank of Costa Rica for the execution of the economic study of enterprises.	Facilitating collection of information from the non-financial private sector, which is necessary for the Base Year Change project.
		First Addendum to Interinsittutional Cooperation Agreement between the **Ministry of Finance, the National Institute of Statistics and Censuses, and the Central Bank of Costa Rica for the execution of the economic study of enterprises.**	Modifying clauses 7, 8, 9, 13 y 16 and Annex No.1 of the agreement to adjust its content to the current requirements and demands of the Economic Study of Enterprises, in order to better meet the project's public objective.
		Second Addendum to Interinsittutional Cooperation Agreement between the **Ministry of Finance, the National Institute of Statistics and Censuses, and the Central Bank of Costa Rica for the execution of the economic study of enterprises.**	Modifying clauses 3,16, and 19 of the agreement to adjust its content to the current requirements and demands of the Economic Study of Enterprises, in order to better meet the project's public objective.
29	2020 FLASCO	Inter-institutional Framework Agreement between the Latin American Faculty of Social Sciences (FLASCO) and the National Institute of Statistics and Censuses	Benefiting from the strengths and knowledge from both institutions in their specialty, for the development of projects and products of particular institutional interest or national interest.
30	2020 MOPT	Inter-institutional Cooperation Agreement between the Ministry of Transport and Public Works and the National Institute of Statistics and Censuses.	Benefiting from the strengths, knowledge, and capabilities of both PARTIES for the exchange and bettering of statistic and cartographic information and updating digital cartographic and the development of joined projects.
31	2020 MIDEPLAN PANI UNICEF	**Specific Agreement of Cooperation** between the **Ministry of National Planning and Economic Policy, The National Children's Trust (PANI), the United Nation's International Children Emergency Fund, and the National Institute of Statistics and Censuses.**	Carrying out joined actions sharing resources among the PARTIES for the establishment of SINA, with the goal of providing timely and trustworthy information for the formulation, follow-up, and evaluation process of public policies oriented to enforce the rights of children and adolescents.
32	2020 DIRECCIÓN GENERAL DE SERVICIO CIVIL	Inter-institutional Cooperation Agreement between the Civil Service's General Management and the National Institute of Statistics and Censuses.	Setting specific cooperation and technical assistance terms between DGSC and INEC for institutional empowerment.
33	2021 ICE	Inter-institutional Cooperation Agreement between the Costa Rican institute of Electricity and the National Institute of Statistics and Censuses.	Joining efforts in order to contribute with the preparation, organization, listing, processing, releasing, and disseminating of the 2011 Census; and contributing to improve the level of access of the population to electricity and communication and information technologies through projects of national interest that use 2011 Census' geostatistical information.
34	2021 MTSS	Inter-institutional Cooperation Agreement between the National Institute of Statistics and censuses and the Ministry of Labor and Social Security.	Establishing a permanent technical coordination for the production and use of Employment and Social Security statistics, within the frame of functions and legal liabilities of each institution.
35	2022 SUTEL	Inter-institutional Cooperation Agreement between the National Institute of Statistics and censuses and the Telecommunications Regulatory Authority.	Generating and exchanging information for the creation of national statistics and their corresponding geographic information systems on telecommunication activities, information technologies, and the development of projects and products of particular institutional or mutual interest.
36	2022 MICIT	Inter-institutional Cooperation Agreement between the National Institute of Statistics and censuses and the Ministry of Science and Technology.	Establishing terms and conditions of collaboration between MICIT and INEC for the exchange of digital information and technical support on areas of common interest, for obtaining, using, and updating statistical databases and creating samples used in the construction of national science, technology, and innovation indicators and covering any other area mutually agreed on by the parties.
37	2022 FUPROVI	Inter-institutional Cooperation Agreement between the [illegible] Foundation for Housing Promotion.	Implementing Inter-institutional cooperation between INEC and FUPROVI for [illegible] development of joined activities.

38	2023 MIN CULTURA	Inter-institutional Cooperation Agreement between the National Institute of Statistics and censuses and the Ministry of Culture and Youth.	Generating and exchanging information for the elaboration of national statistics on Culture and the development of projects products with particular institutional or mutual interest.
39	2023 COLEGIO ARQUITECTOS	Inter-institutional Cooperation Agreement between the Costa Rican Federated Association of Engineers and Architects.	Establishing effective collaboration mechanisms between INEC and the Costa Rica Federated Association of Engineers and Architects in reference to the management of statistical information on the construction industry at a national level, in reference to the database administrated by both institutions, with the objective of providing accurate information so that the Costa Rican society and different institutions can make decisions.
40	2023 COLEGIO CIENCIAS ECONÓMICAS	Inter-institutional Cooperation Agreement between the National Institute of Statistics and censuses and the Federated Association of Economic Science Professionals.	Benefiting from the strengths and knowledge from both institutions in their specialty, for the development of projects and products of particular institutional interest or national interest.
41	2023 AyA	Inter-institutional Cooperation Agreement between the National Institute of Statistics and censuses and the Water and Sewage Institute.	a. Establishing effective collaboration mechanism between ONEC and AyA for the exchange of statistical and cartographic information produced by both institutions. b.Developing joined activities for the management of timely and quality information, which is useful for the different hierarchical authorities and the Costa Rican society to make informed decisions on water supply and sanitation services. c. Establishing technical cooperation relationships for the improvement of institutional processes and procedures related to the generation and dissemination of statistical information on water supply and sanitation services.
42	2023 AyA	Specific Agreement between that National Institute of Statistics and Censuses and the National Water and Sewage Institute.	1. Exchanging cartographic and statistic information and archives for the development of products of public interest related to the integrated water resources management. 2. Improving and reinforcing institutional processes and procedures involved in the generation and dissemination of statistical data from administrative, operational, and cartographic records managed by the AyA; it includes strengthening of technical and human capacities required for such purposes.
43	2024 CONAPAM	Inter-institutional Cooperation Agreement between the National Institute of Statistics and censuses and the National Advisory Board for the Elderly Person.	Carrying out activities for improving the availability of data on elderly population.
44	2024 MINAE IMN	Inter-institutional Cooperation Agreement among the National Institute of Statistics and Censuses (INEC), the National Meteorology Institute (IMN), and the Ministry of Environment and Energy (MINAE)	Establishing as strategic alliance under which MINAE-IMN will provide very specific information on those products generated from projects related to the Water Resource and GEI Inventories. INEC will also undertake a commitment with MINAE-IMN to provide relevant information gathered from national censuses, surveys, and others, for the development of projects on water resources. GEI inventories will be taken as retribution for the exchange of information and established alliance.
45	2025 INFOCOOP	Inter-institutional Cooperation Agreement between the National Institute of Statistics and Censuses (INEC), and the National Institute for Promotion of Cooperativism (INFOCOP).	Promoting the generating and exchange of information for the elaboration of national statistics on cooperativism and the development of projects and products of particular institutional or mutual interest.
46	IIPE/UNESCO DOES NOT EXPIRE	Letter of Understanding between the National Institute of Statistics and Censuses (INEC) **and Unesco's International Institute for Education Planning, Buenos Aires regional location (IIPE/UNESCO)**	• Promoting a greater knowledge on the relation of education and the Costa Rican Society. • Generating and disseminating representative trend indicators of the main dimensions of the social and educational situation of Costa Rica in a Latin American context. • Identifying new social and educational phenomena in Costa Rica from a permanent analysis of information.
47	ITCR DOES NOT EXPIRE	Cooperation Framework Agreement between the **Costa Rican Technological Institute and the National Institute of Statistics and Censuses (INEC)**	Establishing the basis for reciprocal cooperation, which facilitates the promotion and implementation of common interest activities, such as academic and student exchanges, research projects, information exchange, and other activities of interest for both institutions.
48	JUNTA REG NAC DOES NOT EXPIRE	Inter-institutional Cooperation Agreement between the National Registry's Management's Board and the National Institute of Statistics and Censuses (INEC)	Transferring information from databases from the Movable and Immovable Property Records and Legal Persons Records from INEC's managing board to be exclusively used in activities related to production of national statistics.
49	SIECA DOES NOT EXPIRE	Cooperation Agreement between the **Secretariat for Central American Economic Integration and the National Institute of Statistics and Censuses (INEC)**	Carrying out all of the activities required at different stages of the Integrated System's implementation. SIECA and Costa Rica's INEC will widely collaborate with each other and will abide by the terms of the "Cooperation agreement for the design and implementation of the "Information Integrated System for Central America's Integration"

Source: INEC

Chapter 3. STATISTICAL INFRASTRUCTURE

3.1. Background

412. This chapter presents a review of some of the main data collections, activities and services of the Costa Rican main statistical infrastructure,[37] i.e. those activities seen as horizontal across a statistical authority and which, in most cases, have a direct impact on the compilation and dissemination of the statistical activities being undertaken and are vital for their compilation. Some of these are covered in the other chapters of the review (in particular chapter 1 on the legal and institutional framework for official statistics, chapter 3 on national accounts statistics; chapter 5 on Structural Business and Demographic Statistics; chapter 11 on labour statistics; and chapter 13 on income distribution and poverty indicators).

413. In this chapter, statistical infrastructure covers the following statistical programmes:

- - Population and Housing Census
- - Agricultural Census
- - Statistical Business Register
- - International Standards and Classifications
- - Labour Force Surveys and households surveys

414. Both INEC and BCCR maintain statistical business registers, mainly because INEC's access to administrative sources had been limited by law. The implementation of the new Statistics Law No. 9694 greatly improves the situation by enhancing data sharing, thereby reducing duplication and improving the quality of business registers. According to the Law No. 9694, INEC has responsibility for conducting the censuses, Labour Force Surveys, and households surveys. Classifications (where coordination is under the responsibility of INEC) are a core component of the compilation process for both INEC and BCCR (and for all producers of official statistics in the NSS).

415. The objective of this review is to determine whether the Costa Rican statistical infrastructure entities are in conformity with best policies and practices in OECD countries. This review is the result of fruitful co-operation between the statistical authorities in Costa Rica and the OECD Statistics and Data Directorate (SDD). Information used for the preparation of this summary assessment of Costa Rica's statistical infrastructure was collected using a detailed template. Information from INEC and from the BCCR internet websites has been also used.

416. In some cases, such as classifications, no statistics are directly derived. However, for others, such as business registers, population and agriculture censuses, as well as providing core components in the compilation of a majority of the other statistical activities being undertaken in the statistical authority they also have their own outputs which are disseminated.

[37] In some cases the OECD Statistics and Data Directorate does not have data collection programmes for the activities covered in this chapter.

3.2. Population and housing census

3.2.1. Background

417. A population census is the total process of collecting, compiling, editing, analysing and disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country. A housing census is the total process of collecting, compiling, editing, analysing and disseminating statistical data pertaining, at a specified time, to all living quarters (as defined in the UN Principles and Recommendations for Population and Housing Censuses, Revision 2) and occupants in a country. In general, both censuses are conducted jointly.

418. A population and housing census plays an essential role in all elements of a NSS, being used as a benchmark for statistical compilation and as a sampling frame. A vital aim of a census is to ensure that topics covered are appropriate for meeting the needs of all users (including, importantly, the NSS) taking into account considerations such as cost-effectiveness. This can be achieved through consultation with users through all stages, incorporating measurable standards into the process and adequate testing of all stages of the process.

419. While some countries are capable of generating a population and housing census from administrative data or through a combination of sources, Costa Rica, like the vast majority of countries, produces census data on population and housing through the traditional survey based method. The United Nations recommended that all countries undertake a population and housing census at least once during the period 2005-2014 (around the year 2010). Costa Rica undertook its last Population and Housing Census in 2011.

420. The 2011 population and housing census was the 10th population census and the 6th housing census. Previous population censuses have been undertaken in 1864, 1883, 1892, 1927, 1950, 1963, 1973, 1984 and 2000 (in other words one has been held roughly every 15 years since 1864). Previous housing censuses have been held in 1949, 1963, 1973, 1984 and 2000. The 1950 census was the only housing census not to be conducted jointly with the population census.

421. Law No. 9694 on INEC and the NSS, amending the Law No. 7839 and adopted on 29 May 2019 establishes the following basic statistics principles as regards the population census:

- Article 34 (f) establishes that INEC is responsible for the preparation of the national population and housing censuses and that the period between two successive national population and housing censuses is maximum ten years.
- Article 48 instructs the Manager of INEC to establish the coordination with institutions in the public sector for the national population and housing census (Article 48 (j)), and to lead its technical and administrative development (Article 48 (k)).
- Article 53 ensures that the preparation and execution of the national population census, as well as the publication of the results, will be financed by INEC and, if necessary, by the government. The transitional provision III establishes that the MdH will finance the 2020 and 2030 censuses.

422. Article 15 of the Law No. 7839 legally entitled INEC to request census information to generate statistics but respondents had no legal obligation to provide the requested information. To overcome this situation, INEC encouraged the population to participate in the census by explaining the benefits of their participation for the country, including the capacity of the government to define better evidence based policies. The adoption of the Law No. 9694 strengthens the mandate for data collection of INEC and other producers of official statistics and

its implementation should improve significantly the capacity of INEC to gather information through censuses and surveys (see Chapter 1).

423. Article 33 of the Law of the NSS, No. 7839, states that INEC provide a full census budget to the government two years in advance of the proposed census to secure funding (in addition to their regular ongoing funding). INEC states that for the census funding "in some cases such funding is compromised and subject to political will, thus considered a risk". The Law No. 9694 also ensures the financing of the population censuses every ten years.

424. In addition to the government census funding, INEC has received technical and financial support from international organisations (e.g. UN Population Fund - UNFPA) to help with the undertaking of past censuses. In most cases, this support has been in the form of technical assistance, for example in the area of cartography.

425. For the development and execution of the 2011 census, INEC created a specific in-house division with approximately 250 employees, the Population and Housing Census Area, composed of three units: design, processing and analysis; field operations; and census cartography. In addition, the Statistics Demography Section is responsible for the compilation of demographic estimates and vital statistics (births, deaths, marriages). This section includes a coordinator and three professionals.

426. The 2011 Costa Rican population census provides basic information about the residents, the geographical distribution of the population, sex, age, household's structure (kinship among the family members), migration, disability, ethnic group, social security coverage, employment, occupation, economic activity, unemployment, inactivity, unsatisfied basic needs, education, assistance to regular education, literacy, fertility, and mortality.

427. The housing census allowed the production of statistics about the population housing conditions in terms of type of housing unit, number of living quarters, type and state of construction materials, availability of utilities and basic house furnishings.

428. A wide range of people and institutions (including international organisations) were consulted ahead of the 2011 census, in particular on the questions and the design of the questionnaire. These consultations resulted in a final questionnaire structured into four sections: localisation; housing unit characteristics; identification of the total number of persons and households; and socioeconomic characteristics.

429. The population and housing census represents a fundamental instrument for data collection on the number and characteristics of the population, data that are extensively used in the design, monitoring, and evaluation of policies targeted at households and specific groups. The census is also key for developing the sample frames used in a number of statistical surveys and in achieving international comparability for purposes of analysis. The census contributes to the well-being of the population and communities through the supply of information for decision making, addressing the need of having updated information in the country. Census data are used by different groups of users (all levels of government, autonomous and semi-autonomous institutions, private sector, academia, students, media, international organisations, NGOs and the public with specific uses and needs, which leads to different priorities.

3.2.2. Coverage

430. The 2011 census was a *de Jure* census, meaning that each person was interviewed in his/her current residence, even if he/she was not present on the voters list. Each person and dwelling was registered separately. Usual residence was defined as the place where a person lived in the six months before the date of the census. The census was carried out in all districts (except

in district 10 of the canton of Puntarenas, namely Coco Island, which does not have any residents) between May 30th and June 3rd, 2011.

431. The estimated population was 4 301 712, of whom 2 106 063 are men and 2 195 649 women. The foreign-born population is of special interest in Costa Rica, and the 2011 census recorded an increase in this population living in Costa Rica to 385 899 people representing 9.0% of the total population. Nicaraguans remain the majority (287 766), accounting for 74.6% of all immigrants living in the country.

432. The housing census recorded a total of 1 360 055 homes, of which 1 359 168 correspond to individual dwellings (occupied and unoccupied) plus 887 collective dwellings, such as children's homes, convents, prisons, etc., (Costa Rica doesn't have an armed force).

433. The census covered a wide range of topics and domains (116 variables in total) resulting in a very rich final dataset. The thematic domains can be broken down as follows (with a non-exhaustive list of variables):

- Dwelling – type (individual or collective, ownership); walls, ceilings, floor materials; quality and condition of dwelling; access to basic services (e.g. water, electricity, toilet); access to ICT; tenure of appliances; overcrowding; waste disposal.
- Household – number within the dwelling; head; emigrants; remittances.
- Population – family relationship; structure by sex and age; migration; ethnic self-identification; social security; language; disability; education; using ICT; marital status; employment; fertility.
- Other – population density; demographic dependency ratio; type of dwelling; average schooling; educational underachievement; open unemployment; unsatisfied basic needs; poverty.

434. Field operations were coordinated by the INEC census team and the overall organisation and production of the census was divided into 27 work areas. While a large number of the field personnel were teachers, additional individuals were required to ensure the work was completed, in particular in urban areas.

435. Since 1950, the Ministry of Public Education (MPE) has traditionally been involved in population censuses. The MPE allows personnel in the Ministry (mainly teachers) to participate, mainly as enumerators. An Inter-Institutional Cooperation Agreement has been signed between INEC and the MPE to achieve good coordination.

436. Approval from the Government Accountability Office was obtained to provide a compensation (approximate $100 dollars) and when applicable, a travel allowance, to the teachers who participated in field operations. In addition, prepaid mobile SIM cards were delivered for the use of the field personnel and the training process was acknowledged within the professional teaching career. The participation of teachers being voluntary, this economic incentive is important.

437. In regards to the training, a strategy was designed to develop distance-learning programmes in cooperation experts from MPE. Dynamic activities were also designed using established methodological guidelines with corresponding materials, and with the purpose of ensuring that the census training was standardised.

438. For the census itself, the smallest geographical unit corresponds to the Minimum Geo-statistical Units (UGM, its acronym in Spanish). INEC established three levels of geographical

breakdown: province, canton and district. For census cartography purposes, each district was divided into UGM.

439. Various technological improvements were introduced as part of the 2011 Census, including the introduction of digital cartography based on the UGM geographical breakdown, and census questionnaire scanning, resulting in reduced processing time and enabling INEC to generate preliminary data more rapidly.

440. The census reference period was 30 May 2011, the reference week for the employment topic started 22 May 2011 and the reference for place of residence 5 years ago was June 2006.

3.2.3. Census Estimates

441. The IMF's Special Data Dissemination Standards (SDDS) include metadata provided by the country for their statistics as published on the IMF's SDDS website. In regards to population estimates, the following is stated on Costa Rica's SDDS page for 'Population': The data of the estimations are the result of the work coordinated between INEC and the Central American Centre of Population of the University of Costa Rica (CCP). The credits and the use of the data are shared by both organisations.

442. The Central American Population Centre (CCP) is a research institute affiliated to the University of Costa Rica and dedicated on research on the demography in the national and Central American areas. Cooperation areas between CCP and INEC traditionally include the population censuses evaluations and the preparation of population estimates, in accordance with a technical cooperation agreement defining the responsibilities of each of the parties, as well as the confidentiality principles governing the management of databases, as CCP needs to have access to confidential information for the production of population estimates.

443. National population estimates are jointly produced by INEC and the CCP. The CCP assigns one or two researchers and INEC provides the Demographic Unit Coordinator. The methodology is jointly discussed and agreed, and the results are jointly published. However, INEC is solely responsible for the production of estimates for the small areas (cantons and districts). Population estimates and projections will be updated by using results of the 2021 Population Census and the calculations will be elaborated by the Demographic Statistics Unit that has established a specific team to this end, including professional statisticians and social scientists in addition to the persons in charge of the coordination of the Unit.

3.2.4. Dissemination

444. Data for the censuses from 1864 to 1963 are only available in hardcopy (paper) form, while all data from the censuses between 1973 and 2011 are available in electronic databases. Results of the 2011 census preliminary were made available six months after completion of the registration, and the final results were disseminated in May 2012 (one year after registration).

445. Anonymised microdata (public use files) are available on INEC's website, and at the time of writing this report, INEC is working on a fully anonymised database accessible for users. INEC also releases microdata files under license, with a lower level of anonymization, enabling academic researchers and users authorised by their institutions to access microdata by signing a confidentiality agreement committing them to safeguard confidential information.

446. Users are enabled to produce their own tables from the limited anonymised databases available on the website, using the Data Recovery for Minor Geographic Areas software (REDATAM) developed by the Latin-American Demographic Centre (CELADE), an affiliate of the UN Economic Commission for Latin America and the Caribbean (CEPAL).

447. A large number of publications have been produced and disseminated by INEC on the 2011 census results, including innovate publications such as – Main Indicators of Informal Settlements, Juniors in the Light of the 2011 Population Census, Native Territories, etc. Additionally, a fully digital mapping service is available online.

3.2.5. Compliance

448. According to INEC metadata, the Costa Rica 2011 National Population and Housing Census and estimation procedures comply with the UN Principles and Recommendations for Population and Housing Censuses, Revision 2. It is clear that INEC understands the requirements of the UN manual and has had dealings with the UN and other international organisations (e.g. Community of Andean Nations) in the design, compilation and dissemination phases of the census. While there is extensive census metadata available in Spanish on the website of INEC there is very little metadata available in English,[38] with the exception of the information supplied directly to the OECD and that available on the IMF SDDS website. In regards to the metadata summary on the IMF SDDS website, the metadata does not appear complete and in some cases is unclear.

449. All census 2011 methodology and metadata are systemised and available in the Accelerated Data Programme on the INEC website (only in Spanish). This includes: handbooks for enumeration; user consultation reports and processes; assessment report from the pilot census held in Palmares; codification process of economic activities and occupations; full reports on the 2011 collection and compilation processes; variable lists and descriptions; and general metadata.

450. During the review process, INEC has explained that the only census metadata available in English is that on the IMF SDDS website. At the time of writing this report, an English version of the questionnaire has been produced and made available on the INEC website and INEC hopes to find the resources to translate all the relevant census metadata in English in the context of the ongoing process of revamping the INEC website.

451. The following handbooks, manuals and classifications were used in the compilation of the 2011 census:

- Principles and Recommendations for Population and Housing Censuses, Group of Experts from United Nations, Round 2010, 2008.
- Handbook on Geographic Information Systems and Digital Mapping, United Nations, 2000.
- Handbook on Geospatial Infrastructure in Support of Census Activities, United Nations, 2010.
- International Classification of Functioning, Disability and Health (ICF), World Health Organization, 2001.
- Recommendations of the Washington Group on Disability Statistics, UN, 2007.
- Classification of Economic Activities in Costa Rica 2011 [CAECR 2011], based on the International Standard Industrial Classification of All Economic Activities (ISIC Rev.4) of the United Nations, 2006.

[38] At the time of writing this report, INEC announced the forthcoming release on its website of guidelines in English for the census, including information on the conceptual part, as well as the questionnaire of the census.

- Occupational Classification of Costa Rica 2011 [COCR 2011], based on the International Standard Classification of Occupations (ISCO-08) of the ILO, 2008.

452. According to available metadata, the 2011 Census of Costa Rica appears compliant with the fundamental principles of universality within a defined territory, simultaneity, defined periodicity and individual enumeration. It is assumed to have covered the target population under international guidelines: all nationals present in, or temporarily absent from, the country and aliens resident in the country.

453. INEC has started planning for its next full census, initially scheduled for 2020 but postponed to 2021 by the government due to financial difficulties. INEC works on the preparation of the 2021 Census, including updating cartography, methodological design, organisation of the census registration, and pilot test. INEC will also participate in the elaboration of the "Principles and Recommendations for Population and Housing and Census Round 2020" conducted by the UN.

3.2.6. Population statistics

454. In Costa Rica, population estimates and projections of population are produced by INEC based on the population census conducted approximately every 10 years, in cooperation with the Central American Population Centre and the University of Costa Rica. The methodology is validated by the Latin American and Caribbean Demographic Centre (CELADE-ECLAC). The last update was made in 2012 and national estimates for past, current and projected population are available for the period 1950-2050. Estimates and projections by sex and five-year age groups at district level were lastly updated in 2014 and cover the period 2000-2025.

455. Vital statistics (births, death, marriages) are produced in cooperation with the Supreme Electoral Tribunal (TSE), the Ministry of Health and the Costa Rican Social Security (CCSS). There is neither population registry nor migration statistics produced in Costa Rica. Statistics on births, deaths and marriages are based on administrative data collected by the TSE via its registry offices, located in the regional offices throughout the country. TSE also visits indigenous territories once a month to collect information. Civil Registry's employees are also maintained in each public and private hospitals and health centres.

456. TSE collects and digitalises certificates on vital events that are then integrated into INEC database by a specific team of ten members. This information is subsequently reviewed, tabulated and processed to deliver the relevant indicators. Results at each geographical level (national, provinces, cantons and districts) are publicly made available via a press release two months after the end of each semester. Annual microdata are available 2 months after the end of the calendar year. In 2014, the coverage of births and deaths indicators was audited by independent consultants who confirmed their high quality. The calculation methods follow the UN "Principles and Recommendations for Vital Statistics" and the classification of death uses the International Statistical Classification of Diseases and Related Health Problems (CIE-10). The statistical processes of Vital Statistics are incorporated in the Accelerated Data Program (PAD). At the time of writing this reports, INEC is working with the TSE on an intelligent data capture system and on the implementation of an automated coding of causes of death, which has already taken the first steps to start the pilot test of digital death certificate in one of the hospitals of the CCSS, and which is in the evaluation period to be implemented in all public health centres.

3.2.7. Overall assessment of the Population and Housing Census

457. From a statistical point of view the census process (collection, compilation and dissemination) as undertaken by INEC looks solid and broadly in line with practices in OECD

Members. While the Law No. 7839 did not give INEC the right to oblige respondents to complete the census questionnaire, the new Statistics Law strengthens the mandate for data collection and obliges respondents to provide the requested information (Article 16), and to do so with the assurance that privacy will remain protected (Articles 20-23). The implementation of the amended law therefore enables INEC to ensure that response rates remain high and thus improve the quality of the information collected. The adoption of the amended law No. 9694 represents a significant progress in the mandate for data collection. The implementation of the amended law ensures that response rates remain high (response rates are usually above 90%, with 93.8% in 2011, 93.1% in 1984, 97.7% in 1973, 93.6% in 1963 and 90.2% in 1950).

458. During the review process, INEC produced and disseminated metadata and methodological information on the population census and births statistics in English and made available the census questionnaire in English on its website.

459. INEC started planning the next population and housing census, initially scheduled for 2020 but postponed to 2021 on government's decision, on the basis of financial difficulties. In respect of Article 34 (f) of the Law No. 9694, INEC is responsible for conducting the population and housing census with a maximum period of ten years between two successive censuses.

460. Noting that population estimates are fundamental statistics (particularly given that population is a denominator for many important indicators) and were produced infrequently in Costa Rica, i.e. only after a Census, the reviewers strongly recommended in 2017 that Costa Rican statistical authorities establish an active work program to produce at least annual population estimates that are not projections. INEC has since established a working plan for the period 2018-2024, with the support of the CELADE and the United Nations. The purpose of this project is to replicate the methodologies used by CELADE with the aim to calculate population estimates and projections based on the results of the 2021 population and housing census, and to establish a methodology for monitoring and calculating annual population projections. In addition, INEC established a working plan for 2019-2023 to create and maintain a Statistical Population Register (REP) to collect reliable information on population characteristics. This project requires access and use administrative records, and the Law No. 9694 will be instrumental here. Experts from IDB and OECD Members (Sweden, Denmark) have started to provide INEC with technical assistance.

3.3. Agricultural Census

3.3.1. Background

461. The Food and Agricultural Organisation of the United Nations (FAO) is recognised as the lead international organisation for agricultural censuses. A system of integrated agricultural censuses and surveys, Volume 1, World Programme for the Census of Agriculture 2020, is considered the accepted international standard for undertaking agricultural censuses for the 2016-2025 round.

462. A census of agriculture is the statistical operation covering the collecting, compiling, analysing and disseminating of data on the structure of agriculture in the whole country. An agricultural census is an essential part of the statistical infrastructure of a country, providing a clear view of the agricultural situation in the country, a sampling frame for agricultural based sample surveys and providing the basis for an integrated agricultural system.

463. Typical structural data collected in a census of agriculture are size of holding, land tenure, land use, crop area harvested, irrigation, livestock numbers, labour and other agricultural inputs. Data are normally collected directly from the agricultural holdings and normally involve

collecting key structural data by complete enumeration of all agricultural holdings. Undertaking an agricultural census is costly for a national statistics office, with the FAO encouraging national statistics offices (NSOs) to undertake a census at least every ten years (the current round being the 2016-2025 round). However, understanding the cost and the burden on NSOs (as well as respondents) the FAO (WCA) methodology recommended methodologies (World Programme for the Census of Agriculture (WCA), WCA 2010 and WCA 2020) to move towards a modular approach (for the census survey and questionnaire) to try and ease some of these resource constraints.

464. Agricultural planning and policy-making present broad statistical needs, a census of agriculture provides fundamental data on the structure of agricultural holdings, such as farm size, land use, land tenure, livestock numbers, and the use of machinery, as well as the number of holdings with each crop and livestock type. INEC state that the goal of their agricultural census was to provide the country with basic, reliable and meaningful information on situation for agriculture in Cosa Rica. In turn strengthening the country's technical capacity to formulate plans, programmes and tools for development and for researchers to analyse the data and provide policies that are designed to improve the efficiency and effectiveness in this sector.

465. The agricultural and livestock census in Costa Rica is governed through the Article 34 (f) of the amended Law No. 9694 which instructs INEC to conduct an agricultural census every ten years (Article 15 of the Law No.7839 required that INEC undertakes an agricultural and livestock census every five years).[39]

466. Additionally, Law No. 9071 mandated that the Ministry of Agriculture and Livestock (MAG, its acronym in Spanish) to undertake an agriculture census in 2014. Article 2 of the Law No. 9071 stated that: "the Ministry of Agriculture and Livestock shall conduct an agricultural census. For such purpose, the Ministry of Tax shall provide the necessary funding". For INEC, the Law No. 9071 was essential to conduct the census in 2014, but does not give MAG the legal basis for doing so in the future.

467. In Costa Rica, the sixth and most recent agricultural census was conducted in 2014, after a 30 year lapse. Previous agricultural censuses had been organised in 1950, 1955, 1963, 1973 and 1984. Unlike for the previous agricultural censuses, the 2014 agricultural census was carried out independently of the population and housing census. The 2014 census was conducted by INEC with participation from the MAG and various other Costa Rican agricultural organisations. It was funded directly by central government (approximately 11 million US dollars). The 2014 census was conducted in accordance with the FAO *World Programme for the Census of Agriculture 2010* (WCA 2010), the international standard for undertaking agricultural censuses for the 2006-2015 round.

468. The 30-year lapse was mainly due to three reasons: financial, political and technical. A census was scheduled to be undertaken three times in the nineties, however each time, and after preparations had begun, each census was cancelled mainly as a result of financial considerations (and a lack of political will). There was consideration of undertaking an agricultural census with the 2000 population census; however technical issues were raised in connection with such a simultaneous execution. INEC planned therefore to undertake the agricultural census within a year of the 2000 population census, however there was no political will to allocate the resources to make this happen.

[39]The Spanish term is "Agropecuario", meaning "Agriculture and Livestock". In this report, the term "Census of Agriculture" means "Census of Agriculture and Livestock".

469. At the time of the review, it was uncertain when the next agricultural census would be undertaken. However, given the clear intention expressed by INEC to create an integrated system for agricultural statistics, a census on agriculture represents a key input for such system and needs to be conducted regularly. In that respect, it is expected that the frequency of ten years between two successive censuses required by the Law No. 9694 (Article 34f) will be observed.

3.3.2. Coverage

470. The 2014 census saw all farms in the country enumerated, undertaken by field work in areas identified as having agricultural units and with all properties geo-referenced. At all stages, the design of the census followed the FAO WCP 2010 recommendations. The questionnaire covered all structural variables, such as the use of the land but did not include 'temporary variables' e.g. production and prices.

471. The following subject areas were covered in the 2014 census: general aspects of the producer and farm (producer status, farm's main purpose, geographical location, name, etc.); use and land tenure; agricultural crop area; cattle and pigs stocks by age, sex and main purpose; horses and other minor species; aquaculture and forestry activities; employment; participation by gender; use of fertilizers and pesticides; presence and type of irrigation; use of machinery and equipment; agricultural support services; and environmental conservation practices.

472. The definition of the subject areas followed those in the FAO WCA 2010, consideration was also given to experiences from other countries who had recently undertaken agricultural censuses and additionally national needs that were expressed for meeting specific agricultural requirements. The survey reference period for respondents was the days of their interview and, when appropriate, the agricultural year was used.

473. The 2014 census involved three stages: pre-census, census and post-census. The main pre-census activities were undertaking user consultation, designing the technical documents e.g. questionnaire, documentation for the enumerators and their supervisors, classifications, etc., preparing maps for use in the field and undertaking a pilot agricultural census. The questionnaire itself contained 10 chapters, with 210 separate items sought (making it 16 pages in length). There were 2 200 census staff in the field (coordinators, area supervisors, reviewers and enumerators), covering more than 93 017 rural properties. The official collection process took place from 2 to 30 July 2014. After the census stage, the post census stage involved data entry, questionnaire completion reviews, mapping, coding (ISIC Rev.4) and validation. The project started in April 2014 and ended in 2015.

474. Dissemination included the following outputs:

- General results of the National Agricultural Census 2014, summarising the results of the main variables of the research at a national level. The results were presented during a press release that took place in May 2015.
- Three "Census Books" published in July 2015:
  - Book I. Characteristics of the farms and of the producers.
  - Book II. Agricultural, forestry and ornamental crops.
  - Book III. Livestock activities, practices of agricultural and livestock services.
- An application developed for smartphones to enable users to access the census information.

- Statistical Atlas. This document presents maps for each of the different variables disaggregated at canton level. The information in the maps is complemented with graphics and short commentaries broadening the variables description.
- User training. As part of the dissemination process, a training procedure was developed and conducted for users at a national level. Approximately 30 meetings have taken place to present the results, possible use of the information and a procedure to discuss the data.

475. As regards the dissemination of micro-data, INEC received the support of the Statistics Institute and Ministry of Agriculture of Chile in order to anonymise the data. However, the process is not completed at the time of writing this report and INEC requested the cooperation of the FAO within the AGRISurvey project to organise in 2019 training sessions on the anonymization, conservation and dissemination of microdata from agricultural surveys and censuses. In the meantime, the INEC's dissemination policy applies to the agricultural census and allows the NSO to deliver information under a confidentiality agreement.

3.3.3. Compliance

476. For the 6th national agricultural census of 2014 the starting point was the FAO World Programme for the Census of Agriculture 2010 (WCA) methodology. Given the length of time since Costa Rica last undertook an agricultural census, the FAO provided direct assistance to INEC through technical advice by a consulting expert.

477. The WCA recommends 16 core items (referred to as module 1). These are: identification and location of agricultural holding; legal status of agricultural holder; gender and age of agricultural holder; household size; main purpose of production; area according to land use types; total area; land tenure types; presence of irrigation; types of permanent and temporary crops; number of animals for each livestock type; presence of aquaculture on the holding; presence of forest and other wooded land; other economic production activities of the holding's enterprise.

478. INEC has confirmed that all of the suggested main subjects, as well as other suggested supplemental questions, were included in the census (adapted to the country's' conditions). New and noteworthy subjects such as gender, environment and forestry were also collected.

479. The manual of the interviewer of the agricultural census was translated into English, currently working on the translation format to upload it to the website in 2019.

3.3.4. A System of Integrated Agricultural Censuses and Surveys

480. The 7839 legal act, article 15, subsection c), states that INEC shall produce national statistics, including "…agricultural surveys…" and this function is also included in Article 34f of the Law No. 9694.

481. Over the recent years, INEC focussed its efforts to implement a system of integrated agricultural censuses and surveys. Despite a slow process, progress has been made and the following milestones have been reached: 1985-86 and 1988 national agricultural survey; 2000-01 sampling frame for agricultural areas; 2003, 2004 and 2006 census of coffee production (undertaken and funded at the initiative of the Costa Rica Coffee Sector due to the absence of data); 2010, 2013-14 farms and agricultural establishment directory; 2011-16 Quarterly Survey of Area and Agricultural Production (ETAPA, its acronym in Spanish); and 2017 National Agricultural Survey (ENA, its acronym in Spanish).

482. In January 2014, INEC took over control of the quarterly ETAPA survey from the Ministry of Agriculture and Livestock (after its decision to stop undertaking the survey that he

conducted since October 2011). However, the quality of the data collected from 2011 to 2013 being unsatisfactory, the official time series start in 2014.

483. INEC conducted the quarterly ETAPA survey in January, April, July and October until 2016. The collection was carried out during a whole month, with a response rate of 95%. The sampling frame was a multiple framework (probabilistic, stratified) created between 2000 and 2001 with approximately 900 farms surveyed each quarter distributed throughout the territory of Costa Rica. About 25 agricultural products are surveyed (covering about 90% of all agricultural crop production and more than 50% of total agricultural production (i.e. including livestock)). The survey includes production and price variables.

484. Based on the results of agricultural census 2014, a sampling frame that reflects the changes in the country's productive structure was elaborated. The framework is multiple (probabilistic, stratified). The ETAPA was redesigned, in addition to agricultural production, other activities of productive importance were included such as cattle and pigs, forestry activities and flowers. The new redesigned survey is the ENA, which was first implemented in 2017, its temporary coverage includes from January 1 to December 31. It has a national geographic coverage for the 39 activities investigated. The data collection is done according to the productive cycle of the crops and their seasonality. For livestock, forestry and flowers, the collection is once a year. The sample size is 11 379 farms.

485. The 2014 agricultural census and the implementation of the ENA survey give INEC with the opportunity to implement a solid system of integrated agricultural censuses and surveys. To this end, INEC and the Ministry of Agriculture are jointly developing a project, with the technical and financial support of the FAO Statistics Division, to introduce in 2019 some complementary modules that allow gathering the necessary information to calculate key indicators of the agricultural sector, such as productivity or profitability. INEC and the Ministry of Agriculture propose to use the methodological framework provided by the system of Integrated Agricultural Surveys (AGRISurvey), developed by the FAO, which consists of a modular program of multiannual surveys based on agricultural holdings. AGRISurvey is conceived as an effective and lower cost way to accelerate the production of high-quality data related to the technical, economic, environmental and social dimensions of agricultural holdings.

3.3.5. Overall assessment of Agricultural Census

486. Much like the population census, the agricultural census appears solid from a statistical viewpoint and in line with international practice. The technical assistance from FAO and other statistical organisations in the region strengthens this position, as does the expertise apparent in INEC. The recent implementation of the National Agriculture Survey (ENA) is a positive step towards strengthening the system of integrated agricultural censuses and surveys. For INEC to have a fully functioning system of integrated agricultural censuses and surveys there needs to be both a regular agricultural census cycle (10 years is the international norm) and more investment in providing users with a full picture of the agricultural sector in Costa Rica between censuses. This was alluded to by INEC in the new National Agricultural Statistics Programme.

487. The legal infrastructure underpinning the agricultural census was clarified by the adoption of the amended Law No. 9694. The Law No.7839 instructed INEC to undertake every five years agricultural censuses while the Law No. 9071 instructed the Ministry of Agriculture and Livestock to undertake a census in 2014 (which was actually undertaken by INEC), some thirty years after the previous Agricultural Census. The role to conduct agricultural censuses should clearly reside legally with INEC, with the support of the Ministry of Agriculture and other organisations in the agricultural sector. It is very welcome that the amended Law No. 9694 instructs INEC to undertake the agricultural census every ten years (and not five as before).

3.4. Statistical Business Register

3.4.1. Background

488. A business register is an essential part of any NSS, providing the sampling frame for economic surveys, the core basis of economic statistics and 'business statistics' (covering topics such as entrepreneurship, and business demography). It is therefore of fundamental importance that a country has an exhaustive business register to aid in the compilation of economic statistics, both short-term indicators and structural economic developments.

489. The introduction of business statistics has increased the need for business registers and turned the register into a provider of statistical data itself. Additionally, globalisation has given rise to new requirements for information on the structure of enterprises and with the rapid growth in the internationalisation of enterprises, namely multinational enterprises, new data requirements have emerged that can only be met through business registers.

490. Good business registers allow surveys to be distributed more effectively and economically between various enterprises (thus reducing respondent burden) and, by the use of the same information for different purposes, the total amount collected can be reduced. Good registers also allow for efficient structural changes that would allow for the register to meet new data requirements from users and the international community.

491. To ensure international harmonisation, the OECD encourages national statistics offices to follow the recommendations as outlined in the Eurostat "Business registers; Recommendations manual, 2010 edition". While the manual is directed at national statistics producers in the European Union, for example with the legal structure determined by European Commission regulations, the core recommendations could be applicable to all national statistics offices. In this regard, the Eurostat manual sees five core areas of harmonisation:

- definition of units – three units are seen as mandatory, namely the enterprise group, the enterprise and the local unit (all of which are defined in Regulation (EEC) No 696/93);
- coverage – all enterprises (and associated legal and local units), enterprise groups (e.g. multinationals) and all-resident enterprise groups that are active in the national economy, in other words contributing to GDP;
- updating – the business register needs to be updated regularly enough to ensure that it accurately reflects the situation in the country (and at least annually);
- characteristics – while Regulation (EC) 177/2008 provides a full list of all the mandatory variables required in a business register, characteristics that should be considered include a unique identifier for each unit (a common identifier across all administrative databases is best), time stamps, activity status, size measures (value added, employment etc.), and ownership control (e.g. majority ownership (over 50%), and SPEs); and,
- quality – all measures should be taken to ensure the quality of the business register including the undertaking of quality reports (reviews).

492. At the time of the review in the Costa Rica NSS there were two statistical business registers, one maintained by INEC, the Register of Enterprises and Establishments (DEE, its acronym in Spanish), and one maintained by the BCCR, the Register of Economic Variables (REVEC, its acronym in Spanish). The General Cooperation Agreement between the BCCR and INEC, signed and brought into force in 2008, saw the BCCR provide funding to INEC for the

project "Directory of Institutional Units and Establishments". The objective of the project was to provide a sampling frame of economic units that included variables such as identification, economic activity (ISIC), location and the number of workers; and to assist with the design and undertaking of economic surveys.

493. Legally, INEC maintains DEE under its NSS act, Law No.7839 of 1998. Specifically articles 4, 13 b) and f), and 14 give INEC the right to create and update a business directory, collect the necessary data from all agencies of the NSS, and more generally collect information in accordance with the 7839 law. Currently, Law 7839 does not give INEC the authority to demand statistical information from the entities, however, with the new legislation on statistics (Law No. 9694) in process for approval by the Legislative Assembly of Costa Rica in 2019, it is expected that this problem would be solved. The BCCR legal situation pertains to article 40 of the Bank's Organic Law allowing it to collect data from government agencies (including the tax records). No clear right to collect data from legal persons exists in this legislation.

494. Every year, in accordance with the original agreement between the BCCR and INEC, the BCCR receives INEC's full business register (the DEE) from INEC which it then uses, along with other sources, to update the REVEC. At the beginning of the review process, there was no feedback from the BCCR to INEC, because the BCCR is bound by legal confidentiality requirements. In October 2018, BCCR sent INEC a first REVEC's subset of variables that it was allowed to share, and in February 2019, this data was complemented with information on employment by economic activity. The adoption of the Law No. 9694 allows the development of data sharing between the institutions of the NSS and avoid any duplication.

495. At an international level, INEC has participated in numerous events/seminars and training courses on statistical business register, in particular those organised by INEGI (Mexico), INE-Spain, UN-ECLAC (CEPAL, its acronym in Spanish), UNCTAD, UNSD, and DANE-Colombia.

3.4.2. Coverage

a) DEE

496. The DEE is a structured register of all national (resident) units of the private sector engaged in production (goods and services) excluding: farms, lots or plots where agricultural activities are conducted; government institutions; own-account hauliers; overseas organisations; and housing where there is no evidence of economic activity for commercial purposes. It was developed in 2008[40] in response to needs for better economic statistics in Costa Rica (in particular to provide sampling frames for economic surveys) and to address needs for information on business statistics (business demographics, births, deaths and other business dynamics). The initial DEE was established via two processes: (1) a full census ("field sweep") of 39 districts (which account for 52% of all firms in Costa Rica); and (2) the remaining 434 districts having their firm details established from administrative records. The database itself is maintained in a SQL server (designed using CS-PRO) with the development framework being .NET. Staff use both SQL (Visual Studio) for updating and SPSS for queries.

497. INEC updates the DEE annually via a combination of surveys, follow-up phone calls and administrative records. In addition, census of enterprises in specific districts can be organised if necessary. Enterprises are also updated with new information collected via the quarterly National

[40]A business register was created by INEC in 1990 from a census survey, however as it was never updated it quickly became obsolete.

Survey of Enterprises (ENAE[41], its acronym in Spanish), the National Survey of Job Positions and the Consumer and Construction Price Index Surveys. Additionally, each year approximately 40% of enterprises are phoned to confirm their business register details – including all new enterprises identified in the year. Most of the new enterprises are identified from administrate records received by INEC, such as: the Social Security Agency[42]; the MdH (list of major tax paying firms, data collection started in 2012, some income data is also provided but for internal use only); the Trade Promotion Agency (list of exporting firms and those operating in Costa Rica's free zone regime area); National Registry (list of all incorporated firms); and the Electoral Authority (non-incorporated firms). However, INEC does not have access to the Tax Register and it is highly expected that the implementation of the Law No. 9694 enables to overcome this issue.

498. Each enterprise in Costa Rica has a unique identifier based on their *national* number (9 digit personal number *cédula física*, and a 10 digit enterprise number *cédula jurídica*), this also serves as their tax number. The *cédula jurídica* is a ten digit code where the first four digits identify the legal form, e.g. a cooperation, an association, a cooperative, a foundation, a foreign enterprise, etc. There is an issue here of enterprises often using several different identification numbers requiring INEC to filter and quality control for. The basic structure in the DEE is: Group > Enterprise > Establishment (geographical location). In Costa Rica an enterprise may have more than one 'legal unit', and it is the legal unit which controls the kind-of-activity (KAU or establishment).

499. The DEE contains a reasonable number of variables for each enterprise, plus additional variables for secondary activities at the same location and for the establishment. As well as the usual variables e.g. name, address, contact details etc., the DEE also holds information on number of employees, activity (ISIC Rev.4), exporting/importing identifier, and foreign branches. Cross referencing with mandatory fields as outlined in the Eurostat recommendations, the following variables seem to be missing: links with other registers, control of units, number of employed persons (the DEE only includes employees, i.e. not self-employed, etc.), turnover, institutional sector (as per SNA08), and enterprise group information e.g. foreign controlled.

500. The Cartographic Unit of INEC provides detailed mapping across the country through the "Minimum Geo-statistical Unit" (UGM in Spanish), defined as the minimum territorial division of the country (polygon) that surrounds a limited area. Geo-referencing of companies is done within an UGM, ensuring an approach to the geospatial location of the companies in the country. In INEC this is referred to as the "*Digitalisation of enterprises and establishments*" and consists of the location of the geographical coordinates of the enterprises and establishments on a digital map, for the representation of statistical information. The geo-referencing process for DEE started in October 2015 and was initially expected to be completed by 2017.[43] However, it was not completed due to lack of resources.

501. INEC undertakes a number of quality control measures when adding new enterprise units into the DEE, these include correcting and excluding out of range data, updating classifications (ISIC Rev.3 to 4), excluding records with missing data, validating identity numbers, ensuring the

[41]The purpose of ENAE is to gather information on the labour market. The quarterly survey asks questions on the number of employees (including gender), wages, hours worked, contract type, economic activity and occupational group.

[42]Social Security System Record (CCSS). A monthly record of payrolls (names of workers, salaries and economic activity). Information is also included on employers, independent workers and unions.

[43]In March 2017, 57% of the total number of registrations of the geo-referencing project for the DEE was carried out.

business has a unique identity number, and removing units outside the set criteria (mostly this involves removing government units). Additionally, data quality is also verified via phone calls, and furthermore, coding of economic activities is evaluated on a monthly basis.

502. INEC disseminates annually in March a bulletin (in Spanish only) based on DEE data. The bulletin includes: enterprise counts by economic activity, size, employees and geographical area; changes in the 'most important' variables; employment generated from new enterprises; and DEE documentation. INEC is also looking to undertake work on survival analysis of companies. INEC does not make the full database available to users. However it can, according to its "Policy on Statistics Dissemination and Micro-data Delivery" sell representative samples of primary sampling units which include variables of interest and the corresponding maps. In this regard, INEC has agreements with the Ministry of Communication, Science and Technology (information exchange), the University of Costa Rica (for the Business Expectations Survey), Trade Promotion Agency (Export Census) and the Ministry of Economy, Industry and Commerce (for the creation of SME indicators).

503. INEC conducted a review of the UN-ECLAC's "Compendium of Technical Recommendations and Best Practices for Preparing Directories of Enterprises and Establishments", published in November 2013 with the purpose of evaluating which "best practices" were being implemented and which were not for their eventual incorporation. The compendium, funded by the Regional Public Goods Program of the Inter-American Development Bank (IDB), has the general purpose of presenting, in a systematised way, the common framework of shared concepts and definitions and the set of technical recommendations and best practices identified for the creation, updating and ongoing improvement of directories of enterprises and establishments. The compendium references Eurostat's work and the relevant EC (and EEC) regulations.

b) REVEC

504. The BCCR has direct access to tax information supplied by the Internal Revenue Service (Dirección General de Tributación Directa), this, along with the employment records provided by the Costa Rican Social Security Agency, the companies identifications delivered by the National Registry, and the yearly data transmission from INEC's DEE, provides the BCCR a cornerstone of its business register. In addition, the BCCR uses a diversity of sources with relevant administrative data from a large range of government agencies, including for example the Institute of Coffee, Ministry of Culture, Ministry of Health, Ministry of Foreign Affairs, Trade Promotion Agency, etc. The BCCR uses data from the National Registry for its business demography and for quality control of the legal identification number of companies.

505. Internally the BCCR updates the REVEC (on a rolling basis) using this new information sourced from monthly administrative records received from other institutions, and using its many economic surveys (e.g. Monthly Survey of production by economic activity; Semi-annual Survey of Performance and Business Perspective; Economic Survey to Companies; etc.), telephone calls, email enquiries and information from the internet.

506. The REVEC unit structure is: corporate group, enterprise group, enterprise or institutional unit and kind-of-activity unit (KAU). All units have the same list of variables attached and the REVEC itself is spilt into three databases – one which contains variables about the actual unit (location variables); one which contains descriptions of the variables, like ISIC codes; and the last one which contains size variables, namely quantitative information on the legal units.

507. The REVEC contains a good list of variables for each unit which seem to cover most of the core required variables needed for a strong business register. Main variables included in the

REVEC for each unit are: contact details; identification numbers' type which allow for group identification; other administrative identification numbers; number of workers per legal unit by economic activity (however this cannot be broken down into employees, own-account workers, etc.); institutional sector; ISIC Rev.4; number of KAUs by institutional unit; proportion of income by economic activity; foreign ownership (including country); import/export values; revenue (as reported for sales tax and for income tax); size variable (based on a combination of employment and income); changes to legal status (e.g. merger); and geographic location indicator.

508. The BCCR ensures that quality is controlled within the REVEC through a number of measures, including: users being consulted about their requirements (relevance); correlations between related variables (accuracy); checks to other sources where discrepancies are analysed; removal of duplicates; and, the percentage of coverage of the companies included must exceed 93% of the reported income and 100% of the registered employment (coverage).

3.4.3. Compliance

a) DEE

509. The DEE contains a wide selection of variables essential for a business register which are updated regularly via range of methods, including surveys, direct contact with businesses and administrative records. In regards to classifications, enterprises are coded according to ISIC Rev.4 for business activity to a six digit level (however, the fifth and sixth levels relate to INEC's own classification based on ISIC).

510. INEC sees quality as very important for its business register and attempts to ensure that all possible updates are verified. While the DEE isn't available directly to the public, INEC can provide users with customised sampling frames to meet there needs.

511. While the DEE does not exclude informal sector enterprises, it is very difficult to find these businesses in the administrative records of public institutions (which is normal) and so records of micro-establishments of the informal sector are mostly obtained through field work (depending on these businesses having a fixed structure). This can be very time consuming and resource intensive work for INEC.

512. In 2012, a census of enterprises was held in the district of Tres Rios and in 2014 it was decided to conduct a census of all businesses in this district again in order to compare the dynamism of economic units and reflect changes in business growth during the period 2012-14, i.e. surviving firms, inactive companies, changes in the characteristics of the companies, start-ups, etc. Among the results, from companies that were collected in 2012 but which were not found in 2014, 87% were located in the range of 1-5 workers; of which 43% are companies of 1 worker, 34% of 2 workers, 15% of 3 workers, 6% of 4 workers and 2% of 5 workers. This reflects similar trend behaviours of previous censuses, as this type of business (micro-establishments) are the most dynamic.

513. Additionally, the National Survey of Households as Producers (ENHOPRO) collects information on employers' households or self-employed workers, not occasional, whether registered or not in a public authority as producers of goods or services (informal sector of the economy).

514. At the time of writing this report, the DEE only includes economic units from the private sector resident in Costa Rica and their establishments engaged in activities producing goods and services. Government institutions, such as public schools, state institutions, public hospitals, etc., are not included. When the DEE was established in 2008, the integration of government institutions (the public sector) into the DEE was already considered but it was then decided to

postpone it as the development of the register evolves. A preliminary proposal developed in 2017 to assess the feasibility of adding the public sector to the DEE, concluded that availability and quality of public data sources (i.e. administrative data) did not allow this integration. As the Law No. 9694 would strengthen the capacity of INEC to access and use administrative data, INEC is highly expecting being able to create in the near future a Register of Economic Units, which would include both the public and private sectors.

515. The DEE includes some variables to understand the behaviour of the economic units over time:

- Activity start year: Follows the year in which the legal unit began operating, if a company changes its business name this date is modified without holding the previous record.
- Interview date: The date the company entered into the database of the DEE.
- Date of last modification: The date when the information of the company was last updated.

516. There is no variable associated with the date of cessation of production activities i.e. when the company is idle. A record is kept of the companies that are no longer part of the DEE. As the process of updating the database is continuous there are annualised databases created, allowing for the creation of business statistics and measures of change over time. This is done at the end of each year when a copy of the DEE is created and in 2018, annual copies were available for the period from 2008 to 2017 (excluding 2009 which is missing).

517. In 2008, when the INEC business register was created, it held 45 888 enterprises and 6 779 establishments, the most recent count (year 2018) shows 35 429 enterprises and 11 600 establishments. Additional registers (municipal patents, mergers of companies, social security, electoral authority, among others) have been gradually incorporated into the DEE.

b) REVEC

518. The REVEC is used by the BCCR for economic research, to respond the requirements from other institutions, joint work with international universities and to provide samples for undertaking economic surveys, in particular balance of payments and national accounts. The register uses ISIC Rev.4 and institutional sectors according to SNA08 for enterprise classifications. BCCR coding has been developed to allow grouping or disaggregating of ISIC Rev.4 classes, according to the following criteria: the importance of economic activities in Costa Rica; and availability of the information received. Two additional digits are also used in order to identify particular situations (the unit produces only for its enterprise group, it is an occasional unit, it is a unit used to administer the payroll of another unit, it is a development real estate unit that besides construction buys the land, etc.).

519. This classification allows the BCCR to know the overall enterprises by economic activities according to the 419 classes of ISIC Rev.4. Departing from the original four digits in ISIC Rev.4, two digits have been added to record twelve activities that are important in the country (this is undertaken by INEC).

520. The BCCR does not consider that it builds a business register, but that it complements INEC's register (the DEE) with additional economic variables, additional statistical units and analysis of consistency in order to use it for its statistical purposes. In essence, the BCCR complements the DEE with economic variables in order to produce a business registry linked to economic units at an economic activity level (DEE links economic units at an establishment level).

The REVEC also contains the establishments (KAUs) associated with the legal units, for which it includes their economic activity, number of employees and relative importance. The BCCR does this using administrative sources (namely tax records and Social Security Agency records), which legally INEC currently does not have access to. The BCCR consider the REVEC as only for internal use and to meet other institutions requirements regarding aggregated figures that do not violate the statistical units' confidentiality.

3.4.4. Overall assessment of the Statistical Business Register

521. From a statistical standpoint, both the DEE and the REVEC seem able to meet the needs of both organisations, mostly in line with international recommendations and comparable to business registers of other OECD countries.

522. However, there is the question why there are two business registers in the first place and whether this is an efficient arrangement. In 2008, the BCCR provided INEC with resources to create a business register (the DEE) with the agreement that INEC then provides the full DEE to the BCCR. The BCCR takes the DEE and enhances it with additional economic variables to create the REVEC. The flow of information is only one way (INEC to BCCR) with the BCCR considering that the REVEC is only for internal purposes, and no feedback on the quality of information in the DEE is provided. Another reason is that INEC is legally prevented from accessing tax records (from the MdH) and payroll data (from the Social Security Agency). The same restrictions do not hold for the BCCR where the Central Bank Law grants special permission to the BCCR to access these data. The reviewers find this an unsatisfactory situation. The implementation of the Law No. 9694 improves significantly the situation by enhancing access to administrative data and data sharing.

523. INEC is working with the MdH to access more of the data without breaking the Tax Code. However, a more open and permanent solution should be sought. The same applies regarding access to data from the Costa Rican Social Security (CCSS), which should be regulated through legal means and not by an agreement between two institutions, which seems to depend on interpersonal relationships. Again, it is expected that the implementation of Law No. 9694 will be instrumental in solving this issue and improve information sharing that should ultimately pave the way for a single national business register. Costa Rica is strongly encouraged to consider merging DEE and REVEC and the resulting statistical business register should be completely shared, maintained by INEC in order to avoid duplication, and be used by both organisations as the main statistical framework for surveys.

524. In 2017, the reviewers recommended that INEC receive feedback from the BCCR in regards to quality issues with the DEE and updated variables, such as secondary identification numbers, number of employees, economic activity, etc., subject to the condition that feedback ensures that it does not break the confidentiality agreements that BCCR has with the MdH and CCSS. In 2018 and 2019, the BCCR provided a subset of REVEC to INEC to improve the quality of information.

525. Government units are missing in the DEE and the reviewers strongly encourage INEC and the BCCR to develop a proposal for their integration, along with any resource implications or further legal requirements. To this end, INEC proposed in 2017 the development of a Public Sector Directory but postponed its implementation due to the limited access to public data sources with the required quality. The new law on statistics should allow INEC to overcome this issue, both with regard to access and quality. The reviewers consider that the involvement of the MdH in this process is crucial and should be formalised, for example through a specific agreement.

3.5. International Standards and Classifications

3.5.1. Background

526. International classifications and their appropriate use represent a fundamental pillar in ensuring comparability and in improving the quality of data at both the national and international level. The OECD is a large collector of national data, across a vast array of subject areas and statistical fields. The only way in which this body of statistics can make sense and be useful at the international level is adherence to international classifications. For Costa Rica to become a part of the OECD data collection programme, and imbedded in OECD datasets, it will need to demonstrate that its official statistics adhere to international classifications.

527. In this sense, it is not just INEC and the BCCR which need to display adherence to international standards and classifications, but the whole NSS and all official statistics disseminated in Costa Rica. It should be noted that in recent years international classifications for a large majority of economic statistics have been updated e.g. ISIC Rev.3 to Rev.4, and COICOP in 2018.[44] The ability to implement the new classifications while ensuring quality, series length, comparability etc. are maintained is also critical for the NSS (NSS).

528. The NSS Law No. 7839 provides a number of references to standards and classifications. Foremost, INEC is deemed the governing body of the NSS (article 2), and therefore is responsible for ensuring that the other producers of official statistics follow international classifications as stipulated by INEC (article 3). In this regard, article 3 states that all agencies of the NSS "shall apply the same standard system of concepts, definitions, statistical units, *classifications*, nomenclatures and codes that enable the comparison, integration, and analysis of data and results. For this purpose, INEC shall issue the relevant technical regulations." Article 13a) and 22a) further outline INEC's role in defining and establishing standards and classifications to be used in the NSS.

529. Like most national statistics offices and producers of official statistics, INEC implements international classifications either by 'Adoption', (using the international classification following its original structure), or 'Adaptation' (adapting the international classification to its national needs). The bottom line for the OECD is the ability for the country to provide statistics as requested, therefore if a country decides to adapt an international classification this isn't an issue as long as it can still supply the required statistics by the requested classification (i.e. this will normally require the country to have relevant conversion tables).

530. According to INEC, it has been working to achieve the implementation of international classifications both internally and for the NSS since its creation and as per the law. A Presidential Decree (No.38715-PLAN[45]) issued in 2014, which instructs the NSS, in close cooperation with INEC, to explicitly implement *Clasificaciones de Ocupaciones* (COCR-2011) *y de Actividades Económicas de Costa Rica* (CAECR- 2011) [International Standard Classification of Occupations (ISCO) and the International Standard Industrial Classification of All Economic Activities (ISIC)] has seen a measured improvement in the national implementation. The improvement has been visible in NSS agencies in implementing these classifications and has also helped INEC exert its

[44] https://unstats.un.org/unsd/classifications/unsdclassifications/COICOP_2018_-_pre-edited_white_cover_version_-_2018-12-26.pdf

[45] http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=78529&nValor3=98980&strTipM=TC

legal obligation to ensure that all agencies in the NSS are using (adopted or adapted) international classifications.

531. In 2009, INEC created an Internal Commission of Statistical Classifications with the objective to support the implementation of new versions of international classifications in the statistical operations in the NSS in order to ensure the production of harmonised official statistics. The commission is composed of three INEC units (household surveys, business directory and economic statistics) and focused on the classifications ISIC and ISCO. At the time of writing this reports, INEC is working on a proposal for the creation of a commission on classifications that would include other members of the NSS. The adoption and implementation of the Law No. 9694 reinforces the authority of INEC on the implementation of classifications and brings an opportunity to further develop the commission. INEC has also participated in the UN- ECLAC *Working Group on International Classifications* whose general objective is to support countries in the adoption or adaption of new versions of international classifications. The group has met seven times, in 2012 (Chile), 2013 (Mexico), 2014 (Colombia), 2015 (Costa Rica), and 2016 (Panamá), 2017 (Cuba), and 2018 (Brazil).

532. INEC released in 2016 a webpage that provides standards and classifications, explanatory notes, correspondence tables and a search facility[46]. In the first semester of 2016, INEC published the adaption of the Standard International Trade Classification (SITC Rev.4), available on the official website of INEC[47].

3.5.2. Coverage

533. The International Standard Industrial Classification of All Economic Activities (ISIC Rev.4) has been adapted by Costa Rica (CAECR 2011). According to INEC, the adaptation begins at the fourth digit which corresponds to a disaggregated 'subclass' fifth digit. Therefore, the CAECR 2011 is compatible with ISIC Rev.4 down to the fourth digit[48]. The CAECR 2011 is used in the main statistical operations, including national accounts, the last population and housing census, and the census of agriculture. The BCCR moved to CAECR 2011 from 2016 onwards as part of the move to SNA08 for national accounts. Many other agencies within the NSS are using CAECR 2011 or ISIC Rev.4. A few government agencies, and, in particular, the Social Security Agency, are still using past versions, mostly commonly ISIC Rev.2 and ISIC Rev.3. A conversion table between ISIC Rev.4 and CAECR 2011 is made available in Excel to all users and can be downloaded from the Classification System available on the NSS website.[49]

534. The *Central Product Classification* (CPC Rev.2) has been adopted by Costa Rica, and is closely linked with Costa Rica's national product nomenclature [NPRC]. The CPC classification is used in annual and quarterly national accounts, producer price indices, and indexes of production and demand. For the NPRC, each product in CPC Rev.2 is assigned to one of the 183 products in the NPCR (chosen according to the relative importance of each product within the national economy).

[46] http://www.inec.go.cr/sitiosen/sitiosen/

[47] http://www.inec.cr/sites/default/files/documetos-biblioteca-virtual/meclasificacioncuci.pdf

[48] INEC state that they have a conversion table (ISIC Rev.4 and CAECR) which will be released in 2016 and they provide documentation (in Spanish) on the website detailing the national classification.

[49] http://sistemas.inec.cr/sitiosen/sitiosen/FrmComparativa.aspx

535. The *International Standard Classification of Occupations* (ISCO 2008) has been adapted by Costa Rica (COCR 2011). The adaptation includes situations where important minor groups from the occupational structure of the country are incorporated into this structure. The COCR 2011 was used in the 2011 census of population and housing.

536. The *Classification of Individual Consumption by Purpose* (COICOP 1993) has been adopted for the CPI base 100 in June 2015 and the COICOP 2018 is now in the process of being evaluated with the view to adopt it for the new CPI base year. INEC also uses the COICOP for its National Survey of Income and Expenditure.

537. The *Harmonised Commodity Description and Coding System* (HS 2012) has been adapted by Costa Rica. The General Customs Division of the MdH is responsible in Costa Rica for the composition of the tariff/classification and communicates its decision through a resolution in the official newspaper *La Gaceta*. The first 6 digits are the international classification (as per the World Customs Organisation), at 8 digits the classification is the Central American Tariff System (SAC) as per the Office of the Economy of Central American Countries, and while at 10 digits it is determined by the General Customs Division (and based on the SAC).

538. INEC published the *Standard International Trade Classification* (SITC Rev.4 [CUCI]) adapted to Costa Rica. The adaption of the structure involved disaggregating it to 6 digits. Conversion tables, to ISIC Rev.4, HS 2012 and CPC Rev.2, to the new CUCI are available on the website of INEC.

539. The *International Classification by Status in Employment* (ICSE 1993) has been 'adopted', however some criteria have been changed. These are: Employers – usually considered when they hire personnel; Own-Account Workers – considered as self-employed, if never or rarely hire personnel, and as employers if always or frequently hire wage-earning personnel; Unpaid Assistants – Group 5's name (contributing family workers) has been changed, people in this group are considered dependants and they may or may not be relatives; and Group 6 (workers not classifiable by status) – is not used (everybody can be classified into any of the preceding categories).

540. The *International Standard Classification of Education* (ISCED 2011) has been adopted and used in education statistics by the Ministry of Public Education.

541. The *International Statistical Classification of Diseases and Related Health Problems* (ICD 10), has been adopted without any change and used in morbidity and mortality statistics.

542. The *Territorial Administrative Division* (DTA) is Costa Rica's national geographical classification. It is monitored by INEC and the IGN (*Instituto Geografico Nacional* - the governing body of cartography in the country). The Territorial Administrative Division was created for purposes of public administration and sees the country divided into 7 provinces, 81 cantons and 480 districts. Its structure comprises a one digit code for the province, two digits for the canton and two for the district (five-digit code). Provinces were created for the purpose of electing MPs, and not necessarily in administrative terms. Cantons have a local municipal government, with administrative power that looks after the interests and services of the canton.

543. Presidential Decree No.7944, related to the Ministry of National Planning and Economic Policy, created *planning regions* (for public institutions). They were established for the purpose of planning, administration, research and development. Costa Rica is composed of six planning regions: Central; Brunca; Huetar Caribbean; North Huetar; Chorotega; and Central Pacific. Some planning regions are formed by cantons of a single province, such as the Huetar Caribbean region which consists of cantons in the province of Limón; and elsewhere cantons integrate two or more provinces, such as Central Region, comprising cantons in the province of San José and Alajuela.

INEC household surveys cannot provide information for the DTA classification (provincial, canton or district) because sample design is by planning region or by urban and rural areas. This is mainly due to a lack of financial resources to implement a DTA breakdown and also that the Ministry of National Planning and Economic Policy has mandated that public institutions provide regional statistics based on planning regions. Presently national accounts are only compiled at the national level.

544. In November 2016, INEC published the *Manual of Geographical Classifications with Statistical Purposes*, gathering information for the DTA classification (province, canton and district), regional planning (formation of the six planning regions); the degree of urbanization of the district (urban, predominantly urban, rural and predominantly rural); a list of localities and their typology (11 types of typologies for example: condominium, urbanization, centre, informal settlement); and country codes in accordance with the standard Country or Area Codes for Statistical Use of the United Nations Statistics Division and the codes assigned by the International Organization for Standardization (ISO).

545. In 2016, the Executive Council of the INEC also approved the technical guideline for the Geographical Classification of Costa Rica for statistical purposes through the Agreement 3 of the ordinary session No.830-2016 of November 1, 2016. The purpose of this technical guideline, published on the INEC website, [50] is established in Article 2, and consists in "... establishing the provisions for the application of the Geographical Classification Manual, which contributes to the standardization of the production and dissemination of statistics produced by SEN institutions".

546. The *Classification of Institutional Sectors* (CIS 2008 [SCN]), and the *Classification of the Functions of Government* (COFOG) have all been adopted by BCCR. However, COFOG is yet to be implemented in public expenditure statistics and in the national accounts. INEC has had some limited contact with the UN and IMF on the introduction of COFOG into the national statistical system and will therefore work with the BCCR on either adapting or adopting this classification. The BCCR also worked with the MdH on the revision of the COFOG classification. The MdH is aware that adjustments are required to comply with the international COFOG classification, and development are planned as part of the technical assistance from the Technical Assistance Regional Centre for Central America, Panamá, and the Dominican Republic (CAPTAC-DR).

547. The Classification of the Purposes of Non-Profit Institutions Serving Households (COPNI), Extended Balance of Payments Services Classification (EBOPS), have not been adopted or adapted by INEC or BCCR. These classifications are at present not relevant for INEC. The BCCR has no implementation date for EBOPS by partner country (which will directly impact on its ability to provide International Trade in Services statistics to the OECD, see chapter 8). The Classification of the Purposes of Non-Profit Institutions Serving Households (COPNI) will be implemented with the new base year for national accounts.

548. The BCCR adopted the EUROSTAT's end-use categories of the *Main Industrial Groupings* (MIG) for the producer price indices by type of goods during the review process and committed to make an effort to implement it in the context of the future implementation of a new base year for national accounts.

549. The BCCR is already engaged in the implementation of the EBOPS and some categories, such as Transport modes breakdown by passenger, freight and others, Manufacturing services on physical inputs owned by others and Direct and indirect insurances were implemented. The BCCR expects to complete this work between November and December of 2019.

[50] http://sistemas.inec.cr/sitiosen/sitiosen/Archivos/Codificador_pa%C3%ADs_2015.pdf

3.5.3. Compliance

550. International classifications, both those adapted and adopted, are widely used by the BCCR and INEC.

551. In the NSS as a whole, classifications are used by the following agencies: National Learning Institute (statistics on training services, CAECR 2011 and COCR 2011); Ministry of Labour and Social Security (administrative records, CAECR 2011, COC 2000 and COCR 2011); Ministry of Economy, Industry and Commerce (statistics on SMEs, ISIC Rev.4); Municipalities (administrative records, ISIC Rev.4); National Tourism Institute (tourism statistics, ISIC Rev.4); Ministry of Communication, Science and Technology (national science survey, ISIC Rev.4); Institute of Social Studies in Population (population statistics, COCR 2011), Ministry of Public Education (education statistics, ISCED 2011), Ministry of Health (morbidity and mortality statistics, ICD 10) and Social Security Agency (administrative records, ISIC Rev.3 and COC 2000).

552. The biggest incentive for agencies of the NSS to adhere to international classifications came from a presidential decree (No 38715-PLAN) in 2014 which focused on ISIC and ISCO classifications. One of INEC's obligations, as per Law No. 7839 and amended Law No. 9694, is the promotion, coordination and enforcement of compliance to international classifications by all the government agencies in the NSS. However, the classifications commission established by INEC in 2009 still only comprises of INEC to date (i.e. no other government agencies in the NSS are members). INEC acknowledges this situation and states that they are still working to formalise the committee (e.g. objectives, functions, duties of members etc.). Ultimately they would like the BCCR, the Ministry of Agriculture and Livestock, the National Learning Agency, the Ministry of Public Education, and the Ministry of Labour and Social Security to become part of the commission.

3.5.4. Overall assessment of international standards and classifications

553. Overall, but not universally, there is compliance with international classifications in Costa Rica and within the national statistical system. In particular, the recent implementation of the 2008 SNA has seen real progress in the direction of using international classifications by the two main statistical authorities, INEC and BCCR.

554. The new Statistics Law puts INEC in charge of ensuring the creation, monitoring and dissemination of standards and classifications as well as enforcing compliance. While INEC and BCCR have mostly met their obligations as per the law, there is still a reasonable amount of work to be done in the rest of the NSS.

555. INEC needs to ensure better overall coordination and cooperation among the NSS members for statistical classifications. The implementation of the Law No. 9694 has the potential to strengthen the authority of INEC on the NSS, but this could also be achieved through the active functioning of the *Internal Commission of Statistical Classifications* as established by INEC in 2009. In this regard INEC needs to find the resources to properly restart the activities of the commission (for example, a strong mission statement and formal agreements for participation could help here) and bring about regular meetings with *all* NSS members. As well as those mentioned by INEC, the MdH and the Ministry of National Planning and Economic Policy should certainly be included in the group. Given the successful presidential decree 38715-PLAN, issued in 2014 instructing the entities of the NSS to implement important international classifications, INEC could consider the possibility of another presidential decree targeted at the INEC Internal Commission of Statistical Classifications. In 2019, INEC informed the Secretariat on its plan to

issue specific guidelines for the formalisation of the commission by end 2020. These guidelines would also enable INEC to organise expert consultations when deemed appropriate.

556. In 2016, INEC made available to users comprehensive information on national and international classifications[51] (scope, structure, implementation date, originating authority, relevant legislation, etc.), their use (responsible institution, purpose of introduction, area of use, availability, etc.), as well as comparative tables. The reviewers welcome these developments, which contribute to an efficient coordination within the NSS, and encourage INEC to pursue their implementation and to incorporate further information on a regular basis.

557. Over the course of this review, INEC developed metadata in English[52] for both national and adapted international classifications, and plans to provide comprehensive metadata for all the classifications used in the NSS by 2021. An integrated management system of classifications based on a coding module is also under way to be used for the 2021 Population and Housing Census.

558. Finally, an executive decree (No.°41181-PAN) was issued on the classification of statistical information by geographic area, and in 2019, INEC issued the Public-private sectoral classification, based on the 2008 SNA, produced in cooperation with the BCCR, MdH, and the Ministry of Planning. BCCR) should be encouraged to carry on the integration of missing classifications into their statistical compilation for statistical domains where data are going to be required by international organisations. For example, EBOPS 2010 by partner country which is required for the compilation and dissemination of international trade in services data and requested by the OECD and the World Trade Organisation.

3.6. Labour force survey and households surveys

559. The Labour Force Survey (LFS) is one the main tools for labour market indicators (employed, unemployed by age, sex, educational level, kind of economic activity, occupation in the current (for the employed) or last (for unemployed) job, etc.). Furthermore, the LFS is the only source which enables employment to be measured in accordance with the internationally agreed concepts and definitions as established by the 13th International Conference of Labour Statisticians (ICLS 1982) convened in 1982 by the International Labour Office (ILO).

560. The main source for labour force statistics in Costa Rica is the quarterly household Continuous Employment Survey (Encuesta Continua de Empleo – ECE), and the quarterly enterprise ENAE (Encuesta Nacional a Empresas) survey conducted by the INEC (and financed by the BCCR). This section also covers the National Household Survey (ENAHO) conducted each year in July by INEC, which provides information on households' income and expenditures, poverty, housing, and other social, economic, and demographic variables associated with the living conditions of the population.

3.6.1. Continuous Employment Survey (ECE)

561. The ECE (*Encuesta Continua de Empleo*)[53] is a quarterly continuous (semi-panel) Labour Force Survey collecting information about employment and unemployment status of individuals. The ECE survey exists since 2010. It is the official source about employment and unemployment.

[51] http://sistemas.inec.cr/sitiosen/sitiosen/

[52] http://sistemas.inec.cr/sitiosen/sitiosen/FrmFichas.aspx

[53] INEC also produces monthly results from the ECE, averaged on three moving months.

The information of ECE complements that of the multi-purpose annual household survey ENAHO (*Encuesta Nacional de Hogares*), which covers employment and unemployment, expenditures of households, income and expenditures, poverty, housing, and social and demographic indicators in relation to the living conditions but which is conducted only once per year (in July).

562. The ECE covers the resident population living in individual households (collective households such as hospitals, convents, barracks or prisons are excluded[54]). Resident population is defined as all persons who usually live in the country and, at the time of the interview, had been living there for more than six months. However, if the person has lived or stayed in the household for a shorter period of time (six months or less), but intends to remain living there and does not have another residence, they are considered as resident population as well. People temporarily absent from the household are regarded as resident when their absence does not exceed six months.

563. The ECE collects information on demographic characteristics (kinship, sex, age, identification, place of birth) of all household members, and, for people aged 15 and over, on other characteristics (marital status, social security, education, language) and on their labour force status (employment/unemployment characteristics), which is consistent with OECD requirements. The coverage is national with results broken down by sex, age, education, rural/urban areas and the six planning regions of Costa Rica.

564. The sample of households is probabilistic stratified, based on a two-stage cluster; around 9,500 households are interviewed each quarter from 9528 Primary Sampling Units. The unit of analysis is the household and the members of the household, and the questionnaire does not allow proxy respondents. The sampling framework is extracted from the 2011 Census of Population. Around 25% of the housing units are rotated each quarter, thus the same households remain in the sample four quarters successively, which increases the quality of the survey in terms of measuring changes of labour force status. The response rate is above 90%. The reference period for determining people's labour status is one week before the interview, for employment and the last four weeks before the interview, for assessing job search requirements.

565. The design of the ECE and fieldwork started in 2010, allowing the implementation of many of the recommendations of the 19th ICLS. The new questionnaire takes into account feedback received from the International Labor Organization (ILO). INEC participated in meetings organized by international organizations such as the Statistical Conference of the Americas (SCA), a subsidiary body of the Economic Commission for Latin America and the Caribbean (ECLAC). In 2018, ECE-INEC participated in the 20th International Conference of Labour Statisticians (ICLS) of ILO.

566. In 2016, INEC launched a comprehensive analysis of the questionnaires from different surveys through the NSS, in order to incorporate some missing recommendations of the 19th ICLS and to adapt their objectives.

567. The ECE questionnaire includes more than 245 variables, classified in 10 sections:

- Household identification.
- Demographic characteristics
- Labour force status (employed, unemployed and not in the labour force)
- Employed population

[54]Costa Rica has no armed forces.

- Self-employed population (employers and own-account workers)
- Employee population
- Secondary employment
- Employment with insufficient hours and inadequate employment
- Unemployed population
- Primary producers for household consumption.

568. The ECE indicators of "decent work" include measures of hours worked (usual and actual), underemployment and earnings from work and employment stability. In addition, a section on informal employment has been included in the ECE questionnaire since 2014.

569. The ECE is the source of data for measuring the rate of employment and unemployment. It is an essential source of information on informal employment and for estimating the informal sector contribution to GDP[55]. The ECE provides a breakdown of "Employers and persons working on own account" into "Employers only" and "Persons working on own account" (definitions of the ICSE-93).

570. The economic activity classification used by ECE is based on ISIC 4 (version adapted to Costa Rica), while the occupational classification is based on ISCO-08 (version adapted to Costa Rica) and the status in employment is based on ICLS. The educational level is based on ISCED 2011 (version adapted to Costa Rica). Institutional units are classified based on SNA, while Territorial Units correspond to the official territorial Division of Costa Rica used by the National Statistics System (SEN). The definition of informal employment is consistent with the ILO manual "Measuring Informality".

571. Methodological information is available.[56] Documentation in English is available on the IMF SDDS. The survey is incorporated in the Accelerated Data Program (ADP).

572. The ECE survey team consists of 1 economist head of the survey, three economists, one person in charge of fieldwork and seven staff members managing field operations. Besides, 10 area supervisors, 22 interviewers and 12 drivers.

573. The dissemination of the ECE occurs 5 weeks after the end of the reference quarter, via a press release and electronic tables available on INEC's web site. Annual results are computed as the arithmetical mean of the quarterly data. The date of dissemination is announced in the 12-month ahead release calendar. The press release is transmitted for information under embargo to the relevant Ministers and to the BCCR 24 hours before the official publication. Anonymised micro-data are made available on the web once per quarter.

[55]While the ECE provides information about informal employment and earnings for employees, unpaid workers, employers and own-account workers, it does not provide information on employment in the informal sector (defined as recommended by the International Labour Organization) because the survey does not ask about the legal organization of the enterprise or the type of accounts kept for the employees and unpaid workers. The INEC and BCCR have started testing a Households Survey of Producers, which aims to estimate the production and characteristics of the informal sector.

[56]Encuesta Continua de Empleo: Métodos y Procedimientos, INEC, Agosto 2012.

3.6.2. National Survey of Enterprises (ENAE)

574. INEC conducted the quarterly ENAE survey on private firms (Encuesta Nacional a Empresas) from 2016 to 2018 to collect information on persons employed, position at work, hours worked and wages, from the perspective of demand (by firms). This survey contributed to develop and update the matrix of employment, which compares supply and demand of employment. BCCR and INEC intend to redesign the ENAE survey in 2019.

575. The results of the first year (2015) were reported on May 31, 2016 through a press release.[57] In addition, two manuals were published, one presenting the methodological information on the survey, such as: Justification and Importance, Background, Objectives, Thematic Coverage, Collection Period, Conceptual Definition, etc.; and the other one disseminating the results of the main variables investigated, such as: General Characteristics, Paid hours worked, remunerations and entry and exit of workers in enterprises.

576. Excel tables with the main results obtained were also published (available only in Spanish), namely:

- All companies in the private sector with 10 or more workers, by quarter and by economic sector.
- All workers by sex and by quarter.
- All workers by sex, by quarter, and by economic sector.
- All workers by quarter and occupational group.
- All workers by type of contract, by quarter, and by economic sector.
- All workers by quarter, by economic sector, and by occupational group.
- Monthly regular paid hours per worker, by sex, by quarter, and by economic sector.
- Monthly overtime paid per worker, by sex, by quarter, and by economic sector.
- Monthly overtime paid per worker, by quarter, and by occupational group.
- Monthly average earnings per worker by sex, by quarter, economic sector, and by occupational group.
- Monthly average earnings per worker by sex, by quarter, and by occupational group.
- Percentage of subcontracted workers (outsourcing), by sex, by quarter and economic sector.
- Percentage of subcontracted workers (outsourcing), by quarter and occupational group.
- Percentage of unlinked workers, by sex, by quarter and economic sector.
- Percentage of unlinked workers, by quarter and occupational group.
- Percentage of new contract workers, by sex, by quarter and economic sector.
- Percentage of new contract workers, by quarter and occupational group.

[57]In 2016, INEC published a new website which gave not access to some documents during the pilot phase and updating process.

- Percentage of vacancies, by quarter and economic sector.
- Percentage of vacancies, by quarter and occupational group.
- Variability of all companies in the private sector with 10 or more workers, by quarter and economic sector.
- Variability of all workers by quarter and sex.
- Variability of all workers by quarter and economic sector.
- Variability of all workers by quarter and occupational group.
- Variability of average regular monthly paid hours per worker, by quarter, sex and economic sector.
- Variability of average monthly wages per worker, by quarter, occupational group and sex.

577. It is important to add that the database of the ENAE is not accessible to the public in general.

578. While the ECE is a household survey, the ENAE was an enterprise survey which used to provide an alternative source for measuring average wages by industry and occupational group.

3.6.3. The National Household Survey (ENAHO)

579. The National Household Survey is conducted each year in July since 2010, and succeeded to the Household Survey of Costa Rica carried out by INEC from 1968 to 1986, and the multi-purpose Household Survey carried out from 1987 to 2009. The results from the ENAHO survey are not linked to those of the previous household surveys.

580. The ENAHO survey provides information on households' income and expenditures, poverty, housing, and other social, economic, and demographic variables associated with the living conditions of the population.

581. Legally, INEC conducts the ENAHO survey under the Article 34 (d) of Law No. 9694, which requires INEC to prepare and disseminate statistics on employment, unemployment, household income, etc.

582. The ENAHO is financed by a budget from the Government of the Republic, while some institutions can request specific modules that they finance. In the past, the National University (Universidad Nacional) the BCCR, Ministry of Health, CCSS, Ministry of Labour, Ministry of Culture, and the National Social Assistance Institution funded specific requests.

583. The ENAHO survey is nationally representative, covering the whole territory of Costa Rica, including urban and rural areas. The sample of households is probabilistic, stratified in two stages, and includes 1 120 Primary Sampling Units and 13 440 housing. The response rate amounts to 85% of households.

584. Results are published in October, i.e. three months after the end of the reference month, in accordance with the advance released calendar published by INEC. The MdH, Ministry of Labour, Ministry of Planning, and the President of the BCCR receive the results 24 hours before the press conference, during which the results are publicly released on the website of INEC. A printed publication is released in December-January and Excel tables and micro-data are made available to users approximately five months after the end of the reference month (in December).

3.6.4. National Survey of Micro-enterprises of the Household (ENAMEH)

585. The Encuesta Nacional de Microemprendimiento de los Hogares (ENAMEH) survey conducted by the INEC, and financed by the BCCR, intends to collect relevant information on productive activities carried out by households and thus represents an important source for the estimation of household production in the national accounts. ENAMEH has replaced the Encuesta Nacional de Hogares Productores (ENHOPRO) survey in 2017. The sample from ENHOPRO stopped in 2015 and a methodological review was carried out in 2016. ENAMEH is based on the National Household Survey (ENAHO), whose sampling design and representativeness comply with the purpose of obtaining the sampling frame of micro-entrepreneurs, giving a sample of approximately 3500 households each year, throughout the territory of Costa Rica, including urban and rural areas. The response rate is approximately 82% (in 2018). The results are published six months after the end of the data collection, which takes place in September. Available annual time series cover the years 2013 to 2019, with a break in 2016, when the survey was not conducted. Households surveyed are those that carry out an independent economic activity, receiving a mixed income as employer or independent employee from their activities in non-corporate firms. The target population includes establishments, businesses, or farms that meet at least one of the following conditions:

- Not being registered in the Land Registry as a company or business with a corporate identification.
- Not having formal accounting records to quantify the income and expenses of its activity.
- Not having assigned a salary for the done work.

586. The ENAMEH survey collects information on economic activities carried out by households, on the current status of the business' activity, on the characteristics of the activity carried out as well as on levels of monetary income, revenues and expenditures (cost structure), financing, but also general characteristics of the households as producers; living standards; alternatives of billing and payment; access to support programs; use of Information and Communication Technologies (ICT's); and use of assets in the business.

587. Agricultural and non-agricultural activities are distinguished. A production and generation of income account is then created for each of the productive activities in which households participate.

588. Databases are processed for validation and verification, making adjustments before starting to estimate the data for the production and generation of income accounts for the activities carried out by the household sector. The following steps in the process can be distinguished:

- Classification by economic activity and coding of products using the country's standard product classification of activities reported in the survey (at the ISIC 4 code level), for both the primary and the secondary activity.
- Definition of percentages of participation in primary and secondary activities, and application to relevant variables.
- Coding the spending, income, and employment variables of the groups surveyed in ENAMEH using codes of the 2008 SNA, namely:
  - Number of producers by economic activity by type of product (primary and secondary)
  - Income from non-agricultural activities

- Crops
- Animal husbandry
- Derivative products
- Other income from agricultural activity
- Spending on salaries and employer social contributions
- Personnel contracted during the last 12 months
- Personnel contracted during the last month
- In-kind spending for personnel – not members of household
- Spending on services
- Spending on rentals
- Taxes
- Other spending
- Costs of agricultural activity
- Costs of inputs and materials

589. Coding inputs of activities is according to the Central Product Classification and its correspondence with the country's standard product classification (NP).

590. It is important to emphasize that, while a consistent structure of the analysed indicators is estimated at an aggregated level of economic activity (through adjustments for missing values), a second phase of validation is carried out at the level of individual records, using the following indicators:

- % Intermediate consumption / Gross output
- % Added value / Gross output
- % Remunerations / Gross output
- % Other taxes on production / Output
- % Other subsidies for production / Output
- % Fixed capital consumption of corporations / Output
- % Fixed capital consumption of non-corporate firms / Output
- % Gross operating surplus / Output
- % Gross mixed income / Output
- % Net operating surplus / Output
- % Net mixed income / Output
- % Compensation of employees / Added value
- % Other taxes on production / Added value
- % Other subsidies for production / Added value
- % Fixed capital consumption of corporations / Added value

- % Fixed capital consumption of non-corporate firms / Added value
- % Gross operating surplus / Added value
- % Gross mixed income / Added value
- % Net operating surplus / Added value
- % Net mixed income / Added value
- % Actual social contributions of employers / Wages and salaries in money
- % Actual social contributions of employers to pension plans / Wages and salaries in money
- % Actual social contributions of employers to the CCSS / Wages and salaries in money
- % Actual social contributions to the National Insurance Institute for professional risk plans / Wages and salaries in money
- Compensation of employees, yearly average (¢)
- Yearly average of wages and salaries in money (¢)
- Yearly average net mixed income (¢)
- Remunerations, monthly average (¢)
- Monthly average wages and salaries in money (¢)
- Monthly average net mixed income (¢)
- Gross output per employed person (¢)
- Added value per employed person (¢)

591. Information by economic activity, both grossed up and at the sample level, is provided to representatives of the various activities so that they may evaluate the activity as a whole (taking into account participation of households as well as of incorporated firms) and includes adjustments to output and components of the generation of income account in a second phase that takes into consideration the above mentioned indicators, at the sample level and by record, also including production and cost structures, as well as aspects related to wages and salaries and taxes on products, and other taxes on production.

592. Finally, employers' social contributions, work risk insurance plans, and other taxes on production are adjusted to ensure a balance between employment and related resources in the whole economy, between the institutional sectors paying the costs and those receiving associated income.

3.6.5. Overall assessment of labour force surveys and households surveys

593. The Labour Force Survey (LFS) is one the main tools for labour market indicators (employed, unemployed by age, sex, educational level, kind of economic activity, occupation in the current (for the employed) or last (for unemployed) job, etc.), and the only source enabling employment to be measured in accordance with the internationally agreed concepts and definitions established by the 13th International Conference of Labour Statisticians (ICLS 1982) convened in 1982 by the International Labour Office (ILO).

594. The main sources for labour force statistics in Costa Rica are the quarterly household Continuous Employment Survey (ECE), and the quarterly enterprise survey (ENAE) conducted by INEC and financed by the BCCR. ECE complements the multi-purpose annual household survey (ENAHO) carry out by INEC, which covers employment and unemployment, households' income and expenditures, poverty, housing, and social and demographic indicators in relation to the living conditions. ENAE collects information on persons employed, position at work, hours worked and wages, from the perspective of demand (by firms). Launched for the first time by INEC in 2016, ENAE contributed towards the development of the matrix of employment, which compares supply and demand of employment. INEC also carries out the National Survey of Household Income and Expenditures (ENIGH), an important and costly household budget survey financed by the BCCR, collecting information on household consumption, income, housing conditions, durables, and some social characteristics. The National Survey of Microenterprises of the Household (ENAMEH), conducted by INEC, collects information on employers' households or self-employed workers, not occasional, whether registered or not in a public authority as producers of goods or services (informal sector of the economy).

595. Since 2010, INEC launched several important surveys for the collection of a wide range of labour statistics and households characteristics. These surveys are compliant with the OECD requirements as regards sources of labour statistics. However, their relatively recent implementation does not allow INEC to provide long time series. In addition, the combination of results from the different surveys might require particular attention, for example with results from the annual ENAHO and the multi-years ENIGH surveys. Attention also needs to be given to ensuring that the results obtained from the different surveys are coherent.

Chapter 4. NATIONAL ACCOUNTS

4.1. Background

596. The objective of the OECD's National Accounts Statistics Programme is to disseminate a complete set of national accounts that are comparable between countries, analytically useful, timely and available for a period as long as possible.

597. The present assessment is based on the data and metadata supplied by Costa Rica via the OECD questionnaires, the documentation obtained through the first OECD fact finding mission (16-20 February 2015), and the examination of the existing national and international sources (IMF) for Costa Rican national accounts statistics. The BCCR contributed actively to the review process. This chapter covers both annual and quarterly non-financial national accounts. General government accounts and financial accounts are reviewed in Chapter 9.

598. In 2009, BCCR launched a major project for a complete overhaul of the national accounts statistics of Costa Rica, which were previously based on an obsolete base year (1991). This project has already resulted in the publication and the transmission to the OECD of a substantial set of new annual data followed in early October 2016 by a set of quarterly data, according to SNA08 standards, and reflecting a new base year 2012. The present assessment of annual and quarterly data reflects the situation of the project as of beginning on April 2019.

599. The national accounts of Costa Rica are compiled by the Macroeconomic Statistics Department of the Economic Division of the BCCR. The Department includes 75 staff members, of which 51 are assigned to the compilation of national accounts. The BCCR has been compiling national accounts since 1957. However, at the end of the previous century, there was a discussion on the possible involvement of INEC in the compilation of national accounts. Transitory disposition III of Law 7839, dated October 15, 1998, establishing the INEC and listing the statistics that INEC must generate, determined the timing and the conditions for transferring the compilation and dissemination of national accounts from the BCCR to INEC. Nevertheless, this transitory disposition was derogated by Law 8284 of May 28, 2002 and BCCR remains therefore the official compiler of national accounts in Costa Rica.

600. The OECD has no particular reason to question the attribution of the compilation of national accounts statistics to the Statistical Office or to the Central Bank, as long as the quality of the data and their processing and dissemination follow best practice and as long as coordination between agencies operates efficiently. In most OECD Members, national accounts are compiled by the National Statistical Office, but in some (Chile, Korea and Belgium) they are compiled by the Central Bank.

601. As discussed in Chapter 1, co-ordination between agencies is conducted in Costa Rica under a comprehensive Memorandum of Understanding between INEC and the BCCR. Globally speaking, under this memorandum, business surveys are conducted by the BCCR, while household surveys are conducted by the INEC. It is welcome in terms of efficiency that business surveys with direct relevance to national accounts are conducted by the same institution that compiles national accounts. This is the case with the BCCR which compiles both. Chapter 1 discusses the legal basis for the BCCR to conduct these business surveys.

4.2. OECD data and metadata requirements for non-financial national accounts statistics

602. This section separately discusses annual and quarterly non-financial accounts.

4.2.1. Coverage – non-financial annual accounts

603. The OECD Annual National Accounts (ANA) database contains data collected from all OECD member countries and some other major economies on the basis of a standardised questionnaire as well as according to countries' own definitions and classifications.

604. The data requested cover the following domains:

- Table 0101: Gross value added at basic prices and GDP at market prices, current price and volume, ISIC 4/A10 breakdown of industry.
- Table 0102: Gross domestic product (expenditure side): final consumption breakdown, gross capital breakdown, exports and imports of goods and services, current price and volume, AN_F6 breakdown for GFCF.
- Table 0103: Gross domestic product (income side): compensation of employees in ISIC 4/A10 breakdown, current prices.
- Table 0107: Disposable income, saving, net lending/borrowing, current prices.
- Table 0110: Population and Employment.
- Table 0111: Employment by industry, breakdown by ISIC 4/A10, in persons, hours worked and jobs.
- Table 0117: Final consumption expenditure by durability, current prices and volume.
- Table 0119: Simplified non-financial accounts by institutional sector, current prices.
- Table 0200: Main aggregates of general government and its subsectors, current prices (see Chapter 9).
- Table 0301: Output and income, breakdown in ISIC 4/A21/A38/A64/A88, current prices, volume for value added and consumption of fixed capital.
- Table 0302: Capital formation, breakdown in ISIC 4/A21/A38/A64/A88/AN_F6, current prices and volume.
- Table 0303: Employment, breakdown in ISIC 4/A21/A38/A64/A88, in number of persons, hours worked, jobs.
- Table 0501: Final consumption expenditure of households by purpose, in COICOP, current prices and volume.
- Table 0502: Final consumption expenditure of households, from domestic to national concepts, current prices, volume.
- Table 0800: Non-financial accounts by institutional sector (detailed), current prices, employment by institutional sector in number of persons and hours worked.

- Table 0900: Detailed tax and social contribution receipts by type of tax or social contribution and by receiving sub-sector, current prices (see Chapter 9).
- Table 1100: Expenditure of general government (and sub-sectors) by function, current prices (see Chapter 9).
- Table 2000: Cross-classification of fixed assets by industry, breakdown by ISIC 4/A21/A38/A64/A88 and by non-financial fixed assets, An_F6, current prices and volume.
- Table 2200: Cross-classification of gross fixed capital formation by industry, breakdown ISIC 4/A21/A38/A64/A88, and by non-financial assets, AN_F6, current prices and volume.
- Table 2600: Balance sheets for non-financial assets, by sector, current prices.
- Table 2900: Social insurance pension schemes (collected by OECD from June 2018)

605. Time series are expected to cover 1970 to the latest year except for T2900 on which the information will start from 2015. Historical data before 1970 are also welcome, if available.

4.2.2. Coverage – non-financial quarterly accounts

606. Quarterly national accounts in the OECD are organised under two datasets: QNA and QSA.

a) QNA

607. The OECD's Quarterly National Accounts (QNA) dataset contains data collected from all OECD member countries and some other major economies on the basis of a standardised questionnaire designed to collect internationally comparable data according to definitions and concepts presented in the 2008 System of National Accounts 2008 (2008 SNA). It includes a selection of seasonally and non-seasonally adjusted quarterly national accounts widely used for economic analysis from 1960 or whenever available, such as gross domestic product, final consumption expenditure, gross capital formation, disposable income, population and employment, most of them referring to the total economy.

608. The QNA series, included in the following accounts, are requested on a seasonally and non-seasonally adjusted basis:

- Table 0101: Gross value added at basic prices and GDP at market prices, current prices and volume, ISIC 4/A10 breakdown of industry.
- Table 0102: Gross domestic product (expenditure side): final consumption breakdown, gross capital breakdown, exports and imports of goods and services, current price and volume, AN_F6 breakdown for GFCF.
- Table 0103: Gross domestic product (income side): compensation of employees in ISIC 4/A10 breakdown, current prices.
- Table 0107: Disposable income, saving, net lending/borrowing, current prices.
- Table 0110: Population and Employment, in persons.
- Table 0111: Employment by industry, breakdown by ISIC 4/A10, in persons, hours worked.

- Table 0117: Final consumption expenditure by durability, current prices and volume.

b) QSA

609. The OECD's Quarterly Sector Accounts (QSA) dataset contains data collected from all OECD member countries on the basis of the standardised questionnaire designed to collect internationally comparable data according to definitions and concepts presented in the System of National Accounts 2008 (2008 SNA). These accounts record economic transactions by institutional sector, such as value added, operating surplus, saving and net lending/net borrowing, for financial and non-financial corporations, general government, households and NPISH, the rest of the world and the total economy.

610. The QSA series, included in the following accounts, are requested on a seasonally and non-seasonally adjusted basis:

- Table 0801: Non-financial accounts by institutional sector (detailed), current prices, employment by institutional sector in number of persons and hours worked.

611. Some relevant volume series are also requested.

612. Time series of QNA and QSA are expected to cover at least Q1 1995 to the present reference quarter Q. Historical data are also welcome, if available.

4.2.3. Compliance – annual and quarterly national accounts

613. The conceptual reference is the 2008 SNA.

4.2.4. Interpretability (Metadata requirements)

614. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. To ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet.

4.2.5. Timeliness – annual accounts

615. The OECD expects the transmission of annual accounts at Y + 9 months with the exception of government accounts (see chapter 9).

4.2.6. Timeliness – quarterly accounts

616. The OECD expects the transmission of the first estimate of GDP at Q+45 days, where Q is the reference quarter.

617. Remaining quarterly accounts are expected by the OECD when data are released at the national level and no later than Q+90 days.

4.2.7. Data and metadata transmission – annual and quarterly non-financial accounts

618. The OECD expects the transmission of annual and quarterly accounts on the same day of the national release.

4.3. Evaluation of current non-financial national accounts of Costa Rica

4.3.1. Annual national accounts

619. This assessment of Costa Rica's annual national accounts is based on the data and metadata provided by the BCCR after the implementation of a new base year (base year 2012) published in 2016. These data are the result of a very impressive project, so-called "CAB", which was started in 2009 with the aim to renovate entirely the previous system. The new set of national accounts which has been published in several steps during 2016, combines the implementation of the 2008 SNA, ISIC Rev4 and CPC Rev 2 with the use of a recent base year of 2012 (replacing the old base year dating from 1991), and using a series of new surveys. The previous set of annual national accounts for Costa Rica was based on the reference year 1991 and the time series started from 1991.[58] In fact, national accounts have been prepared by the BCCR since 1957.

620. This effort included the launching of several important and costly surveys such as the Economic Study of Enterprises (EEE), ETAPA (replaced by ENA in 2017), ENHOPRO (replaced by ENAMEH in 2017), ENAE, all of them necessary as sources for producing national accounts (and financed by the BCCR). These surveys are relatively recent and their results need to be confronted with the constraints of regular annual and quarterly calculations in terms of interpretability, credibility, coherence, and timeliness.

621. Much of the assessment of the quality of national accounts, including comparability with the data of other OECD Members, rests on an assessment of the sources, definitions, classifications and methods used to compile them. The OECD welcomes very much the provision of the following technical documents in English and Spanish:

- OECD Questionnaire I: Compliance (technical document I);
- OECD Questionnaire II: Sources and Methods (technical document II);
- OECD Questionnaire III: Prices and Volumes (technical document III).

622. However, because of the time constraints of the CAB project, the BCCR first released detailed methodological information on specific domains before to publish an overall methodological document on national accounts.[59]

4.3.1.1. Coverage

623. The tables transmitted by the BCCR to OECD cover a set of annual data (2012 as base year), and remains below OECD requirements in terms of timeliness and length of time-series.

624. As of 12 March 2019, the following datasets have been transmitted to OECD at least once:

- Table 0101: Annual GDP estimate under the production approach, at current and previous year's prices referenced to 2012, with a breakdown by major industries (ISIC 4), available from 1991 to 2017. Data for 2018 were also received, marked as estimates. 2017 data were loaded in the OECD national accounts database as estimates but 2018 data, considered by the OECD as forecasted values subject to

[58]To be noted that the BCCR publishes forecasts for the current and next year whenever it disseminates its data. Thus, for example, data disseminated by the BCCR in January 2016 cover 2015 and 2016. 2016 is clearly a forecast. It should be considered that 2015 is also more a forecast than a statistics.

[59] https://activos.bccr.fi.cr/sitios/bccr/proyectocambioannyobase/DocProyectoCambioAnnyoBase/documentoscnadocpresentaciones/Metodologia%20CAB-2012-INGLES.pdf

large revisions, were loaded as confidential (and are therefore not publically available at the time of writing this report) (see 2.3.5). This table is complete.

- Table 0102: Annual GDP estimate under the expenditure approach, at current and previous year's prices referenced to 2012, with a breakdown by: final consumption of households, final consumption of general government, GFCF, change in inventories, exports minus imports, available from 1991 to 2017. Data for 2018 were also received, marked as estimates. 2017 data were loaded in the OECD national accounts database as estimates but 2018 data, considered by the OECD as forecasted values subject to large revisions, were loaded as confidential (and are therefore not publically available) (see 2.3.5).
- Table 0103: Annual GDP estimate from the income approach have been provided for the years 1991 to 2016. This table is complete.
- Tables 0107: Annual disposable income, saving and net lending for the total economy, available from 1991 to 2017, in current prices. This table is complete. Data for the year 2017 were marked as estimates, and for 2018 as confidential.
- Table 0110: Annual aggregated table on population and employment, from 1987 to 2018. This table is complete.
- Table 0111 (provided by INEC): Annual employment by aggregated industry. This table is complete. Hours worked are now provided at annual level for total employment, employees, self-employed instead of averages which is fine. The level of the weekly hours has been corrected following discussions with INEC. The data are based on national concept and INEC is working on deriving data according to domestic concept. The break in 2010 highlights a change in source data.
- Table 0117: Final consumption by durability available for 1991-2016. Data are based on national concept and include final consumption expenditure of non-profit institutions serving households.
- Table 0119: Simplified non-financial accounts by institutional sector. This table is complete but the length of the time-series (2012-2016) is too limited to be useful.
- Table 0200: Main aggregates of general government, available from 2000 to 20187 (see Chapter 9). An update with data up to 2017 was received on 21st March 2019 and with data for 2018 in late July 2019. It should be flagged that D4, D7 and D9 are not consolidated and that the B9 is not equal to the TR-TE (see chapter 9)
- Table 0301: Output and income by detailed industry available for 1991-2016. The most detailed level of the breakdown by industry is however available only from 2012 for the following components: Consumption of fixed capital, Net operating surplus and net mixed income, Other taxes less other subsidies on production, Compensation of employees and Wages and salaries. Data are provided in current prices and as chain linked estimates.
- Table 0302: Capital formation by detailed industry available for 2012-2015. The span of the time series is very limited. Data are provided in current prices only.
- Table 0303: Annual employment by detailed industry. Data are provided from 2010 to 2018 for detailed industries however, all level 2 data are confidential. From 1987 to 2009, data are provided for aggregate industries according to a previous source, in ISIC Rev 4. Hours worked are now provided at annual level for total

employment, employees, self-employed instead of averages which is fine. The level of the weekly hours has been corrected following discussions with INEC. The data are based on national concept and INEC is working on deriving data according to domestic concept.

- Table 0501: Final consumption of households in COICOP. Available for 1991-2016. The data are based on national concept and include final consumption expenditure of non-profit institutions serving households.
- Table 0502: Data on final consumption of households. The specific series of this table (Final consumption expenditure of resident households in the rest of the world and Final consumption expenditure of non-resident households on the economic territory) have not been provided yet. Only the data corresponding to the total final consumption (national concept) were provided once in 2016. But as the same data are also provided in table 0117 and 0501, submission of table 0502 has stopped.
- Table 0800: Detailed non-financial accounts by institutional sector available from 2012 to 2016. This table is complete but the span of the time-series is too limited to be useful.
- Table 0900: Detailed tax and social contribution receipts available from 2000 to 2016 (see Chapter 9) were received in July 2018.
- Table 1100: Expenditures of general government in COFOG (see Chapter 9). Data (received in April 2019) are available from 2012 to 2017.
- Table 2200: Cross-classification of gross fixed capital formation by detailed industry. Data are available from 2012 to 2016 at current prices only.
- Table 2900: Social insurance pension schemes. Data for the year 2015 was provided on 6 March 2019. Costa Rica should be commended for the timely provision of these new data. Data (totals) for columns C and I are free for publications whereas data for columns A, B and H are mostly confidential. Metadata was provided for available pensions schemes (columns) in the dedicated metadata sheet.

625. The tables that are completely missing in terms of OECD requirements are the following:

- Table 2000: Cross-classification of fixed assets by detailed industry. This table is not available for the time being. However, Costa Rica is involved in the LA-KLEMS project, for which the BCCR will produce information enabling to complete the table 2000 by the end of 2019.
- Table 2600: Balance sheets for non-financial assets per institutional sectors. At the time of writing this report, the BCCR is compiling this information and committed to complete this table by end 2019.

626. Overall, at this stage, the years 1991-2018 have been disseminated and transmitted to the OECD for a subset of the data, essentially GDP output and expenditure. The data for institutional sector accounts remains limited to the years 2012-2016, except for general government. This very short time span does not allow any time series analysis yet or useful use of these data. It is essential that BCCR rapidly extends the backward calculations of its time series for institutional sectors. It appears also that the availability of some tables lack timeliness. The transmission of observed (not estimated or forecasted) national accounts main aggregates should be accelerated and a process of publication of a first version of institutional sector accounts should be put in place in order to

ensure availability at the latest in Y+9 months. At the time of writing this report, the BCCR acknowledges the importance of developing enabling appropriate processes to improve timeliness.

4.3.1.2. Compliance with the concepts, definitions, classifications and recommendations of the 2008 SNA

627. The new set of national accounts of Costa Rica is considered compliant with the 2008 SNA:

- Goods for processing are treated net.
- FISIM is measured based on 2008 SNA recommendation and allocated to users.
- The output of non-life insurance is based on expected claims, as recommended by 2008 SNA.
- Expenditures on Research and Development, software, and entertainment, literary or artistic originals are capitalised. Capitalisation of weapon systems or mineral exploration do not apply in Costa Rica.[60]
- Work in progress is estimated for agriculture, large construction projects, and in service industries.
- Market output and output for own final use are valued at basic prices.[61]

628. National accounts data (base 2012) is also compliant with the 2008 SNA recommended classifications:

- ISIC Rev 4 for industrial classification (adjusted to Costa-Rica, AECR-136)
- CPC Rev 2 for product classification (adjusted to Costa-Rica, NPCR-183)
- COICOP
- COFOG
- COPNI
- The SNA asset classification.

629. Classification within institutional sectors is also compliant with 2008 SNA. The following sectors and sub-sectors are categorised:

- S11. Non-financial corporations
  - S11001. Public non-financial corporations
  - S11002. Private non-financial corporations (with a breakdown between Free Trade Zones and Normal Regime).
  - S11003. Non-profit institutions serving non-financial corporations.
- S12. Financial corporations
  - S121. Central bank

[60]The country has no armed forces. There is no mineral exploration in Costa Rica.

[61] In Costa Rica, there is a sales tax of 13%, which functions partly as a VAT, but limited to goods and not services. Basic prices do not include any "non-deductible VAT" nor any taxes on products. The Law No. 9635 "Fortalecimiento de las Finanzas Publicas" adopted in 2018 (*La Gaceta* dic- 04-2018) introduces a new tax on services to be implemented six months after the law enters into force.

See https://www.hacienda.go.cr/docs/5c07dd2965e11_ALCA202_04_12_2018.pdf

  - S122. Deposit companies, except Central Bank
  - S123. Money market funds
  - S124. Non-money market fund investment funds
  - S125. Other financial intermediaries, excluding insurance and pension funds
  - S126. Financial auxiliaries.
  - S127. Captive financial institutions and money lenders.
  - S128. Insurance companies.
  - S129. Pension funds.
- S13. General government.
  - S1311. Central government.
  - S1313. Local governments.
  - S1314. Social security.
- S14. Households.
- S15. Non-profit institutions serving households.
- S2. Rest of the world.

4.3.1.3. Main surveys and sources used for national accounts

630. The primary information used for the compilation of national accounts in Costa Rica is a combination of administrative data and of surveys. Exhaustive administrative data on Free Zones corporations is obtained via the annual reports collected by the Costa Rican Export Promotion Agency (PROCOMER). The same is true for financial corporations (supervised by the BCCR) and general government entities.

631. On the other hand, the private, non-special regime, non-financial sector is covered by surveys. The business surveys, which are essentially conducted by the BCCR[62], have been reorganised and strengthened during the last five years in order to prepare the new set of national accounts (base year 2012). The Economics Surveys Area unit, in the Department of Management of Economic Data of the BCCR, is in charge of economic surveys in the BCCR. This unit coordinates all BCCR's business surveys covering Balance of Payment surveys (see Chapter 8), Export of Services surveys (see Chapter 8), Perception surveys, the Economic Survey to Companies (see below), and a Financial survey on households.

632. In addition, the BCCR has obtained access to individual corporate income tax returns of the MdH in 2017.

633. A new register of institutional units and establishments has been developed by INEC (see Chapter 2). Under the BCCR-INEC MoU, the BCCR has access to this register and has built its own register (REVEC), from which it is now able to apply scientific sampling techniques (see Chapter 2). The REVEC is not only a register for the identification of corporations but includes many economic variables per enterprise: ISIC Rev.4 classification, products, employment, turnover, wages, etc.

a) Five-year and annual Economic Study of Enterprises

634. The objective of this survey (Estudio Economico a Empresas, EEE) is to collect every five years data on non-financial private companies, including balance sheets and destination of

[62]The exception is the very recent (first results in 2016) National Survey of Enterprises (ENAE) conducted by INEC. This quarterly survey covers employment by firms. It is financed by the BCCR. See Chapter 2 for details.

production. The EEE survey started in January 2013, to review the accounts of firms for 2012, the base year of the new set of national accounts. The 2013 survey included 1800 companies.

635. The annual version of this survey is based on a limited sample of about 1500 businesses classified into forty economic activities approximately. The content of the survey (organized on an interview basis) covers:

- Precise identification of the firm,
- Description of the activities,
- Description of the products produced,
- Description of products bought to be resold,
- Turnover in products and services (domestic and export),
- Other revenues (non-financial and financial),
- Detailed costs (changes in stocks of materials, compensation of employees – including social contributions, depreciation, detailed use of services, detailed other costs, financial costs),
- Surplus/deficit,
- Income taxes and detailed taxes on production,
- Complete balance sheet (assets and liabilities, with detailed movements in type of assets), and
- Employment.

636. Given that for a large part of the country's businesses the fiscal year ends in September, information from businesses in the sample is requested at the beginning of October. The data for each business are entered into a computing system that the national accounts department can consult in real time. Information is integrated in the system by information managers of the MdH, and checked by supervisors. The EEE survey is shared with MdH, but according to the Law No. 7839, as the information is obtained for statistical purposes, it cannot be shared with areas of the MdH that are not involved in statistical analysis such as auditing and control, which ensure the confidentiality of individual information. The BCCR is notified so that it may validate the information and, should there be any inconsistencies, the MdH is notified for the corresponding corrections; if the information does not show any inconsistencies, the BCCR's national accounts analysts begin to use the information. The computing system provides information on the production and generation of income account by establishment, as well as the distribution of income, accumulation and balance sheet accounts for the business sector. For instance, for businesses whose fiscal year ends in September, information for the year is requested in early October and data is processed in the beginning of the following year.

637. The most important group of economic activities in the country is thus surveyed every year. For the years without information on economic activity available from the EEE, data for the production and the generation of income accounts are obtained by extrapolating data for the previous year at both current prices and previous year prices.

b) Quarterly private construction (finished projects) survey

638. The objective of the survey is to measure quarterly the private construction activity at national level. The survey is outsourced to the Federated Association of Engineers and Architects

(CFIA), which has delivered quarterly results since Q4 2010. The survey covers 1 000 private construction projects that are monitored until they are finalized or suspended. New projects are then either included or substituted in the corresponding quarter. The sample is composed therefore of new projects and projects in process of construction began in earlier quarters.

639. Projects are selected by construction prototype, on two strata, (i) forced inclusion for large projects and (ii) random sampling (proportional probability design) for smaller projects. Each project then receives an expansion factor proportional to its size to reflect its weight in the population.

c) Monthly business surveys

640. These surveys are used to elaborate the main monthly index of production (IMAE). They essentially deliver quantity data used in the following for quarterly and annual national accounts:

- *Agriculture*: quantity produced by product, quantities exported, domestic sales. Time span: 1991 onwards.
- *Manufacturing*: quantities produced by product, sales, value-added, average price. Time span: 1991 onwards.
- *Trade*: sales. Time span: 1991 onwards.
- *Mining and quarrying*: quantities extracted. Time span: 1991 onwards.
- *Hotels:* revenue per stay, number of rooms available and occupied. Time span: 2012 onwards.

641. The samples are derived from REVEC.

Table 6. Monthly business survey – sample size

Industry	n (current sample)	n (new sample)	Level of error
Hotels	116	138 firms	4%
Manufacturing	89	134 firms	= 10% for all economic activities
Trade	49	64 firms	= 10% for all economic activities
Mines and quarries	15	26 firms	20%

Source: INEC.

642. A monthly wholesale and retail trade index is also being used. This index is based on a monthly survey on sales of commercial companies as well as administrative records from the MdH.

d) National Survey of Household Income and Expenditure Survey (ENIGH)

643. The Encuesta Nacional de Ingresos y Gastos de Hogares (ENIGH) is an important and costly survey (100 staff involved) organised by INEC every 5 years while carried out irregularly in the past: 1949, 1961, 1974, 1987-1988, 2004-2005, 2012-2013, and 2018. INEC carried out the 2018 National Survey of Household income and expenditure between February 2018 and March 2019. Results were made available in October 2019 and have been used in updating the 2017 base year of national accounts. The survey is financed by the BCCR. Besides collecting information on household consumption, the survey covers income, housing conditions, durables, and some social characteristics. The coverage of income is comprehensive, including labour, rental, current and capital income and imputation of owner-occupied housing. Definition of

income is consistent with the Manual of the Canberra group and 2008 SNA. ENIGH uses scientific sampling techniques. The survey covers households from all socio-economic groups in both the urban and rural areas of Costa Rica. The sample of the 2012/2013 ENIGH, containing 7 000 households, was selected using a sampling frame based on the 2011 Population Census. The results of the 2013-2014 national income and expenditure survey (ENIGH) have been used in the updating of the new base year 2012 and the results of the 2018 ENIGH were published in late 2019.

e) National Agricultural Survey (ENA)

644. The quarterly National Agricultural Survey (ENA) was redesigned based on the results of the 2014 agricultural census. In addition to agricultural production, other activities of productive importance, such as cattle and pigs, forestry activities and flowers, were included. The ENA was first implemented in 2017, replacing the Quarterly Survey on Agriculture (ETAPA). Its temporary coverage includes information for the period from January 1 to December 31. It has a national geographic coverage for the 39 activities investigated. The data collection is done according to the productive cycle of the crops and their seasonality. Information on livestock, forestry and flowers, is collected once a year. The sample size is 11 379 farms.

f) Quarterly survey on Working Hours

645. The ENAE (Encuesta Nacional a Empresas ENAE) is a quarterly survey on private firms collecting information on persons employed, position at work, hours worked and wages, from the perspective of demand (at the level of firms and establishments of more than 10 employees). This survey aims to contribute to the compilation of the matrix of employment, which compares supply and demand of employment, and to compile the supply and use tables. While carried out by INEC, the survey is financed by the BCCR.

g) Multi-purpose Household Survey (ENAHO).

646. This general household survey includes a module aimed at collecting data on expenditures of households. This module is used for normal non-base years when the five-year ENIGH survey is not available. The questions of the module refer to the periodicity with which the expenditure is made for a set of 75 groups of goods and services, including questions on individual goods as well as on groups of products, each associated with a reference period

647. It is important to emphasize that within the structure of the module, the periods of reference of the consumption expenditure made by households play a very important role in appropriately interpreting the information. The reference periods by type of good or service, or a group of them, are presented in the following table.

Table 7. Reference periods by type of product

Products for which expenditures are made on a weekly basis
Food or food groups among which are grains, meats, dairy products, greens and vegetables, preserved and canned foods, non-alcoholic and alcoholic beverages, fast food, and food and beverages served in restaurants.
Non-food products and services: including household cleansing products, personal hygiene products, expenditure on fuels, and public and private transportation.
Products for which the period of reference is the previous month
Expenditures on potable water, electricity, telephone service, education, recreation, security, health and personal accessories whose payments are usually made every month.
Products for which the period of reference is the last three months
These include expenditures on clothing, footwear, and text books and medical devices such as glasses, hearing aids, therapeutic accessories, etc.
Products for which the period of reference is the last six months
Questions are asked on four groups of articles: toys, board games, musical instruments and sports equipment, and materials for household repairs and maintenance.
Products for which the period of reference is the last twelve months
In this group, questions are asked about expenditures in home appliances, audio, photography, video and computing equipment, vehicles, airplane tickets, and tourist packages, among others.

648. All the information refers to household expenditures. Expenditures of other persons who do not belong to that household are not included, such as domestic service workers or tenants, expenditures made by members of another household for consumption in other households (donations), expenditures on goods and services for productive activities carried out by households (intermediate consumption).

649. Besides levels of expenditure by periodicity for each good, service or group of them, questions are asked about the way in which they are acquired: bought or paid, swapped, own production, taken from family business, in-kind salary, donated or other. For goods and services bought by the household, questions are asked about how much was paid, and in cases when they were acquired in ways other than those mentioned, questions are asked about an assessment of market prices that would have to be paid for the given product or service.

650. The goods or services included in the module are in agreement with the goods and services included in the ENIGH, and they capture, at a disaggregated level of one or more digits, the classification structure of the Expenditure on Individual Consumption by Purpose. The module is intended to estimate household expenditure structure at a group level of the Classification of Individual Consumption by Purpose (COICOP), and is therefore carried out as part of the preparatory activities for expenditure classification according to that classification.

h) National Survey of Micro-enterprises of the Household (ENAMEH)

See chapter 2.

4.3.1.4. Main data sources for institutional sectors

651. Non-financial corporations: sources are based on a combination of administrative sources and surveys. The accounts of Free Zones corporations as well as publicly owned corporations are covered by exhaustive annual accounts collected for administrative reasons and transmitted to the BCCR. Private non-special regime corporations are covered by the annual version of the EEE survey.

652. The BCCR also receives monthly sales tax returns of private corporations from MdH, which it sums up to annual levels.[63] The BCCR also collects statistics on employment and wages of the public and private sector from the CCSS. In the future, BCCR plans to use information from the redesigned quarterly ENAE survey conducted by INEC.[64]

653. *Financial corporations* (including pension funds): sources are based on exhaustive data obtained from regulatory and supervision offices.

654. *General government:* sources are based on exhaustive data obtained from government budgets and financial statements. See chapter 9 for analysis of general government accounts.

655. *Non-Profit Institutions Serving Households:* sources are based on monthly and annual reports to the MdH. These entities are also covered by the EEE.

656. *Households:* employment and wage data are obtained via the records of the Social Security System (CCSS). Base year information is based on the quinquennial household budget survey (ENIGH and ENAMEH).

4.3.1.5. Main sources for the estimation of GDP using the production approach by activity

657. *Agriculture, fishing and forestry*: the monthly agriculture survey gives information on quantities produced. Additionally, administrative records of institutions directly related to productive activities are used: Costa Rican Coffee Institute (ICAFE), Sugarcane Industry Association (LAICA), Rice Corporation of Costa Rica (CONARROZ), National Banana Corporation (CORBANA), and Costa Rican Fishery Institute (INCOPESCA). Since 2014, the quarterly survey on agriculture (ETAPA) was used being to be replaced in 2017 by the National Survey on Agriculture. Calculation of work in progress is made for: pineapple, sugarcane, coffee, cattle and pig livestock, and chicken. Extraction from forest data are obtained from the National System of Conservation Areas (SINAC) and the Forest Resources Information System (SIREFOR).

658. *Mining and manufacturing*: for most of these industries, the main source of information is the EEE. However, when the industry is characteristic of the activity of Free Zone corporations, the exhaustive administrative accounts of these corporations are used. When the industry is known to include informal enterprises, the results are expanded to include an estimate of these activities, based on the confrontation using the employment matrix and the ENAMEH survey. When relevant, a coverage adjustment is introduced based on estimated data for the average output per employed person. When the industry has a very specific organisation (monopoly), specific sources or estimation procedures are applied. This relates to:

- Manufacturing of petroleum (very limited in the recent years): information was directly obtained from the Costa Rican Oil Refinery,
- Manufacturing of water: information is collected from the Community Water and Sewage Administrations Associations (ASADAS), the Costa Rican Water and Sewage Institute (AyA) and of the Public Services Corporation of Heredia. For non-market production of central government entities (SENARA) and

[63]There is a 13% sales tax in Costa Rica, functioning partly like a VAT, but limited to goods and not services.

[64] INEC and the BCCR plan to redesign the quarterly ENAE survey after the year 2018. To this end, they will assess the survey in 2019 in the perspective to design a new survey.

municipalities, the production is calculated from their accounts, in which there is a specific sub-program covering water, sewage and drainage services.

659. *Construction*: four country-level economic activities were created to calculate construction. The method is based on intensive cooperation with the Federated Association of Engineers and Architects (CFIA).

- AE086: Building (residential and non-residential): the first step is the quarterly reporting made by the CFIA of the intention of construction for private use reported by construction professionals. Each intention of construction is then linked to a construction prototype which has been previously defined with the CFIA. A specified prototype represents an input-output relationship which enables calculation of expenditures in material and labour. The second step is the quarterly survey on progress of construction projects for private use (ETAPCP). This survey is outsourced to the CFIA. A sample of projects is drawn for each quarter. The ETAPCP allows determining the progress of the project. Based on the prototype characteristics this allows to determine the value of the GFCF in the relevant quarter.
- AE087: Road and railway construction: The method is based on cost structures for each type of project. Amounts extracted from the administrative records of entities for new construction and maintenance are divided according to cost structures corresponding to each type of work.
- AE088: Construction of public service works and other civil engineering works. Just as in the previous activity, cost structures are created for water, sewage, treatment plants, irrigation systems, electricity generation and transmission projects and telecommunication projects. Data on amounts expensed are distributed according to the corresponding cost structures.
- AE089 Specialised construction services: a cost structure is obtained from the EEE survey.

660. *Services*: for most of the services, the main source of information is the EEE[65]. When the industry includes informal activities, the results are expanded to include an estimate of these activities, based on the confrontation within the employment matrix and the ENAMEH survey. When relevant, a coverage adjustment is introduced based on estimated data for the average output per employed person. For post and telecommunication: the information is directly obtained from the relevant public company, *Correos de Costa Rica*.

661. *Financial services, financial intermediation and financial auxiliaries*: For the Central Bank, production is estimated based on costs (i.e. non-market production), with a breakdown between central banking activities and financial services activities. Financial intermediaries other than the Central Bank are public commercial banks, private commercial banks, mutual savings and credit institutions, savings and credit cooperatives, solidarity associations, and other private financial corporations. The main sources of information on regulated financial entities are the accounting records generated by the General Superintendency of Financial Entities (SUGEF). For other financial entities, surveys are organised by BCCR. Information on commissions is obtained from these sources.

662. *FISIM* is calculated using the recommended 2008 SNA formula based on a reference interest rate. The choice of this reference rate in Costa Rica implies that FISIM on loans is always

[65]Including the recently created and privatised mobile telephone companies.

equal to FISIM on deposits (see Annex 4.A.). It may be worth further investigating this issue although it is already clear that using inter-bank rates is not a viable alternative for practical reasons (BCCR already carried out such calculations but without meaningful results and similar experiences were made in a number of OECD countries) nor does the 2008 SNA prescribe the use of an interbank rate.

663. The General Superintendency of Financial Entities (SUGEF) provides the BCCR with information on balances of loans and deposits by institutional sector and economic activity (the classification of IDs of clients of financial institutions by sectors is carried out by the BCCR), making it possible to calculate the FISIM by users' economic sector and by economic activity; it is therefore possible to identify intermediate consumption, final consumption, and external demand. The FISIM's consumer sectors are Non-financial corporations (public and private), Financial corporations, General Government, Households, Non-profit institutions serving households, Rest of the world.

664. FISIM is allocated in the proportion of balances of deposits and loans by economic sector provided by the General Superintendency of Financial Entities.

665. In general, loans to households are for mortgages and thus considered as intermediate consumption, given that they are expenditures for the production of rental services, which are imputed to the output and final consumption of house owners. Similarly, FISIM on loans granted to households for carrying out other productive activities are treated as intermediate household consumption. FISIM that attaches to other loans for households are classified as final consumption. FISIM on deposits from households is distributed between final and intermediate consumption, using the structure of lending to households by economic activity, excluding mortgages.

666. Entities classified in the Non-Financial Public Sector, the Non-Financial Private Sector, Financial Corporations, the General Government, and Non-profit institutions serving households (NPISHs) have intermediate consumption of FISIM which they use to produce other goods and services.

667. Output of financial auxiliaries is compiled based on the income they receive as a result of commissions. The information is based on exhaustive records of the regulating authorities (General Superintendency of Securities, General Superintendency of pensions, General Superintendency of Insurance) plus direct surveys where necessary.

668. Insurance: Insurance companies are regulated by the General Superintendency of Insurance (SUGESE) which compiles the information used as the basis for the construction of insurance accounts. The National Insurance Institute, a public insurance company has a major role in the market. Given that it is public, it has to submit its budget to the General Controller's Office. Private companies are also covered. The output of insurance services is calculated from the difference between premiums (including premium supplements) and claims. Claims are adjusted, in compliance with the 2008 SNA, by classifying parts of some unusually high claims following catastrophes as capital transfers rather than affecting the calculation of production. The method is based on moving averages and the use of the Hodrick and Prescott filter. Premiums are calculated on an accrual basis.

669. Real estate housing including owner-occupied housing: The housing stock of the base year (2012) has been estimated at the most detailed level according to the 2011 Census, at national, provincial, canton and district level, and by housing characteristics: condominium or gated communities, independent house, horizontal or vertical apartments in condominium, in building, bunkhouse, slum, other. Based on information from the ENAHO (National Household Survey) and the ENIGH (Household Budget Survey), rental estimates by type of dwelling have been made

according to their geographic location and characteristic. Actual rentals have been used to compile the actual rental services.

670. For owner occupied housing, the old method of estimating owner-occupied housing in the base 1991 has been thoroughly improved taking into account house type and geographic location.

671. The housing stock for the year 2011 has been estimated based on information from the 2011 population and housing census, which also allowed to identify if a dwelling is rented or owned, and provided information on geographical location (province, canton and district[66]), as well as on the characteristics of the dwelling, as detailed below:

- Dwelling in a condominium or a private residential complex.
- Independent dwelling, in a row or adjoining (apartments in a condominium).
- Dwelling in a building (vertical condominium or apartment)
- Informal boarding houses or *cuarterías*
- Slum

672. Information from the 2000 and 2011 housing censuses was used to obtain the 2012 stock based on an inter-census rate, which was applied to the 2011 housing stock, identifying both rented and owned housing, as well as housing characteristics and geographic location.

673. As regards the base year 2012, the total value of housing rental was separated as follows:

- Actual housing rental: corresponds to the market output generated by rented housing.
- Imputed housing rental: corresponds to output for own use generated by housing occupied by its owners. A rental equivalent method is used to impute the housing rental.

674. The National Survey on Household Income and Expenditures (ENIGH) and the National Household Survey (ENAHO) provide information on actual rental paid for households according to housing characteristics and their geographic location. The two information sources are analysed and, taking account of their relative strengths, the average actual rental by type of housing was estimated at the most detailed level of geographic location, i.e., at district level.

675. The 2012 housing stock is distributed by district, and the number of dwellings occupied by their owners and those rented are identified, as well as the type of housing. The corresponding annual rental by district is then assigned to the number of dwellings per district according to their characteristics to estimate the total actual and imputed rental value. For the years after 2012, the total actual rental and the total imputed rental are extrapolated from the previous year based on data on construction of new housing and the variation of housing rental prices obtained from the Consumer Price Index (CPI).

676. *Rental value of non-residential buildings* is obtained from the EEE and, for companies in free-trade zones, via the administrative records collected by PROCOMER. The informal part for this industry is extrapolated using the general method described above for the informal activities in manufacturing or services.

677. *Public administration, management of social security*: Non-market output is compiled by adding total costs including depreciation from administrative sources as an approximation of the

[66]There are 478 districts in Costa Rica.

consumption of fixed capital, plus taxes (minus subsidies or grants) on production. Exhaustive information is obtained from all institutions, of central, local and social security entities. When an institution has mainly non-market output, but also has significant market output, two cases occur: when the institution can be split into two branches, the market branch is compiled as a market operator; when the institution cannot be split, there is a positive gross operating surplus attributed to the non-market operator that simply corresponds to depreciation, i.e., the net operating surplus is set to zero.

678. An example of calculation of non-market output and general government final consumption is shown in the table below:

Table 8. Calculation of non-market output – an example

Millions of Colones, current prices

	2012		2013		2014	
	Education	Health	Education	Health	Education	Health
Added value	1,272,457	1,041,446	1,396,418	1,110,183	1,325,443	1,051,862
+ Intermediate consumption	146,178	169,356	175,386	187,465	167,528	181,964
= Total gross output	1,418,635	1,210,803	1,571,804	1,297,648	1492972	1,233,826
- Market output	19,808	38,870	22,043	41,141	21,238	39,614
= Other non-market output	1,398,827	1,171,932	1,549,760	1,256,508	1,471,734	1,194,212
- Other non-market output paid by households	29,880	6,629	32,605	8,794	31,449	8,482
= Other non-market output for personal use (Government consumption)	**1,368,946**	**1,165,303**	**1,517,155**	**1,247,714**	**1,440,285**	**1,185,730**

679. *Research and Development*: The main source of information is the EEE and, in particular for free trade zones, administrative data. However, it is unclear how these sources deal with specific R&D expenditure data, given that R&D is not separated in financial accounts but only in revenues and expenditures as R&S is estimated at the level of an establishment. If costs are not detailed, the output is classified as secondary production. An additional specific treatment is applied for R&D of the three institutions conducting public R&D: Universidad de Costa Rica (UCR), Instituto Tecnologico de Costa Rica (ITCR) and Corporacion Arrocera (CONARROZ). R&D values are obtained by estimating costs, separate from tuition costs. According to the BCCR, when the company does not detail the costs of R&D and the output is treated as a secondary production, non-market output is valued by adding the costs. When R&D of a company represents an important value, the company separates costs in the accounting information and therefore works as a separate establishment. R&D activities of companies located in free trade zones are also covered in some cases.

680. *Education*: Non-market output is compiled as sum of costs. This includes a proxy for the consumption of fixed capital in the form of a reported depreciation when calculations are based on Financial Statements (Ministry of Education, UCR, UNA, TEC, UNED). If the information base is the Execution Budget (CUC, CUL, SINEM, UTN) the sum of the costs does not include the consumption of fixed capital. Coverage includes expenditures for primary and secondary education of the Ministry of Education plus some specific entities (Colegio Universitario de

Cartago, Colegio Universitario de Limon) and expenditures for tertiary education (UCR, Universidad Nacional, Universidad Nacional de Educacion a Distancia, ITCR and Universidad Nacional), consumption of fixed capital in education where available, health and social work and sewage and refuse disposal, sanitation and similar activities. According to the BCCR, consumption of fixed capital is not included in a few cases when it represents non-significant value.

681. *Health and social work*: Non-market output is compiled as sum of costs. This includes a proxy for consumption of fixed capital in the form of depreciation when calculations are based on Financial Statements (IAFA, National Rehabilitation Board). Exhaustive information is obtained from the CCSS and the NPICG. For the private sector part, the EEE is used, together with addition of an extrapolation for informal sector activities, using the general method for estimating the contribution of the informal sector.

682. *Sewage and refuse disposal, sanitation and similar activities*: The economic activity carried out by the municipalities is classified as market production with information on output values derived from budget execution. For the private sector, the source of information is the EEE and the general method for estimating the contribution of the informal sector is used.

683. *Private households with employed persons*: administrative records of the CCSS are used to estimate the amount of persons employed by households and with health insurance in this activity, as well as average remuneration and social contributions paid. Hidden employment is added using the employment matrix method used for the estimation of the informal sector.

4.3.2. GDP by the expenditure approach

4.3.2.1. Household final consumption expenditure (HFCE)

684. HFCE is calculated using Costa Rica Product Standard (PNCR, based on CPC rev 2) as well as COICOP (in 12 divisions, 58 groups, 117 classes) classifications. The base year source for HFCE is the ENIGH 2013. Data for 2013 has been retropolated to the base year 2012 by applying price indices and population indices.

685. As regards normal years and as the ENIGH is only multi-annual, a module asking for final household consumption expenditures was therefore included in the annual National Household Survey (ENAHO), intended to fill information gaps during the years when the ENIGH is not carried out (see above). The results of comparative studies indicate that the periodicity and the way information is entered into the module underestimates household consumption expenditure as compared to the ENIGH. Both sources have similarities in the aggregated structure of consumption by economic activity. The studies showed that at the level of the various articles, the greatest differences are in products that have a lower relative importance within the household expenditure structure.

686. Some components that are structurally not included in the module are added (imputed rental is the most representative case).

687. Expenditures of non-residents in the economy are excluded from household final consumption and included in exports of tourism. Expenditures of residents abroad are included in household final consumption and in imports of tourism.

4.3.2.2. Government final consumption expenditure

688. Final consumption of general government is obtained using the financial statements, budgets, budget execution of all institutions in this sector, with 100% coverage. It is obtained as follows.

- Calculation of individual consumption of non-market services is obtained for public health and education, by subtracting from total non-market output of the producers of these types of services any products sold by the public health system or the public education system at market prices.
- Calculation of collective consumption expenditure by general government is obtained for general public services, public order and safety by subtracting from total non-market output of the producers of these types of services any products sold by the producers at market prices.

4.3.2.3. Gross fixed capital formation

689. Gross public capital formation is obtained via information obtained directly from public institutions on their procurements or own-account construction and import data, as most equipment is imported. Concerning *machinery and equipment*, estimates are derived as follows:

- Transport equipment: amounts of automobiles imported are distributed between final consumption (households) and GFCF (firms) based on the type of importer and information from the MdH on the sales of cars by wholesalers (document D151).
- Other machinery and hardware, radio, television and communication equipment, other equipment n.e.c, are similarly derived from import data subsequently distributed using the D151 document.

690. *GFCF for construction* (residential, non-residential, other structures) is set equal to its output. It is the same for cultivated assets. GFCF for software is obtained from the accounts of enterprises surveyed by the EEE. Gross capital formation is available by type of assets and by industry for the years 2012-16. Costa Rica being involved in the LA-KLEMS project, the BCCR was able to complete the time series since 1991 after the completion of the first part of the project in June 2019.

691. *R&D GFCF of the private sector* is estimated via a sample of firms selected to be surveyed as part of the EEE for firms whose main economic activity is R&D. In the case of firms operating under the free-trade regime, the population consisted of those firms whose main activity is R&D; in addition, for other corporations whose secondary activity is in R&D output was estimated by estimating the relevant costs. Other firms carrying out R&D as a secondary activity are yet to be identified, and estimations of their output remain to be calculated. GFCF in R&D for general government is obtained from accounts of the three institutions concerned: University of Costa Rica (UCR), Instituto Tecnologico de Costa Rica (ITCR) and Corporacion Arrocera (CONARROZ). Estimation is conducted based on sum of costs, excluding current expenditures for education for the two education entities.

4.3.2.4. Consumption of fixed capital

692. The method for estimating consumption of fixed capital distinguishes machinery and equipment, and construction.

693. The method starts with annual time series of values for GFCF in current prices and in previous year prices, which are obtained from the Supply and Use Table. Division of one by the other yields annual price changes that are transformed into a price index with a particular base year (2012). Time series of GFCF are then expressed in base year prices and cumulated over the estimated service lives (13 years for machinery and equipment, 47 years for construction). This yields the gross capital stock in line with the Perpetual Inventory Method. Consumption of fixed

capital (CFC) in constant price is obtained by applying a straight-line depreciation formula in line with these service lives. However, no allowance is made for an asset retirement distribution during the service life. The resulting CFC values at constant prices are then reflated to obtain CFC at current prices. The net capital stock is obtained by deducting consumption of fixed capital from the gross capital stock.

4.3.2.5. Exports and imports of goods

694. The basic source for exports and imports is the standard customs' information: goods exported or imported in HS 2012 classification, CPC Rev.2, Broad Economic Category and PNCR, relevant taxes, cost of insurance, counterpart, type of regime (normal/free trade). This standard source of information is supplemented with tax information by company obtained from the MdH to which each exporting/importing company declares its sales and purchases by counterpart. This system is called DEI. It allows classifying imports by type of use and exports by type of product and regime.

4.3.2.6. Exports and imports of services

695. They are estimated using balance of payments data. There are approximately 135 service exporting firms in Free Trade Zones. They explain around 80% of the total exports of services. The main activities are: software design, call-centres for financial services or other services.

696. Administrative records of imports of goods reported by the General Customs Office are used to calculate freight and insurance costs. The CIF value, the FOB value, freight and insurance costs of merchandise by tariff heading and business are reported in these administrative records. However, in many cases there may be inconsistencies:

- First, when the CIF value is equal to the FOB value, i.e., costs for insurance and shipping are not reported. In this case, a cost for insurance and freight is estimated based on the average costs that appear in records in which a cost is reported for both services.
- Second, where there is a difference between the CIF and the FOB value, but information only appears for one of the two services (either freight or insurance). In these cases, the percentages are used based on the difference between CIF and FOB values according to import records for which costs are reported for insurance and freight, and on which the percentage of the difference that corresponds to each service may be determined.

697. Once the figures are estimated for the cases for which there are inconsistencies, the values for freight and insurance are added to obtain the total of imports, and the sum of the calculations of those services that corresponds to the businesses that provide manufacturing services on physical inputs belonging to third parties are deducted; the calculation of freight and insurance costs is therefore consistent with the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6).

698. To estimate exports of passenger transportation by different methods, information from the Balance of Payments (BOP) Survey, which is applied to specific businesses that provide the services, are used, as well as results from the Survey on Inbound and Outbound Tourism carried out by the Costa Rican Tourism Institute. This last survey is used for imports.

4.3.2.7. Changes in inventories

699. In the 2012 base year data, the BCCR uses information reported by firms in the EEE (in which questions are asked about prices and amounts of inventories at the beginning and end of

the period) to estimate changes in inventories for some products. According to the BCCR, inventory amounts are valued at average prices of the year. However, this information, even if useful for estimating the production at the level of product and firm, remains limited as indicator of changes in inventories for the producers as a whole – these are obtained by applying expansion factors to the information reported by firms in the EEE.

4.3.2.8. Main data sources for volume/price breakdown.

700. Deflation is conducted at SUT level of 183 products and 136 industries. Double deflation (output separately from intermediate consumption) is systematically used to deflate value-added. Deflation of intermediate consumption is done at the level of 171 products.

701. If current values are available, current price output is deflated with an appropriate price index. This is the most frequent case using deflators from the price index project (see Chapter 4).

702. In some cases, if current values are not available, the current value of the previous year is extrapolated with a volume index (source: monthly business surveys), and nominal value is obtained by applying a price index. This concerns retail trade in vehicles, transport, post and telecommunications, insurance, real estate activities, other business activities, health, sewage and other services. Intermediation services with explicit pricing are deflated using the CPI. Volume FISIM is moved based on balances deflated by the CPI.

703. Non-market value added at previous year's prices is estimated by adding intermediate consumption per product deflated by the corresponding price index to the rest of the nominal value of previous year's value-added extrapolated using the employment variation rate. This amounts to an input-based measure of volume output (without capital inputs).

704. Household final consumption expenditures are deflated using the CPI. In 18% of cases, the general CPI is used as a deflator in the absence of a specific price index.

705. Imported GFCF in equipment is deflated using import price indices. The volume of GFCF in construction is obtained by applying directly prices of the previous year to quantities of the current year.

706. Exports are deflated by an export price index is a price index (not a unit value index), based on prices registered in the exports' invoices for a sample of products from a sample of exporters. The import price index is a variation of the hybrid approach explained in the "Export and Import price index manual, theory and practice" (United Nations, IMF, ILO, OCDE, Eurostat, the World Bank, 2009), page 74, paragraph 2.10. The universe of commodities is split in two segments:

- The first one includes those commodities which are not subject to quality changes, but only to small variations in quantifiable price-determining characteristics. These commodities are measured primarily by unit values (e.g. corn). Identification of these relative homogenous products is achieved by accounting for characteristics such as country of origin, new or used code, or identification of importer. Registers on vehicle imports include brand, year, type of fuel, number of doors, type of traction, type of transmission, code grouping (according to description), etc.
- The other segment of the universe of commodities corresponds to those commodities that are very heterogeneous or unique because of their size and complexity, and to those commodities that are object of significant change in their physical characteristics (e.g. pharmaceutical products, telephones). This segment is treated with the price information in the import invoices that contain detailed descriptions of each imported good along with its price per unit.

707. The overall index derived as a weighted average of the two types of indicators.

708. Tourism services are deflated using the US CPI.

4.3.3. Compilation of Supply-Use Tables for annual non-financial accounts

4.3.3.1. Current price SUTs

709. GDP estimations using the output, expenditure and income approaches do not correspond to independent estimations, but are derived simultaneously from an integrated supply-use table (SUT). SUTs are thus integral part in the calculation of national accounts. Furthermore, they are derived in both current and previous year's prices, which constitutes good national accounts practice.

710. The SUTs in 183 products (in CCP rev 2) and 136 industries (ISIC 4) of the 2012 base year set of accounts systematically distinguish Free Trade Zones and Normal Regime Zones, and give information on the imported/domestic component of the use of each category of product. The BCCR has compiled for the base year 2012 a complete I-O table for 2011 (77 x 77 products, aggregated in 37 x 37 products), derived from the new SUTs.

711. Balancing of the SUTs is achieved through a detailed process for each of the 183 products, at current and previous year's prices. For every product balance a distinction is made between free zones and non-free zones. The balancing process takes account of the reliability of the data, favour more reliable estimates over less reliable ones. Adjustments can occur in all parts of the SUT as well as on values, volume or price indices. A separate import matrices is part of the system.

712. Each balance contains a check point where discrepancies between intermediate consumption of the product and the total intermediate consumption of economic activities are analysed. The origin of the discrepancy is then analysed, which may be caused by:

- Inadequate classification of some product in intermediate consumption by firms.
- Smuggling of some products.
- Inadequate classification of the tariff category by customs agencies.
- Under-valuations in final household consumption.
- Inconsistencies between the prices used for estimating the price valuations at prices of the previous year between supply and demand components.
- Small costs are not explicitly reported in intermediate consumption by firms, but considered important for the economy as a whole, for instance spending in plastic, metal and paper products.

713. Adjustments are made for each of the factors that cause a discrepancy, for example smuggling of certain products such as beans may lead to adjustments on imports. In other cases it is necessary make adjustments for transfer prices or with products such as liquors and cigarettes some adjustments are needed for the under-valuation on the final household consumption reported in surveys. As can be seen from the sources of discrepancies that are examined, the balancing process of the SUTs is the moment when adjustments for informality are introduced into the Costa Rican national accounts. This constitutes good practice.

714. An import matrix is available which permits the identification of the destination of imports by economic activity; for instance, in the case of plastic, paper and metal products, the imports matrix makes it possible to distribute the discrepancy between imports and their uses among different economic activities. Further, the fact that different prices are used for supply components

and use components for some products may lead to inconsistencies between supply and use estimates in previous year prices and requires some adjustments to prices indexes.

715. It also turned out, after consulting with firms, that inconsistencies in some products were the result of an inadequate classification of the tariff category by customs agencies. National accountants then reallocate for their purposes.

4.3.3.2. Trade margin coefficients

716. Trade margin coefficients are calculated for each product according to its different uses: intermediate consumption, final consumption, capital formation and exports. The sources are EEE and tax returns.

4.3.3.3. SUTs at previous years' prices

717. The method to arrive at volume growth estimates is based on the compilation of SUTs at previous year prices. Price indices are provided by the Price Indexes Project. Volume indices are based on the monthly surveys described previously. Indices of turnover are estimated using administrative tax records of the MdH. Accounts at previous year's prices are then chain-linked.

4.3.4. Exhaustiveness

718. The old method of estimation of the informal sector in the base 1991 was thoroughly improved using the newly developed "employment matrix" (EM). The EM is the result of the combination of several sources with the objective of covering employment in the formal and the informal sector, and deriving from it a value-added of the informal sector. An example of the EM for 2012, the base year, has been transmitted to the OECD. Annual versions of this matrix were generated for the following years.

719. The information on employment and revenues from work (compensation of employees and mixed income) in the formal sector (so-called "demand side") is based on the administrative data of the ARCSS (Administrative Registry of the CCSS, the social security institution of Costa Rica). The so-called "supply side" of estimates of employment essentially originates from the 2011 population census and ENAHO and ENIGH household surveys conducted by INEC.

720. The first step of the method consists in creating a vector of employment by Economic Activity (EA) (using the classification into 136 activities, as applied by the BCCR) based on the results of the 2012 ENAHO. This survey has the most extensive coverage in terms of households. Employment in each EA is broken down between: Wage earners, Self-employed, Employers, Family collaborators, and other form of unpaid employment. This vector of employment from the ENAHO is confronted with the 2011 Census, in order to obtain an estimate of total jobs (formal and informal) by EA. For each category, an estimate corresponding to formal jobs is obtained using the ARCSS. The difference between total jobs and formal jobs represents the informal jobs. The employment matrix allows therefore to obtain n an annual estimate of informal employment based on the criterion of not being part of the social security system.

721. The second step of the method consists in creating a vector of income per job. For each EA and each type of employment, all the sources that contain salary data are analysed to obtain an average salary per job. [67]

[67]To obtain the monthly average income of wage earners, the total of wages paid is divided by the number of employees and then by 13 (because in addition to the 12 monthly payments, in Costa Rica workers receive a Christmas bonus called an *aguinaldo*). The mathematical formula to obtain this figure is:

722. Except for family collaborators to whom no income has been attributed, the income of the other categories is obtained by multiplying the total jobs by the average income per job in formal employment. This results in applying an income to the informal jobs equal to the one of the formal jobs. The imputed measure is a measure of income that includes social security payments whereas a net measure would be preferable. Also, Costa Rica does not have detailed information on output and intermediate consumption for these groups of informal employment. This is the reason why it is not possible to obtain from this exercise an estimate of the additional value-added due to the incorporation of the informal sector in Costa Rica's GDP. However, as indicated in the section on the balancing of SUTs, GDP as a whole reflects the value-added from informal activity.

4.3.5. Timeliness - annual non-financial accounts

723. The current set of annual goods and services accounts is disseminated twice per year, thus coinciding with the publication of the Macro-Economic Projections, in January and in July. While estimates for year Y-1 are already published in January of Year T, the OECD considers this to be a forecast, and not a first publication. The real publication of observed national accounts statistics relates to year Y-2, leading to a delay of 13 months for the first publication of annual national accounts. This first estimate is then revised in July of the same year, on the occasion of the second Macro-Economic Projection. Partial institutional sector accounts become available at Y + 18 months.

724. There is no entry in the release calendar for the publication of annual national accounts.

4.3.6. Revision policy

725. While there is no long-term strategy for a regular update of base years, a new base year is already scheduled for the year 2017 (to be published in 2020). In this perspective, the EEE for the non-financial private sector has been extended to 1800 businesses and the ENIGH survey on household income and expenditure was conducted in 2018.

726. Documentation is now available that that explains changes in GDP and its components as a result of moving to a new base. Such documentation is all the more important as some of the adjustments have been important. For instance,

- Value-added of *actividades immobiliares* was upward revised by 227% due to the newly available results from the dwellings census. This had a large impact on estimates of owner-occupied housing?
- Value-added of *servicios financieros* was revised downwards (-25%) as a consequence of a revised scope of the FISIM calculation that now excludes securities.
- Imports as well as export values were also revised downwards by a quarter, mainly reflecting the new treatment of goods for processing in the 2008 SNA.

727. As a number of important time series that were developed under the 2012 base are relatively short, users will appreciate a linking of the series under the old and new base so as to be able to work with longer time series.

$Monthly\ average\ income = MS\ /\ QA/\ 13$, where: MS = Total of wages paid to wage earners, QA = Number of wage earners, 13 = Amount of monthly payments received through the year.

4.3.7. Interpretability (Metadata requirements)

728. Costa Rica has progressively made available methodological documentation in English on the BCCR website. This includes in particular:

- Costa Rica national accounts: measuring annual value added in terms of volume
- Trade Enterprise characteristics
- Product Margin Ratios and Trade Channels
- Gross Fixed Capital Formation by Economic Activity for Costa Rica 2012-2013
- Costa Rica: An extended Supply - Use Table
- Costa Rica Import Matrices Compilation
- Costa Rica: Services on physical inputs owned by others
- Environmental Accounts Presentation
- Costa Rica´s Monthly Index of Economic Activity (IMAE)
- Quarterly National Accounts Methodology
- Financial intermediaries' weighted offered rate and Effective rate in dollars
- Costa Rica's System of National Accounts within the Framework of the 2012 Baseline Year Change.

729. At the end of 2017, BCCR published the following documents:

- Exports of services and their major destination markets (available on the BCCR website)
- Matrix of social accounts 2012 (available on the BCCR website)
- Chain-linked indices (available on the BCCR website)
- Water accounts for decision making: the case of the public utility company of Heredia
- Water accounts2012
- Forest accounts2011-2013
- Energy accounts2011-2013

4.4. Quarterly non-financial accounts

4.4.1. Coverage

730. The tables transmitted by the BCCR in early April 2019 cover the following set of quarterly data:

- T0101: Quarterly GDP estimates under the production approach available from 1991Q1 to 2018Q4 for both current prices and chained volume estimates (reference year 2012), seasonally adjusted and non-seasonally adjusted.
- T0102: Quarterly GDP estimates under the expenditure approach, available from 1991Q1 to 2018Q4. Main demand components and GFCF broken down by asset

have been provided for both current prices and chained volume estimates (reference year 2012), seasonally adjusted and non-seasonally adjusted. The split between final consumption expenditure of households and NPISHs is not available. BCCR informed the OECD that individual and collective final consumption of general government would be provided separately.

- T0107: Disposable income, saving and net lending borrowing, at current prices, available from 1991Q1 to 2018Q4, both seasonally adjusted and non-seasonally adjusted.
- T0117: Household final consumption expenditure by durability, available from 1991Q1 to 2018Q4 for both current prices and chained volume estimates (reference year 2012), seasonally adjusted and non-seasonally adjusted. The breakdown by durability has been provided for Households including NPISHs and on a national concept basis.

731. In addition, INEC started to transmit quarterly data for population and employment in March 2017, albeit with limited coverage. The last transmission, in late February 2019, included the following data:

- T0110: Population and Employment, available from 2010Q3 to 2018Q4, in persons, non-seasonally adjusted.
- T0111: Employment by industry, breakdown by ISIC 4/A10, available from 2010Q3 to 2018Q4, in persons and in hours worked, non-seasonally adjusted. Data refers to the national concept instead of the domestic concept.

732. The following table was not transmitted for quarterly data, but is available on an annual basis: T0103: GDP income approach and compensation of employees by industry, current prices.

733. No table for quarterly sector accounts was transmitted, because these tables are not compiled in Costa Rica.

4.4.2. Compliance with the concepts, definitions, classifications and recommendations of the 2008 SNA

734. Quarterly national accounts are benchmarked on annual accounts and are thus deemed to be compliant with the 2008 SNA. This includes allocation of FISIM between final demand and intermediate consumption.

Methods to compile Costa Rica's non-financial quarterly accounts

735. The compilation of quarterly national accounts is based on a well-established calibration method: when a quarterly proxy indicator is found for a particular domain, calibration consists of regressing the annualised indicator against the corresponding value in the annual accounts, generating a simple annual relation between the indicator and the annual account. This relation is applied to the quarterly indicator to generate the quarterly national accounts variable.

736. When there are no quarterly indicators, the method is limited to a quarterly interpolation of the annual account, using a smoothing function ("Ecotrim without an indicator"). Such a method does not incorporate any quarterly information in the accounts and cannot be considered as a substitute to arrive at an adequate set of quarterly accounts. Approximately 40% of value added is calculated without a quarterly indicator. BCCR has only a limited set of indicators for measuring the output of goods producing industries and four important service activities lack any quarterly indicator: real state, public administration, restaurants and community, and social and

personal services. However, it has been indicated that this situation will be addressed with a new "Services Survey Project" that will start in the second semester of 2019 and first results of this survey being available by the beginning of 2021.

737. Volume estimates are compiled using previous years prices chained with 2012 as reference year.

738. On the production side, industry-level quarterly estimates are classified in ISIC Rev.4 at the one-digit level. Main methods are:

- *Manufacturing:* estimates are based on the monthly index of economic activity IMAE (see Chapter 6).
- *Agriculture:* data on quantities harvested, sold on the local market or exported, are obtained from government offices, customs records, and records from producers or traders of agricultural products and processing industries. Data on quantities of coffee harvested are estimated by *Instituto del Café*, quantity of bananas exported is provided by *Corporacion Bananera Nacional*, quantity of sugarcane processed is provided by *Liga Agricola Industrial de la Can de Azucar*, monthly crops of rice are provided by *Officina des Arroz*, while the remaining data on agricultural products and livestock is provided by *Consejo Nacional de Produccion* and Ministry of Agriculture. Data on exports of non-traditional agricultural products are estimated by BCCR, based on customs' data.
- *Construction:* based on information from construction permits, particularly data on the surface area of new constructions, as well as an average timetable of project implementation. A survey conducted by a firm of engineers and architects is used to determine the cost structure of each type construction in current prices and as chain volume estimates. An average time lag is incorporated into the calculation. The allocation of the cost components through time of all the permits from the same prototype and month, allows for the estimation of the chain linked output volumes.
- *Electricity:* monthly administrative records provided by *Instituto Costarricense de Electricidad*.
- *Trade*: data on sales reported by a sample of 400 commercial enterprises to the MdH, deflated using appropriate price indices.
- *Transportation, storage and communication*: sources include statistics on tons of merchandise moved in ports, number of tourists entering and leaving the country, current values of on-line communication which are provided by telecommunications superintendence and deflated by quality-adjusted price indexes, passengers/kilometres and cargo transported by plane, monthly imports and exports at previous year's prices.
- *Financial intermediaries:* the volume indicator for FISIM is based on the value developments of deposits and loans, deflated with the CPI. For financial services explicitly charged, statistics on charges are deflated with the CPI, in absence of a specific price index for commissions.
- *Business services*: volume estimates are based on quantities of services (number of legal services, number of advertisements). For engineering and architectural services, the index of construction is used as an indirect indicator.
- *Hotels:* estimates are based on output reported by producers.

- *Real estate services, public administration services, communal, social and personal services*: no quarterly indicators are available. They are estimated by interpolation of annual forecasted figures (for the current year) or annual national accounts data (for past years).

739. On the expenditure side, the main features of quarterly estimates of GDP are:

- *Final consumption of households:* estimates are based on a synthetic indicator covering the consumption of durable goods, semi-durable, non-durable goods and services, which cover 84% of total household final consumption. The rest is estimated via Ecotrim without an indicator.
- *Final consumption of government:* estimated at current prices using government administrative sources. At constant prices, Ecotrim is used without an indicator.
- *GFCF:* for investments in construction by the private sector, the results of the quarterly survey of progress in construction projects are used to compile an index of construction. For investments in new structures by the public sector there is no specific indicator, so Ecotrim without an indicator is used. For machinery, imports of machinery are used, deflated by US price indices.
- *Exports and imports*: Customs data (for goods) or BoP data (for services) are used. Deflation is based on export and import (unit value) price indices.
- *Changes in inventories:* mainly obtained as a residual.

740. At the time of writing, Costa Rica does not compile quarterly institutional sector accounts.

4.4.3. Timeliness

741. First quarterly estimates are published at Q + 90 days. There is an entry in the release calendar for the publication of quarterly national accounts.

4.4.4. Revision policy

742. The data are preliminary at the time they are released for the first time. Data become final two years after the first release.

4.4.5. Interpretability (availability of metadata)

743. A description of the quarterly national accounts methodology following the adoption of 2008 SNA is available on the BCCR website.

4.4.6. Data and metadata transmission of quarterly non-financial accounts

744. Data is transmitted regularly to the OECD.

4.5. Overall assessment of non-financial national accounts

745. The Costa Rican national accounts produced by the BCCR were assessed to determine how well they satisfy international standards, in particular the 2008 SNA, and the needs of users. The adequacy of the data inputs; the extent to which best practice methods are used by the BCCR; and the extent to which activities falling within the production boundary defined by the 2008 SNA are comprehensively measured by the estimates of GDP, i.e. exhaustiveness, were also evaluated.

4.5.1. Annual non-financial accounts

746. The BCCR has made major steps forward to improve their national accounts, the most important one by introducing the 2012 benchmark year, thus providing a solid and detailed basis. At the time of writing this review, the BCCR is instructed to implement a new benchmark every five years, as recommended by CSSP in 2017, and is rebasing the national accounts to a new 2017 base year with the aim to publish revised time series in 2020. To this end, BCCR and INEC redesigned several important surveys in 2017-2018, including the National Agriculture Survey (ENA) and National Survey of Microenterprises of the Household (ENAMEH). Costa Rica should also be commended for fully embedding the GDP compilation process in a Supply-Use framework for both current and previous year prices. This is very good practice as it ensures consistency, enhances the reliability of overall results and permits introducing adjustments for informal economic activity in an informed way. The accounts follow the 2008 SNA in nearly all important aspects.

747. Some important gaps remain, however, and progress should be made in the following areas:

- Annual institutional sector accounts: (i) carry out backward calculations to the year 2000; (ii) enhance timeliness by publishing the first release at the latest, in September of year T + 1. The BCCR plans to release annual institutional sector accounts with time series starting in the year 2000 in 2020.
- The computation of capital stocks and consumption of fixed capital should be gradually improved by using a more detailed asset breakdown and by introducing a retirement distribution (or using a geometric age-price profile). In this context, the participation by Costa Rica in the Latin America KLEMS project for productivity measurement is welcome. The BCCR plans to release a first set of capital measures by end 2019.
- Balance sheets for non-financial assets per institutional sector. The BCCR expects to produce them by end 2019.
- The measurement of Consumption of fixed capital that is used in estimates of public sector output should progressively be based on standard national accounts methodology rather than public sector accounts (at historical costs).
- Volume output of non-market activities are essentially estimated based on an input method assuming "zero productivity change". For some important non-market producers Costa Rica may want to explore the possibility to develop "output based" indicators.
- The calculation of FISIM uses a reference rate whose calculation implies that FISIM on loans is always equal to the FISIM on deposits. This is not at variance with the 2008 SNA and practices among countries vary as well but the reviewers invited in 2017 Costa Rica to explore some existing approaches. The BCCR studied the methodologies implemented in several Members (the USA, Australia, Chile, New Zealand, and Colombia) and decided to implement the US approach.

4.5.2. Quarterly non-financial accounts

748. Quarterly national accounts are benchmarked on annual accounts and are thus also compliant with the 2008 SNA. Release of quarterly data takes place at Q+90 days and covers main

aggregates with some breakdown. Both current price values and chained volume measures are provided. Improvements in the following areas are important:

- At the time of writing this report, about 40% of the quarterly GDP series are estimated via pure mechanical interpolation. BCCR should put in place a plan for the extension of monthly or quarterly indicators so as to reduce the part of quarterly series that are not based on independent observations. BCCR indicated that it will start a new "Services Survey Project" in the second semester 2019 with results expected in early 2021.
- The timeliness of preliminary quarterly estimates of GDP and main aggregates need to be improved to bring it closer to OECD best practice of Q+45 days. Since 2018Q2, BCCR already compiles quarterly estimates at Q+60 days but for internal purposes only. In the near future, BCCR should aim at reaching first estimates after Q+45 days.
- Costa Rica should formulate and disseminate a revision policy for quarterly accounts. The BCCR committed to implement a revision policy along with the release of quarterly national accounts with the 2017 benchmark year in 2020.
- As a longer-term project, the development of quarterly sector accounts may be envisaged.

Annex 4.A. Calculation of Fisim in Costa Ricas National Accounts

749. FISIM is calculated by applying a reference interest rate to monthly credit and deposit balances, which are then compared to the interest earned and effectively paid by financial institutions. The calculation is as follows:

$$FISIM\ on\ loans = I_L - (R_R * L);\ FISIM\ on\ deposits = (R_R * D) - I_D$$

$$Total\ FISIM = FISIM\ on\ loans + FISIM\ on\ deposits$$

750. In this computation, I_L and I_D is the flow of interest on loans and deposits, respectively, R_R is the reference rate and L and D are the stocks of loans and deposits. This formula corresponds to the recommendation of the 2008 SNA.

751. The reference interest rate is calculated as a weighted average of the implicit active and passive rates of financial entities, and the weights used are the average balances of the same operations. The reference rate is calculated by type of currency.

$$R_R = \frac{I_L + I_D}{L + D}$$

752. If this relation is used to compute FISIM on loans and deposits, it is apparent that the values are of equal size:

$$FISIM\ on\ loans = I_L - (R_R * L) = I_L - \frac{I_L + I_D}{L+D} L = \frac{I_L D - I_D L}{L+D}$$

$$FISIM\ on\ deposits = (R_R * D) - I_D = \frac{I_L + I_D}{L+D} D - I_D = \frac{I_L D - I_D L}{L+D}.$$

Chapter 5. PRICE STATISTICS

5.1. Background

753. The objective of the OECD's Price Statistics Programme is to disseminate core series on prices that are comparable between countries, analytically useful, timely and available for a period as long as possible. This chapter focuses on the Consumer Price Index (CPI), the Producer Price Index (PPI), Residential Property Price Indices (RPPI) and Purchasing Power Parities (PPPs).

754. This assessment is based on the documentation obtained through the first OECD fact finding mission (16-20 February 2015), the examination of the existing national and international sources for Costa Rican price statistics and data and metadata supplied by Costa Rica via the OECD questionnaires. The INEC and the BCCR contributed actively to the review process.

5.2. Consumer Price Index and Producer Price Index

5.2.1. OECD data and metadata requirements for CPI and PPI

5.2.1.1. Coverage – CPI

755. Every month, the OECD Statistics and Data Directorate (SDD) publishes CPI series as part of the OECD's Main Economic Indicators publication and also through the OECD CPI News Release (which is drafted last Friday of each month). These series are considered CPI target indicators and are compiled with the aim of showing comparable CPI data across countries in terms of analytical use, timeliness and availability.

756. The twenty-five CPI target series are defined following the COICOP Classification:

- CPI All items – COICOP 01 to 12;
- CPI All items less Food less Energy (Core inflation) – COICOP 01-12 less COICOP 01. 04.5 & 07.2.2;
- CPI Energy – COICOP 04.5 & 07.2.2;
- CPI Services;
- CPI Goods;
- CPI Services less Housing – Services less COICOP 04.1, 04.2 & 04.3.2.
- CPI Housing – COICOP 04.1, 04.2 & 04.3;
- CPI Food and non-alcoholic beverages – COICOP 01;
- CPI Alcoholic beverages, tobacco and narcotics – COICOP 02;
- CPI Clothing and footwear – COICOP 03;
- CPI Housing, water, electricity, gas and other fuels – COICOP 04;
- CPI Actual rentals for housing – COICOP 04.1;
- CPI Imputed rentals for housing – COICOP 04.2;
- CPI Maintenance and repairs of the dwellings – COICOP 04.3;

- CPI Water supply and miscellaneous services relating to the dwelling – COICOP 04.4;
- CPI Electricity, gas and other fuels – COICOP 04.5;
- CPI Furnishing, household equipment and routine household maintenance – COICOP 05;
- CPI Health – COICOP 06;
- CPI Transport – COICOP 07;
- CPI Fuel and lubricants for personal transport equipment – COICOP 07.2.2;
- CPI Communication – COICOP 08;
- CPI Recreation and culture – COICOP 09;
- CPI Education – COICOP 10;
- CPI Restaurants and hotels – COICOP 11;
- CPI Miscellaneous goods and services – COICOP 12.

757. Some countries provide the OECD only with the component series of the CPI target indicators. In order to publish comparable series and to calculate zone aggregates, the OECD then computes CPI target indicators using weights and component series provided by the national statistical office. This is particularly frequent for the series CPI Energy and CPI All items less Food less Energy.

758. The Secretariat calculates monthly CPI zone aggregates including all OECD member countries and labelled OECD-Total for the four following CPI target series: CPI All items, CPI Food, CPI Energy and CPI All items less food less energy. These CPI zone aggregates for OECD-Total are shown with time series starting in January 1970. The OECD-Total refers to all OECD countries from January 1995; prior 1995 some OECD countries are not covered.

759. The Secretariat requests as long a time series as possible of historical CPI data (the best would be from January 1970 with a minimum required length from January 1995) and maintains CPI series from 1970 or earlier for most countries. Moreover, it is recommended that countries disseminate all CPI series with a fixed common reference period on their website in English.

760. The Secretariat as of March 2018 is collecting or calculating series on contributions to CPI annual inflation for OECD member countries. Monthly time series are published on online database OECD.Stat and are also included into monthly OECD CPI Press release.

761. Requested level of detail for contributions is identical with CPI target series, i.e. the minimum level of detail is as following: CPI All items; COICOP 01; COICOP 02; COICOP 03; COICOP 04; COICOP 05; COICOP 06; COICOP 07; COICOP 08; COICOP 09; COICOP 10; COICOP 11; COICOP12; CPI Energy and CPI All items less Food less Energy.

762. Time series on contributions to CPI annual inflation are either calculated and directly provided by the National Statistical Offices, or are based on OECD calculations using monthly CPI time series and the respective annual expenditure weights provided by OECD member countries. Series on contributions should ideally start from January 2010. If contributions are directly provided by country series should be published and transmitted at the same time as CPI series.

5.2.1.2. Coverage – PPI

763. Only a limited number of output PPI series are collected by SDD, in particular the service sector is not covered. The choice of these series is governed by analytical usefulness, comparability and availability in a majority of OECD countries. Much more than what happens with the CPI, the scope and compilation practices of PPI series vary between countries. To accommodate these different practices in the OECD member countries, 13 series have been defined as a target. For each series, two variants exist: PPIs over goods delivered to all domestic and foreign markets ('total'), and PPIs for goods delivered to the domestic market only ('domestic'). Each of the 13 target series belongs to one of the three different categories of PPIs, as reported below.

764. The first is defined around economic activities and provides an industry dimension. PPIs are grouped with regard to the higher level of the ISIC Rev.4 classification (section B to N) which classifies producer units according to their kind of activity, mainly on the basis of the principal class of goods produced or services rendered. The series considered are as follows:

1. PPI by Economic Activity for both total and domestic markets:

    - Total industry (ISIC Rev.4, Sections B, C, D – corresponding to NACE Rev. 2, Sections B, C, D);
    - Mining and quarrying activities (ISIC Rev.4, Section B – corresponding to NACE Rev. 2, Section B);
    - Manufacturing (ISIC Rev.4, Section C – corresponding to NACE Rev. 2, Section C);
    - Manufacture of food and beverages products (ISIC Rev.4, Section C10 – corresponding to NACE Rev. 2, Section C10).

765. The second category of PPIs classifies producer prices by similarity of end use or material composition, without regard to the industry of origin. This set of PPIs has been defined in terms of Main Industrial Groupings (MIGS) which provide a breakdown of a group of industries (Sections C to E inclusive of ISIC Rev. 4 classification) by type of use. They are listed below.

2. PPI by Type of Commodity for both total and domestic markets:

    - Consumer goods;
    - Durable consumer goods;
    - Non-durables consumer goods;
    - Investment goods;
    - Intermediate goods;
    - Energy.

766. The third category of PPI is defined by stage of processing. This structure classifies goods and services according to their position in the chain of production.

3. PPI by Stage of Processing for both total and domestic markets:

    - Primary products - Raw (or unprocessed) materials;
    - Intermediate goods;

- Finished goods.

767. PPI by stage of processing are only available for five non-European OECD countries: Australia, Canada, Japan, Korea and the United States. European countries generally provide PPIs by economic activity and by type of commodity. It is not always possible for countries to supply PPI data for both the domestic and total markets.

768. The Secretariat calculates monthly PPI zone aggregates including all OECD member countries and labelled OECD-Total for the following PPI target series: Domestic PPI for Manufacturing. This PPI zone aggregate for OECD-Total is shown with time series starting in January 1982. The OECD-Total refers to all OECD countries from January 1995; prior 1995 some OECD countries are not covered.

769. The Secretariat requests as long a time series as possible of historical PPI data (the best would be from January 1970 with a minimum required length from January 1995 for Domestic PPI for manufacturing) and maintains PPI series from 1970 or earlier for most countries. Moreover, it is recommended that countries disseminate all PPI series with a fixed common reference period on their website in English.

5.2.1.3. Compliance – CPI and PPI

770. The points of reference for the methodological assessment, or "compliance", are the international standards. In particular, the current international guidelines and recommendations for the compilation of CPI are those adopted by the Seventeenth International Conference of Labour Statisticians held in Geneva in December 2003. The "*Consumer price index manual: Theory and practice*[68]*",* (hereafter referred to as the *International CPI Manual*) was jointly produced by the International Monetary Fund (IMF), the OECD, the International Labour Organisation (ILO), the Statistics Office of the European Commission (Eurostat), the United Nations Economic Commission for Europe (UN-ECE) and the World Bank, in 2004. The basic reference for PPIs is the 2004 "*Producer price index manual: Theory and practice*"[69], (hereafter referred to as the *International PPI Manual*), also produced by the IMF, OECD, ILO, UN-ECE and World Bank.

5.2.1.4. Interpretability (Metadata requirements) – CPI and PPI

771. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet.

772. For prices statistics, the OECD requires information on the concepts and scope of the index, expenditure weights and their sources and sampling, price collection and index calculation methods.

[68]ILO/IMF/OECD/UNECE/Eurostat/The World Bank, "Consumer price index manual: Theory and practice", Geneva, International Labour Office, 2004:

http://www.ilo.org/public/english/bureau/stat/download/cpi/prefcpi.pdf

[69]ILO/IMF/OECD/UNECE/Eurostat/The World Bank, "Producer price index manual: theory and practice", Washington, D.C., International Monetary Fund, 2004:

http://www.imf.org/external/pubs/ft/ppi/2010/manual/ppi.pdf

5.2.1.5. Timeliness – CPI and PPI

773. All CPI series required by the OECD for the monthly 'OECD Consumer Price Index press release' should be made available on a timely basis in order to meet the schedule of the News Release, which is usually finalised the last Friday of the month following the reference month (i.e. between the 26th and 31st day of the month).

774. In terms of timeliness requirements for PPI, it is important that countries provide data or that data be available at the same time or immediately after they are released nationally. Ideally, PPI data should be made available within one month after the reference period.

775. It is also recommended that fixed and unchangeable release dates for the CPI and PPI be published in English at least 12 months in advance. Such advance announcements ensure transparency and strengthen the perception of objectivity of the data dissemination.

5.2.1.6. Data and metadata transmission – CPI and PPI

776. The Secretariat very much encourages countries to participate in the project to disseminate short-term economic statistics via SDMX. This approach lessens the burden of data transmission for countries and for the OECD.

777. Methodological information on both CPI and PPI target time-series should be transmitted by countries in the OECD questionnaires. The Secretariat recommends that all metadata be made available, in English, on the internet to strengthen transparency and facilitate the use of the price statistics by external users.

5.2.2. Evaluation of the CPI of Costa Rica

778. In accordance with the national statistics legislation, INEC is responsible for the compilation and dissemination of the CPI in Costa Rica. In July 2015, INEC released a rebased index using June 2015 as base period, with many important features: updated weights, extended geographical coverage, improvements in the compilation of water, electricity and telecommunications sub-indices, compliance with COICOP, improvement in the collection of basic prices by the use of modern software and tablets, etc.

5.2.2.1. Coverage – CPI

779. INEC provided the OECD with the CPI All items time series starting in January 1976 and this meets the OECD requirements in terms of time coverage for the CPI all items. Additionally, INEC provided the twenty-five CPI target series as defined above with data starting in January 1995 (except for Maintenance & repairs of the dwellings (COICOP 04.3) starting in July 2006).

780. INEC provided the OECD with the annual expenditure weights starting from 1995, compatible with the COICOP classification.

781. The CPI data are shown with a fixed reference period (i.e. June 2015=100). Data are presented in the press release as an index, as percentage change on the previous period, change from January of the current year and change over the last twelve months.

782. INEC has kindly agreed to provide Secretariat on monthly basis with series on contributions to CPI annual inflation with the level of detail as requested by the Secretariat. Dataset with CPI contributions to annual inflation was transmitted to the Secretariat mid-June 2019.

5.2.2.2. Compliance – CPI

783. The CPI has been compiled in Costa Rica since 1936. There has been seven generations of CPIs, with different base periods, the latest one being the CPI based in June 2015, succeeding to the CPI based in July 2006. The periodicity is monthly. In the previous index (based in July 2006), the geographical coverage was the 114 urban districts of the Central Region of Costa Rica (provinces of San José, Alajuela, Heredia and Cartago). Ten cities and urban areas in different provinces in Costa Rica were integrated into the geographic coverage, thus extending it to all urban areas in the country. With this extension, the CPI represents 73.05% of the population and 82.01% of households expenditures. On this occasion the INEC staff working on the CPI has been doubled up to 22, and tablets have been introduced for the collection of prices. All urban socio-economic strata are represented in the CPI.

784. The CPI survey is based on 28 000 individual price quotations collected each month, from 2 810 outlets and 290 houses for rent. The selection of outlets is based on the business register maintained by INEC and expert advice. The number of establishments surveyed for each basic category was determined from the amount of price quotations for each item in the previous CPI, adjusting it according to price variability.

785. Regarding services that are provided informally, only certain domestic services are priced, otherwise there are no quotes of prices of services informally delivered. Prices of informal services should be collected, in particular if they represent a significant share of expenditures and if they are included in the weights. Another gap in outlets is internet sales that are not included in the current CPI sample. INEC has indicated that their integration is one of the activities planned for the improvement of the CPI.

786. There are 315 basic expenditure categories, each one including several basic varieties (there are 529 basic varieties). The 315 basic expenditure categories were included based on one of the following criteria: (i) they represented 0.05% or more in the expenditure of the reference household; or (ii) they are consumed by at least 5 % of the households. There are 93 sub-classes, 58 classes, 33 sub-groups and 12 divisions or major groups. The classification used by the CPI base June 2015 published by INEC in July 2015 is compliant with COICOP, with some adjustments[70].

787. The weights of the CPI are derived from the 2012-2013 Household Budget Survey (ENIGH)[71]. The survey covered 7 020 households, obtained from a two-stage probabilistic stratified sample covering the entire nation. The response rate was 82.9%.

788. Elementary aggregates are estimated using the geometric means of relatives of prices. For higher aggregates the index is a modified Laspeyres-type index.

789. Specifications of each of the items are found in a Specifications Manual, describing the detailed characteristics of the items so that price collectors readily identify the target items. Source data are monitored on a continuous basis for possible errors. Every two to three months, training sessions are organised with price collectors to ensure that the quality of the price collection is maintained. Price collection assignments are rotated every month to guarantee that the

[70]Educational books, paper and school supplies were included in *Education* and not in *Recreation and culture*; cycling was included in *Entertainment and culture* and not in *Transport*.

[71]This costly survey (100 staff involved) is organised on an irregular basis: 1949, 1961, 1974, 1987-1988, 2004-2005, and 2012-2013. It is financed by the BCCR. Besides collecting information on household consumption, the survey covers income, housing conditions, durables, and some social characteristics. The coverage of income is comprehensive, including labour, rental, current and capital income and imputation of owner-occupied housing. Definition of income is consistent with the manual of the Canberra group and SNA.

specification of products is adequate to identify precisely the product which price is collected. To ensure that the software is functioning correctly, a separate compilation is done in Excel in parallel.

790. The Costa Rican CPI complies with the concepts, definitions and recommendations set by the ILO recommendations and the International CPI Manual. There are no identified methodological deviations in regards to accepted international standards in the CPI base June 2015. In particular:

- The National Income and Expenditure Survey is compiled according to the COICOP classification, as basis for the classification of goods and services.
- The CPI uses detailed expenditure data from the most recent Household Budget Survey, the 2012-2013 ENIGH, in line with international practice; The treatment of specific expenditure groups such as insurance is in line with international recommendations (the CPI includes housing and car insurance, based on the change in gross insurance premiums);
- The non-resident household expenditures are excluded, in line with international practices;
- Index calculations at the elementary level are based on geometric mean which enables capturing the replacement effect within the elementary aggregates;
- For higher level aggregates, in line with international practice, INEC uses a modified Laspeyres-type formula to aggregate across elementary price indexes;
- Treatment of missing prices is in line with international recommendations: when an item is temporarily missing, prices are imputed by calculating the geometric average of relatives of each item or variety for which there is information for the reference month. Subsequently, this geometric average of price relatives is applied to the previous price of the missing item. When it becomes permanently unavailable a replacement item is selected.
- Prices collected reflect market prices including sales tax and discounts.
- Some prices are fixed and controlled by the government, but this has no impact on the methodology of the CPI, as these prices are observed and processed exactly as other prices. A sub-index of regulated prices is published.
- CPI weights are revised after each ENIGH survey. The new CPI base June 2015 uses weights from the 2013 ENIGH (October 2012 to October 2013). The delay between the previous ENIGH survey (2004-2005) and the last ENIGH survey (2012-2013) was 8 years. This is below the maximum deadline recommended by the international community for the revision of the weights of the CPI, namely 10 years. However, it has to be noted that international guidelines also say that a five-year frequency for weights revision would be preferable[72]. INEC has announced that its medium term program of work includes the conduct of an ENIGH every five years.

[72]According to the International CPI Manual (paragraph 4.50):

http://www.ilo.org/public/english/bureau/stat/download/cpi/ch4.pdf

- Quality changes are only captured by implicit quality adjustment methods,[73] i.e., by appropriate stratification for matched model comparisons. When new models arrive with very different characteristics from existing models, they are left out of the comparison, implying a price change that equals the average of the product group. This may entail a new goods bias although it is difficult to quantify without separate research.

791. Some other methodological issues arise to be assessed, too. In particular:

- The weights of second hand goods are included in the weight of the CPI basket, but there is no collection of price quotations, so they are not included in CPI because their prices cannot be observed regularly. INEC will evaluate the inclusion of some second hand goods (collection of price quotations) for the next base year of the CPI (scheduled in 2019-2020 following the next ENIGH survey in 2018) by analysing the household expenditure on this type of goods, the availability of points of sale where prices can be obtained, the availability of these goods over time to measure prices, and definition of an appropriate methodology for the treatment of prices.
- A new class of items is only introduced when a new base year is implemented.
- While rental housing is included, Owner Occupied Housing (OOH) is not included. INEC will carry out the evaluation to calculate and disseminate a price index including owner-occupied housing. The evaluation will be made during the next change of CPI base, which will be implemented in the course of 2019 and 2020. In this evaluation, INEC will follow the recommendations of the International CPI Manual and the Practical Guide to producing the CPI, and consultations will be held with experts on the subject. The first results of this evaluation will be available in early 2020.

5.2.2.3. Interpretability (Metadata requirements) – CPI

792. Methodological information is available on INEC website in Spanish and in English. In accordance with its commitment that was made during the review to produce methodological information in English and to announce methodological changes in English, INEC released in March 2017 a detailed methodological note[74] explaining the compilation method of CPI target indicators. In March 2017 a methodological document in English was also published with the title "Consumer Price Index, Base June 2015. Methodology"[75] presenting details of the methodology used in compiling the CPI; and CPI weights (for the last two reference periods: July 2006 and June 2015).

793. Methodological changes are announced at the time the data are released in the 'Comunicado de Prensa' (Press Release) and later in the 'Boletín Mensual: Índices de Precios al Consumidor' (Statistics Bulletin). Methodological information is also available in English on the

[73] To avoid any misleading interpretation, adjustments for quality changes evolved all along the review. The quantity adjustment method was introduced for a limited number of items of the basket in the CPI July 2006 base methodology, and then extended to a higher number of products in the June 2015 CPI basket.

[74] http://www.inec.go.cr/sites/default/files/documetos-biblioteca-virtual/meeconomipc2017-02en.pdf

[75] http://www.inec.go.cr/sites/default/files/documetos-biblioteca-virtual/meeconomipc2017-01en_0.pdf

Special Data Dissemination Standard (SDDS) page of the IMF website.[76] INEC commits that future announcements of methodological changes will be all be made also in English.

5.2.2.4. Timeliness – CPI

794. INEC publishes the consumer price index at 9:00 am on the fifth business day of the month following the end of the reference month. Release timetable is available on INEC's website. No one outside INEC has access to the index prior to its release

795. This exceeds OECD requirements in terms of timeliness for CPI and demonstrates a rapid treatment of prices collected over the whole month. In particular, it is in line with the OECD CPI publication and press release monthly schedule.

5.2.2.5. Data and metadata transmission – CPI

796. INEC transmits monthly CPI data to the OECD on a regular basis since January 2016. INEC is able to transmit the CPI data to the OECD the same day of the official publication of the CPI. At the time of writing this report, data is still transmitted both via the standard OECD Excel files and SDMX. Because SDMX transmission has proven to be reliable, it is not necessary to provide Secretariat with OECD Excel files for CPI time series. INEC has kindly agreed to also include CPI contributions data into regular SDMX data transmission. New STES SDMX artefacts version 3.2 has been released by Secretariat and communicated to Costa Rica. These updated artefact contains Data Structure Definitions (DSDs) to be used for transmission of CPI, PPI and the CPI contributions data.

5.2.2.6. Overall assessment – CPI of Costa Rica

797. Overall, Costa Rica meets OECD requirements for the CPI series in terms of coverage, compliance, interpretability, and data and metadata transmission. The timeliness of the Costa Rican CPI even exceeds OECD requirements. In 2016, the implementation of SDMX significantly improved the regular transmission of CPI time series to the OECD. All the twenty-four CPI monthly target series have been provided by Costa Rica, as well as CPI contributions to annual inflation. In 2017, INEC published methodological information in English on CPI on its website. The re-basement that will follow the results of the updated 2018 household expenditure survey is also welcomed.

798. There is scope for improvement in a number of areas, however, and the OECD welcomes INEC's plans for the 2019-2020 review of the CPI in the following areas:

- Inclusion of owner-occupied housing (following a consistent approach with other statistical areas such as national accounts).
- Consideration of internet purchases where these are significant.
- Inclusion of the prices of second-hand goods if there is evidence that these carry a sufficient weight in consumer expenditure.
- Costa Rica is also encouraged to launch projects for explicit quality adjustment methods for products that are liable to rapid quality change, such as information technology products.

[76] http://dsbb.imf.org/Pages/SDDS/DQAFBase.aspx?ctycode=CRI&catcode=CPI00

5.2.3. Evaluation of the Producer Price Index (PPI) of Costa Rica

799. In Costa Rica, PPIs are compiled and disseminated by the DGIE (Departamento Gestion de Informacion Economica) of the BCCR.

800. In the context of the project of the new base year for national accounts, the BCCR started in 2009 a major revision of the PPIs with the aim to entirely restructure the PPIs and to develop a new set of indicators, as the previous PPI has not been maintained to the extent that it should have been. A renewed domestic PPI for manufacturing (IPP-M), rebased to 2012=100, was released in February 2015, PPIs for services was released in February 2017, and a new set of PPIs, including PPIs for export goods (to be used as deflators for national accounts), was finalised in 2017 and the monthly publication on the website is available as of May 2018.

5.2.3.1. Coverage – PPI

801. The BCCR compiles and disseminates "PPI by economic activity" and "PPI by type of goods" for both total and domestic market. Time series start in the year 2000 and are published as index series with reference year 2015=100, together with monthly changes and annual changes. PPI data is published on the website of the BCCR also in English. At the time of writing this report, the BCCR is developing a domestic PPI for telecommunication (IPP-TEL). The PPI indices reflect basic prices at factory gate, excluding any tax. The index has been rebased in early 2015, using weights of the year 2012.

802. In 2000, the BCCR developed an index for goods produced in Costa Rica for exports (IP-X), in order to calculate a total PPI by CPC Ver.2.1 product and for manufacturing. .

803. IPP-M has been linked with the previous versions of the PPI for industry, leading to a time series starting in January 1991. Detailed indices by industry classified in ISIC Rev.4 are available since 1991 and at the time of writing this report, the BCCR is working on IPP-M by CPC ver.2.1, while 1991-2014 is available in ISIC Rev.3. IPP-E and IPP-W are available since January 2007.

804. International classifications adopted by Costa Rica are used in the compilation of PPIs, i.e. ISIC Rev.4 for PPIs services and real estate index (under development at the time of writing this report), and CPC Ver.2.1 for PPIs services, PPIs by product, PPI construction, and real estate index. The classification Central American Tariff System (SAC) is used in the compilation of PPI exports and PPI imports. Data are available from 1 to 4 digit level of ISIC Rev.4, 1 to 5 digit level of CPC Ver.2.1, and 1 to 10 digit level of SAC.

805. The IPP-M is available by industry and by product. There is practically no mining/quarrying activities in Costa Rica, thus there is no PPI for this sector. The IPP-M index is based on approximately 2 357 price quotations obtained from 349 manufacturing enterprises (408 establishments) covering the entire country. The sampling framework is based on the REVEC, which is the central register/database of enterprises maintained by the BCCR. The index covers only the formal sector, with complete coverage for enterprises above 100 employees, sampling and cut-off sampling for smaller enterprises. Aggregation uses the Laspeyres formula. Although there is no law that requires the private sector to provide price data to the BCCR, they can usually be obtained on a voluntary basis. Some problems with respondents are resolved by a personal visit to the establishment. In addition, the BCCR has made an effort to foster cooperation by providing the establishments with information on the results of the PPI program.

806. The BCCR compiles several producer price indices for the service sector and has released a PPI Services in February 2017. The BCCR compiles a Total industry index, covering electricity,

gas and water industry prices. As of July 2018, the BCCR published "PPI by type of goods"[77] and "PPI by economic activity" (from 2000 onwards with reference year 2015=100). PPI data is publish on the website of the BCCR in Spanish and in English.

807. The reviewers welcome the production of PPIs covering the total market (domestic + exports), and Total industry (i.e. excluding water and electricity - Section E ISIC Rev.4) to better meet OECD coverage requirements.

5.2.3.2. Compliance – PPI

808. In terms of compliance of the Costa Rican PPI with OECD standards, the following points have to be noted:

- Basic prices collected exclude sales taxes, transportation costs and marketing margins. Therefore, producer prices are in line with international recommendations;
- The classifications used are the ISIC Rev.4 and CPC Ver.2.1;
- Weights are derived from a survey and then confronted to the supply and use tables of the National Accounts of 2012, which is the base year of the new national accounts;
- The index calculation at the basic and higher level of aggregation is in line with international recommendations. Chained Laspeyres formula is applied to elementary and higher levels. Since July 2018, the BCCR calculates chained Laspeyres with weights of previous year for the IPP-M at the producer's level;
- Treatment of missing prices is in line with international recommendations: when an item is temporarily missing, prices are imputed. The imputation process consists of the replacement of the missing value with the average price change of the prices available in the elementary aggregate or with the price for a particular product from a similar establishment. When it became permanently unavailable a replacement item is selected;
- While quality changes are captured by using the implicit quality methods, the reviewers encourage the BCCR to investigate further the quality issues as regards import price index and to ensure that adjustments are consistent with those made for economic statistics.

5.2.3.3. Interpretability (Metadata requirements) – PPI

809. In addition to a short methodological note available in Spanish on its website, the BCCR also made available on its website in May 2018 a methodological document in English. The IMF SDDS page is updated. At the time of writing this report, the BCCR is compiling a complete methodology for all PPIs with specific chapters by industry. The methodological information will be available by 2020. The Secretariat recommends that this methodological information should explain in detail the system of collection of export prices from the free regime zones.

77 https://gee.bccr.fi.cr/indicadoreseconomicos/Cuadros/frmVerCatCuadro.aspx?idioma=2&CodCuadro=4491

810. The BCCR as of May 2018 publishes PPI weights on its internet website, at a level of detail which protects confidentiality of the producers and exporters.

811. There is no advance notice of changes in methodology. They are disclosed when the new data is published for the first time.

5.2.3.4. Timeliness – PPI

812. PPIs are disseminated on the 5th working day of the month after the reference period. Their release dates for the current year are publicly available on the official calendar on BCCR's website. No one outside the BCCR has access to the PPI before its release. There is no press release. The IPP-M is published by BCCR in the monthly "Informe mensual de conyuntura economica". The BCCR meets OECD requirements in terms of timeliness. In particular, it is in line with the OECD PPI monthly publication schedule.

5.2.3.5. Data and metadata transmission – PPI

813. The BCCR transmits data to the OECD in Excel files on a regular basis. The BCCR is able to transmit PPI data to OECD on the day of the release of the data in Costa Rica. The BCCR is committed to implement SDMX for the transmission of PPIs. Pilot tests should be conducted by the end of the year 2019.

5.2.3.6. Overall assessment – PPI of Costa Rica

814. Overall, the reviewers conclude that methods used for the compilation of PPIs in Costa Rica comply with international methodological standards. They encourage the BCCR to investigate further quality adjustment as regards import price index, and to ensure that they are consistent with those made for other economic statistics.

815. During the review, significant progress has been made by the BCCR as regards the coverage of PPIs required by the OECD and now Costa Rica meets the OECD requirements in terms of coverage. As of July 2018, the BCCR compiles and disseminates "PPI by economic activity" and "PPI by type of goods" for both total and domestic market (time series start in 2000 and are published as index with reference year 2015=100, annual and monthly changes). However, the number of PPI time series transmitted to the OECD via regular Excel questionnaire remains limited, and the reviewers welcome the commitment of the BCCR to provide in the near future all the PPIs required by the OECD, in particular the aggregate PPI for Total industry in accordance with the OECD required definition (i.e. excluding water and electricity), and PPIs covering both the domestic market and exports.

816. Costa Rica complies with OECD requirements in terms of timeliness. The reviewers welcome the forthcoming test phase for the regular transmission of PPIs via SDMX starting by end 2019. Finally, the reviewers recommend the publication of detailed and updated methodological information in English on the internet website of the BCCR. At the time of writing this report, the BCCR is compiling a complete methodology for all PPIs with specific chapters by industry. This methodological information will be available by 2020. In the longer term, BCCR envisages to transfer to INEC the responsibility to produce and disseminate PPIs.

5.3. Residential Property Price Index (RPPI)

5.3.1. OECD data and metadata requirements for RPPI

817. The OECD Statistics and Data Directorate (SDD) is collecting and disseminating residential property price statistics for all its Members, key partners, and OECD accession

countries. A residential property price index consists in a price index based on effective transactions on house sales, whether second hand or new. At this stage, SDD is collecting the following indicators:

- Price index for residential property sales including both newly-built and existing dwellings, all types of dwellings, whole country;
- Price index for the sales of newly-built residential property, all types of dwellings, whole country;
- Price index for the structure component (excluding the value of the land) of the sales of newly-built residential property, whole country;
- Price index for the land component of the sales of newly-built residential property, whole country;
- Price index for the sales of existing residential property, all types of dwellings, whole country;
- Price index for the total stock of residential housing.

5.3.2. Evaluation of the Residential Property Price Index (RPPI) of Costa Rica

818. There is no RPPI for Costa Rica. INEC compiles specific Construction Price Indices (February 2012 = 100), which aim is essentially to escalate contracts in the construction sector[78]. They cover the provinces of San Jose, Alajuela, Cartago and Heredia (Central Valley). Each month, approximately 500 price quotations of construction materials are collected from 80 outlets. These indices do not correspond to RPPIs as they do not follow prices of sales of dwellings, but only reflect price movements in the material used for construction.

819. In 2017, BCCR started a research program on data for bank appraisals with the aim to obtain results in 2020. Other sources of information include the National Registry of Property (2019), MdH's standardised valuation office (2019), and fieldwork in 2020. The reviewers very much welcome this effort but signal also that sufficient time should be taken to deal with a complex area such as RPPIs to be confident to produce a series that is up to standards.

5.4. Purchasing Power Parities (PPPs)

5.4.1. OECD data and metadata requirements

820. The Eurostat-OECD PPP Programme was established in the early 1980s to facilitate the comparison of the GDPs of European Union and OECD Member countries that take into account the relative purchasing powers of the currencies of the individual countries involved. PPPs for all OECD countries are calculated on a yearly base. The price collection is spread over three years for consumer goods and services surveys, is done every three years for gross fixed capital formation surveys (Equipment goods and construction) and every year for all the other surveys.

5.4.2. Evaluation of Costa Rica's readiness to participation in the PPP programme

821. INEC is the main agency for the collection of data but BCCR contributes for prices of large material and costs of government services. Costa Rica participated as a member of the

[78]The prices collected are also used in the PPP program (see section on PPP).

Central American region (ECLAC) in the current International Comparison Program (ICP) for prices which allowed the compilation of Purchasing Power Parities (last round: 2011).

822. A Secretariat mission to Costa Rica took place in February 2017 with the aim to prepare the integration of Costa Rica in the Eurostat-OECD PPP Programme for the final calculation of the year 2017. As the data collection for 2017 started in 2015, Costa Rica needed to catch up the delay. The programme is resource demanding and requires experienced staff with a good understanding of the PPP programme, so an efficient coordination between national accounts and prices is essential. To this end, the INEC and the BCCR will need to cooperate and share the workload.

823. One of the difficulties of the PPP programme lies in estimating national prices. During the mission, it was decided that Costa Rica will follow the same approach as for the CPI, which is collected in the seven provinces of Costa Rica to establish national prices.

824. The Secretariat also discussed with the INEC and BCCR the organisation of the surveys (consumer goods and services, capital goods (construction and equipment goods), and hospital services), that will take place in 2017-2019, but also housing, compensation of employees and national accounts.

825. The consumer goods and services price surveys are organised following a rolling survey approach. This comprises a cycle of the following six surveys which takes three years to complete:

- Food, Drinks and Tobacco 2018-1 (and 2015-1at the time of the mission)
- Personal Appearance 2018-2 (and 2015-2)
- House and Garden 2016-1
- Transport, Restaurants and Hotels 2016-2
- Services 2017-1
- Furniture and Health 2017-2

826. Costa Rica reported prices for a sufficient number of comparable and representative items for all these consumer goods and services surveys, Data is of good quality thanks to a large and effective correspondence between the Secretariat and the INEC who has rapidly acquired a good understanding of the programme.

827. For the other surveys that took place in 2017-2018, the following summary can be made.

- Surveys on capital goods :
    - Construction: the BCCR works in close collaboration with the architects and engineers (from the Colegio Federado de Ingenieros y de Arquitectos) and could match their projects with the OECD requirements. Prices were sent on time in 2018 for the year 2017.
    - Equipment Goods: Costa Rica is a small country with mainly imported goods. As the methodology used by the OECD is the same as the ICP 2011 methodology, no problem was foreseen to follow the schedule to complete the survey. While the BCCR collected data for ICP 2011, the INEC was finally in charge of this survey and sent data on time in 2018 for the year 2017.
- Hospital survey: the BCCR and the INEC share price collection for this challenging survey. There are still methodological issues but there are close discussions with the OECD Directorate for Employment, Labour and Social Affairs for a full

understanding of the OECD requirements. Costa Rica has already provided a first set data on public hospitals in 2019 and will continue to investigate on how to collect prices in private hospitals to improve the data collection in the coming years (the data provided so far only covered one hospital and did not meet the OECD requirements as practioners' fees were not include. This was due to the fact that it was not possible to collect price information from a greater number of hospitals).

- Housing: Costa Rica has sent data and followed the quantity approach.
- Compensation of employees: the method is similar to the ICP 2011. However, the average number of hours worked is difficult to establish as the number of days of holidays depends on the seniority in the job. The BCCR sent data on time in 2018 for the year 2017.
- National Accounts: As announced during the mission in February 2017, the BCCR has provided data at the basic heading level and on time according to the schedule.

828. A timetable was discussed and established during the mission to catch up with the schedule and fulfil the OECD requirements for the completion of all the surveys for the calculation of the year 2017. Costa Rica should be included in the final results for 2017 by the end of 2019.

829. Following the mission, INEC and the BCCR were invited to finalise the distribution of responsibility on some surveys and to allocate appropriate resources accordingly. INEC sent an official letter to the BCCR with the distribution of responsibilities (INEC-GE-222-2018).

830. The work on ICP achieved by the INEC and the BCCR helped Costa Rica in the completion of the Eurostat-OECD programme for the year 2017.

831. Finally, the Secretariat encouraged the INEC and BCCR to cooperate with other national statistics offices already engaged in the Programme, in particular in Spanish language countries, to build a stable team of motivated and experienced professionals, and to not underestimate the necessary work to catch up the delay. The INEC Price Index Unit has contacted the PPP team in Colombia and regular exchanges of information are now taking place.

5.4.3. Overall assessment – PPP

832. The Eurostat-OECD PPP Programme calculates PPPs on a triennial base with a price collection spread over three years. As the data collection for the 2017 round started in 2015, Costa Rica established a roadmap to catch up the delay. The programme is resource demanding and requires experienced staff with a good understanding of the PPP programme, so an efficient coordination between national accounts and prices is essential. To this end, the INEC and the BCCR were asked to cooperate and share the workload.

833. Costa Rica was able to report prices for a sufficient number of comparable and representative items for all the consumer goods surveys according to the agreed timetable. For the other surveys, housing, compensation of employees, and national accounts, INEC and BCCR followed the timetable established to fulfil the OECD requirements for the completion of the 2017 Round. Although ambitious, thanks to the commitment and the excellent work of both INEC and the BCCR, this timetable proved feasible and the Secretariat is confident that Costa Rica will be included in the preliminary results of 2018 by the end of 2019.

834. The Secretariat also encouraged INEC and BCCR to cooperate with other national statistics offices involved in the Programme, in particular in Spanish-speaking countries, and to build a stable team of motivated and experienced professionals. This was essential to deal with the important work required to catch up. In 2018, a PPP meeting was held in Paris where Costa

Rica was able to establish close contacts with DANE Colombia. Since then, Costa Rica has regularly exchanged information with Colombia. All the Secretariat's recommendations have been implemented by Costa Rica, which will lead to robust results for the year 2017 at the end of 2019. Until these results are available, PPPs for GDP and consumption will be estimated on the basis of the 2011 results of the International Comparison Program (ICP).

Chapter 6. STRUCTURAL AND DEMOGRAPHIC BUSINESS STATISTICS

6.1. Background

835. This chapter presents the review of structural and demographic business statistics (SDBS) as part of the accession process of Costa Rica to the OECD. In the context of the OECD, "structural and demographic business statistics" consist of three datasets: Structural Statistics for Industry and Services (SSIS); Business Statistics by Size Class (BSC); and Business Demography (BD). This review covers the compliance of Costa Rica's structural and demographic business statistics and the ability to report data for inclusion in the listed databases. In accordance with the statistical legislation in Costa Rica, structural business statistics are compiled by the National Institute of Statistics and Censuses, INEC.

836. The assessment process involved the examination of the existing national and international sources for Costa Rican business statistics; data and metadata supplied by INEC and BCCR (Banco Central de Costa Rica) via the OECD questionnaires.

6.2. OECD data and metadata requirements for SDBS

837. The OECD SDBS consists of three datasets: Structural Statistics for Industry and Services (SSIS); Business Statistics by Size Class (BSC); and Business Demography (BD).[79] The OECD requirements for these datasets are summarised below, and additional detailed information on variables, definitions and methodological standards presented in Technical Documents have been made available to Costa Rica.[80] These definitions are consistent with international practices though there are no standard international reference manuals specifically for SSIS and BSC. For business demography, the definitions provided are based on the Eurostat-OECD Manual on Business Demography Statistics.[81]

- For the enterprise size-class breakdown in the BSC questionnaire, the employment size classes are: 1-9, 10-19, 20-49, 50-99, 100-199, 200-249, 250-499, 500-999 and over 1000 persons employed. However, if this detail is not available, the OECD strongly recommends the following second best: 1-9, 10-19, 20-49, 50-249, >250 persons employed.
- Measurement units should be as follows: monetary variables in millions of national currency; employment variables in numbers of persons employed or employees; hours worked in thousands; and the business population in number of enterprises or establishments.
- Value added should be valued at factor cost.

[79] The SSIS dataset is in fact included in the BSC, as the latter contains breakdowns of the SSIS database by size class.

[80] http://www.oecd.org/statistics/data-collection/

[81] http://www.oecd.org/sdd/business-stats/eurostat-oecdmanualonbusinessdemographystatistics.htm

- Business demography statistics should refer to "employer enterprises", i.e. enterprises with at least one employee.
- In 2010, ISIC Rev.4 became the new standard classification for SSIS, BSC and BD data collection from the reference year 2008. To ensure comparability over time and the overall quality of the database, the Secretariat strongly encourages countries to provide information in ISIC Rev.4 for as many years as possible preceding 2008. If data are not available in ISIC rev. 4 for that period, information should be provided in ISIC Rev.3 until year 2007, and in ISIC Rev.4 from 2008. In this case, having one year of double reporting is the minimum requirement for the SDBS database to permit a sound analysis of historical trends.
- If a country has not made the transition to ISIC Rev.4, plans and dates for the transition to Rev.4 should be provided to the OECD.

6.2.1. Coverage Requirements for Structural Statistics for Industry and Services (SSIS)

838. For the SSIS database, the Secretariat asks countries to provide annual information relating to the economic activity of industries at a very detailed level (3-digit or preferably 4-digit level). Variables include number of persons employed or employees and number of enterprises; turnover; value added; investment; wages and salaries. The complete list of variables required has been made available to Costa Rica. The Secretariat maintains SSIS data from the year 2000, or earlier, for most countries. Accession countries should provide as long a historical series as possible; ideally, beginning in 2000 or earlier.

6.2.2. Coverage Requirements for Business Statistics by Size Class (BSC)

839. For the BSC database, the Secretariat asks countries to provide annual information relating to the economic activity of industries at a very detailed level (3-digit or preferably 4-digit level), broken down by employment size classes. Variables include: number of persons employed, number of employees and number of enterprises; turnover; value added; investment; wages and salaries. The complete list of variables required has been made available to Costa Rica. The Secretariat maintains BSC data from the year 2000, or earlier, for most countries. Accession countries should provide as long a historical series as possible; ideally, beginning in 2000 or earlier.

6.2.3. Coverage Requirements for Business Demography (BD)

840. The BD database contains information relating to business births, business deaths, business survival, high-growth enterprises and gazelles. The complete list of variables required has been made available to Costa Rica. The Secretariat maintains BD data from the year 2005 for most countries. Accession countries should provide as long a historical series as possible; ideally, beginning in 2005.

6.2.4. Interpretability (Metadata) Requirements for SDBS

841. For OECD purposes, complete and clear metadata must be available in one of the official languages of the organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet.

842. The Secretariat asks countries to provide metadata concerning the institution responsible for the statistics, any national classification system used, reference units and data sources. The Secretariat collects such information through the SSIS, BSC and BD metadata questionnaires, which have been made available to Costa Rica.

6.2.5. Timeliness Requirements for SDBS

843. It is important that countries provide data, or that data be available at the same time or immediately after they are released nationally. While, ideally, data should be available as soon as possible after the reference period it is understood that a lag is necessary to permit the data to be collected and tabulated. Most OECD countries provide SDBS data about two years after the end of the reference period.

6.2.6. 5.5.6. Data and metadata transmission requirements for SDBS

844. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This is the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users.[82]

845. The secretariat notes that a pilot project of SDMX data exchange for BOP datasets is currently under development at the BCCR with the idea of extending the technique to other indicators in the future.

846. In the meantime, the OECD is flexible and endeavours to work with each country to find the most efficient and effective solution that guarantees regular, ongoing transmission of data in a timely way. For business statistics, the Secretariat provides annually two separate Excel templates ("questionnaires") to countries - one for SSIS and BSC datasets, and another for BD. However, other data transmission formats are also suitable, such as flat file format (txt, csv), SAS or Stata datasets or other standard formats.

6.3. Evaluation of Costa Rican SDBS

6.3.1. Sources

847. This assessment involved the examination of the existing national sources for Costa Rican business statistics, i.e. data and metadata supplied by INEC and BCCR via the OECD questionnaires in 2015.

848. In Costa Rica, until the adoption of the Law No. 9694 in May 2019, the production of Business Statistics was regulated by the Law No. 7839 on the NSS and INEC. Chapter 2 of Law No. 7839 regulates the functions of INEC and Articles 13 and 14 establish the creation of population directories, including the Directory of Enterprises and Establishments (DEE). At the same time, BCCR has developed its own business register, the REVEC (see descriptions of the DEE and REVEC in Chapter 2).

[82]SDMX (Statistical Data and Metadata eXchange) is an initiative to foster standards for the exchange of statistical information sponsored by the Bank for International Settlements (BIS), the European Central Bank (ECB), the Statistical Office of the European Union (Eurostat), the International Monetary Fund (IMF), the OECD, the United Nations (UN) and the World Bank.

849. Paragraph d) of Article 14 of the Organic Law of the Central Bank (No.7558), establishes the responsibility of BCCR in providing statistical information of the economic situation of Costa Rica, "including, at least, production, price, currency, credit, exports, imports and gross and net international reserves information." In the same way, the Service Plan (Economic Division target-goals) is intended to "provide information to the society to contribute to the decision-making process of economic agents". BCCR accesses public institution's information under article 40 of its Organic Law (No.7558), which states:

Article 40: *"[…] The offices and departments of the State and of autonomous institutions will be obliged to assist the departments of the Central Bank, so that they can efficiently achieve their functions. To do so, they must provide them, as soon as possible, the data, reports and studies requested.*

The failure to fulfil this obligation by the employee in charge of the offices and departments of the State and of autonomous institutions will be considered a serious offense to the position´s obligations.

Only for statistical purposes, the employees of the Central Bank of Costa Rica will have access to the tax records. They must comply with the same prohibitions and limits established in article 117 of the Código de Normas y Procedimientos Tributarias, Law No.°4755, of May 3rd of 1971; besides, they will be subject to that ordered in article 203 of the Código Penal."

850. The implementation of the Law No. 9694 will grant INEC full access to tax records and social security data for statistical purposes, and then allow INEC and BCCR to avoid any duplication in the sources used to produce and disseminate harmonised SDBS. In the meantime, BCCR started to provide INEC with partial information from REVEC in October 2018 (see chapter 2).

851. The OECD Secretariat assessed the BSC and BD questionnaires provided by INEC and BCCR, and identified significant differences between the statistics by enterprise size class collected by INEC and BCCR respectively, as well as between the business demography statistics collected by the two institutions. The discrepancies are mainly due to the use of data from two distinct statistical business registers. INEC and BCCR agreed to merge the BSC and BD data production in the future, and that either INEC or BCCR will be responsible for the provision of SDBS questionnaires to the OECD on a regular basis, until the new statistics legislation is implemented, authorizing INEC to access the administrative records for statistical purposes and take responsibility for providing comprehensive BSC and BD datasets.

6.3.2. Coverage

6.2.2.1. Coverage for SSIS

852. Costa Rica submitted the structural data in the BSC questionnaire that covered "Total" size class, therefore the coverage of SSIS is included in the BSC coverage, and described below.

6.2.2.2. Coverage for BSC

853. Costa Rica provided structural data on Business Statistics by Size Class in two distinct questionnaires: one from INEC and one from BCCR:

− The INEC questionnaire covers the period from 2008 to 2014 for the number of employees (EMPE), the number of enterprises (ENTR) and the number of establishments (ESTB), as well as 2010-2014 for the number of female employees (EMPF). No data are available for 2009.

– The BCCR questionnaire covers the number of employees (for years 2005-2013) and number of enterprises (2005-2013) but presented higher number of enterprises for some size classes compared to INEC, suggesting a better coverage.

854. In terms of economic sectors, the coverage is very good at all levels: 4-digit classes, 3-digit groups, 2-digit divisions, sections of ISIC Rev.4 and higher aggregates. Similarly, all size classes are covered and correspond to SDBS standard size classes.

855. According to the description provided by INEC (and mentioned in Chapter 2, 1.1.14), "The DEE is a structured register of the resident institutional units of the **private** sector in Costa Rica". It is not clear if private is used in the sense of ownership, which would mean that any state-owned enterprise would be excluded, even those that are not directly linked to government services; or in the sense of business economy, implying that businesses that are majority-owned by the government are included in the register.

856. The number of establishments (ESTB) in the INEC questionnaire is significantly lower than the number of enterprises (ENTR), possibly because only dependent establishments are included. According to definitions applied in SDBS the indicator ESTB should include the counts of all establishments, i.e. single-establishment enterprises and head offices, as well as dependent establishments. It also implies that the number of establishments should always be higher or equal to the number of enterprises (ESTB ≥ ENTR).

6.2.2.3. Coverage for BD

857. Costa Rica provided business demography data in two questionnaires: one from INEC and one from BCCR. Comparing the INEC and BCCR questionnaires, INEC numbers of active enterprises were lower than BCCR numbers, suggesting a better coverage of enterprises by BCCR. Moreover, BCCR BD questionnaire covered more variables and more years.

858. The BCCR BD questionnaire covers the following periods: 2005-2013 for the number of active enterprises and employment in active enterprises; and correspondingly 2006-2013 for births, 2007-2013 for deaths, 2008-2013 for high-growth enterprises, 2009-2013 for Gazelles. The surviving enterprise counts as well as corresponding employment were covered as follows: 2007-2013 for the first survival year, 2008-2013 for the second survival year, 2009-2013 for the third survival year, 2010-2013 for the fourth survival year and 2011-2013 for the fifth survival year. Data for economic births as well as the Hirschman-Herfindahl concentration index were missing. However, very few OECD countries provide these two variables.

859. In terms of economic sectors, the coverage of questionnaires is very good at all levels: 4-digit classes, 3-digit groups, 2-digit divisions, sections of ISIC Rev.4 and higher aggregates. All size classes are covered and correspond to SDBS standard size classes.

6.3.3. Compliance

860. In case of the BD questionnaire filled out by the BCCR, it was noticed that the level of employer enterprise deaths was very low compared to employer enterprise births. The BCCR explained that the number of "employer enterprise deaths" does not include "units without activity for over two years", and that it was not possible for some time to verify the legal condition (dissolved, merged, liquidated or broken-up) in the National Register. The BCCR committed to include these units without activity for over two years in the calculation of the enterprise deaths in the future reports.

861. However, before undertaking any revisions some care is needed in order to apply the definitions of the *Eurostat-OECD Manual on Business Demography Statistics*. A death amounts

to the dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, breakups and restructuring of a set of enterprises. It does not include exits from a sub-population resulting only from a change of activity.

862. The statistical unit used in BD questionnaire was the legal unit. Legal units include legal persons whose existence is recognized by law independently of the individuals or institutions which may own them or are members of them, and natural persons who are engaged in an economic activity in their own right. The OECD Secretariat however advises to use, if possible, the employer enterprise as the statistical unit for the purposes of Business Demography.

6.3.4. Interpretability (Metadata requirements)

863. Metadata were added in the worksheets below the data tables; there is a separate metadata note for each year submitted. However, the OECD Secretariat requires that the country submits all metadata in a summarised form (a list or a table) in the "Comments" worksheet of the Excel questionnaire.

6.3.5. Timeliness

864. Data coverage in terms of timeliness is very good. For the 2015 data cycle, Costa Rica submitted 2014 BSC data and 2014 BD data. However, the reporting body is supposed to revise the most recent BD data according to the *Eurostat-OECD Manual on Business Demography Statistics*, especially with regards to the measurement of enterprise deaths.

6.3.6. Data and metadata transmission

865. Data were submitted once in standard Excel questionnaires. For the BSC data obtained from BCCR, two additional rows are added to the data tables containing "Enterprises not classified" and "Grand Total". It is however advised to include the grand total of active enterprises in the corresponding ISIC Rev.4 total, even if the components of lower ISIC Rev.4 hierarchy would not sum to the total.

866. The OECD Secretariat notes the engagement of Costa-Rican statistical authorities to provide the latest data by September 2019 which will have resolved the issue of the definitions of enterprise deaths (exclusion of mergers, take-overs, breakups and restructuring).

6.3.7. Overall assessment of data and metadata received from Costa Rica for SDBS

867. The OECD Structural and Demographic Business Statistics (SDBS) consist of three datasets: Structural Statistics for Industry and Services (SSIS); Business Statistics by Size Class (BSC); and Business Demography (BD). The Costa Rican SDBS were assessed to determine how well they satisfied international standards and the needs of OECD internal and external users. The reviewers conclude that Costa Rica meets the OECD requirements in terms of coverage and compliance for SDBS. The BCCR submitted SDBS data in ISIC Rev.4 and for both Business Demography (BD) and Business Statistics by Size Class (BSC) questionnaires, for all available size classes. Since both INEC and BCCR publish business statistics based on different business registers, the reviewers welcome the agreement between INEC and the BCCR for harmonising information on SDBS in the future, and to ensure an effective transmission of data and metadata to the OECD, via the BCCR.

868. As regards the outstanding questions about the efficiency of the updating process, and the ability of INEC to access detailed Business Demography information, it is expected that the

extensive modifications contained in the Law No. 9694 will grant INEC full access to tax records and social security data for statistical purposes and allow INEC and BCCR to disseminate harmonised SDBS.

Chapter 7. INDICES OF PRODUCTION AND DEMAND

7.1. Background

869. Measures of monthly changes in the volume of production are of particular interest for economic analysis. In particular, the industrial production index is a business cycle indicator which measures the monthly changes in the price adjusted output of industry. Therefore, indices of production and demand are used for identifying turning points in economic cycles, for example, in the compilation of the OECD Composite Leading Indicators (CLIs).

870. The present assessment is based on the data and metadata submitted by the BCCR via the OECD questionnaires and the IMF Special Data Dissemination Standard metadata. In Costa Rica, indices of production and demand statistics (also called 'real indicators') are compiled and disseminated by the BCCR and the INEC.

7.2. OECD Data and Metadata Requirements for indices of production and demand

7.2.1. Coverage

871. The OECD core data requirements for indices of production and demand cover monthly series on industrial production and turnover (total industry, mining, manufacturing, construction and energy); retail trade turnover (volume and value); new passenger car registrations; construction permits and work started. More specifically, the core data requirements are:

- Indices of industrial production by economic activities, i.e. total industry (B to D, ISIC Rev.4) as well as the following sections in ISIC Rev.4: Mining (B), Manufacturing (C), Energy (D), and Construction (F);
- Total retail trade volume and value (Section G, Division 47 of ISIC Rev.4);
- Number of construction permits issued for new dwellings (residential buildings); and,
- Number of new passenger cars registered for the first time (an acceptable alternative measure to new passenger car registrations may be the number of new vehicles sold).

872. In addition, the following list of indicators of production and demand is considered as highly desirable:

- Total wholesale trade volume and value (Section G, Division 47 of ISIC Rev.4);
- Turnover value and volume in Manufacturing (Section C of ISIC Rev.4);
- Volume and value of orders for total manufactured goods;
- Volume of stocks of total manufactured goods;
- Volume of stocks of consumer goods, intermediate goods and investment goods;
- Ratio of inventories to shipments;
- Number of dwellings for which construction work commenced.

873. Countries should provide as long a historical series as possible, beginning, at the latest, in 1995, though earlier data are preferred. While countries should provide the most frequent data available, either monthly or quarterly, monthly is the preferred frequency. The OECD prefers that seasonal adjustments be made by the country itself as national statistics experts have better knowledge of local seasonal factors than international statisticians do.

7.2.2. Compliance

874. The definitions and compilation methods used should follow the UN International Recommendations for Industrial Statistics (2008)[83], the UN International Recommendations for the Index of Industrial Production (2010)[84], the International Recommendations for Distributive Trade Statistics (2008)[85] and the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4 (2008).[86]

7.2.3. Interpretability (Metadata requirements)

875. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the Internet.

876. With respect to indexes of production and demand, the OECD requirements for metadata are the statistical population and unit, the geographic coverage, the sector coverage, the frequency, the classification system, the reference period, the seasonal adjustment method, the source of data, and the method for index calculation.

7.2.4. Timeliness

877. It is important that countries make data available at the same time, or immediately after, they are released nationally. Ideally, monthly data should be available within one or two months and quarterly data within one quarter after the reference period.

7.2.5. Data and metadata transmission

878. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users too.

879. In the meantime, the OECD is flexible and endeavours to work with each country to find the most efficient and effective solution that will guarantee regular, ongoing transmission of data, in as timely a fashion as possible. Transmission of data in EXCEL spreadsheets or in another electronic format will be negotiated and implemented on a case-by-case basis.

[83] http://unstats.un.org/unsd/publication/seriesM/seriesm_90e.pdf

[84] http://unstats.un.org/unsd/EconStatKB/Attachment242.aspx

[85] http://unstats.un.org/unsd/trade/M89%20EnglishForWeb.pdf

[86] http://unstats.un.org/unsd/publication/seriesM/seriesm_4rev4e.pdf

7.3. Evaluation of indices of production and demand of Costa Rica

880. The review assessed the monthly indices of production produced and dissemination by the BCCR and indicators on building permits issued collected from the INEC to determine how well they meet the basic OECD requirements in terms of coverage, compliance, timeliness, interpretability and data and metadata transmission.

7.3.1. Coverage

881. Indices of industrial production required by the OECD are available from the BCCR monthly Index of Economic Activity (IMAE) time series. Methodological changes in the IMAE were implemented in November 2016 allowing significant improvement in terms of quality.

882. The IMAE is a monthly chained Laspeyres volume index type using fixed weights for the reference year 2012, in line with the base year of national accounts. IMAE indices measure economic activity by calculating changes in gross value added for a number of the most important industries in Costa Rica. Information is sourced from private non-financial corporations, state-owned institutions, and administrative sources. When basic information is missing for an activity (accommodation and food services activities; real estate activities; professional, scientific, technical, administrative and support service activities; public administration, compulsory social security; education and human health and social work activities; and other activities), monthly estimates of the value of the gross production are benchmarked to annual accounts using the Denton method (ECOTRIM program). The IMAE covers more than 80% of GDP and the classification of industries is based on ISIC Rev.4. Time series, including seasonally adjusted time series (time series are adjusted by TRAMO-SEATS and broken down into trend cycle, seasonality, and irregularity component), are available from 1991.

Industrial production indices - Total (ISIC Rev.4, B to D)

883. Costa Rica provides the Secretariat with seasonally adjusted index of industrial production indices. The total industry production index is defined as a weighted sum of the mining (B), manufacturing (C) and energy indexes (D), and data provided by Costa Rica since 2016 include construction (F).

Mining and quarrying:

884. The monthly index of mining and quarrying is based on administrative data and information from production surveys conducted by the BCCR.

Manufacturing:

885. A distinction is made between manufacturing activities carried out under the “definitive” and the special regimes, as Free Zones and Processing Goods. Basic information for the monthly index of production in “definitive” regime combines information from administrative records and from production surveys carried out by the BCCR. Production data on special regimes are based on exports and cover all the establishments classified under these regimes obtained from the General Directorate of Customs, administrative data, and production surveys carried out by the BCCR.

Energy and Water Supply:

886. For the electricity and water supply activities, monthly baseline information on sales of electricity (in MGW/hour) is sourced from the Costa Rican Institute of Electricity (ICE), while

data on sales of water is provided by the Instituto Costarricense de Acueductos y Alcatarillados (ICAA, Costa Rican Institute of Aqueducts and Sewage).

Construction:

887. The construction activity gathers private and public destination. Information on construction with private destination is sourced from the quarterly survey of Advancement of Projects with Private destination (ETAPCP), conducted by the BCCR in conjunction with the Association of Engineers and Architects (CFIA). Basic information corresponds to the monthly records of professional responsibility of construction projects (which could have more than one project in progress) registered with the CFIA and the unit of measure them are the square meters. Public construction is included in the calculation of the monthly index by expressing in monthly terms the index estimated on an annual basis.

Turnover in the retail sector volume and value

888. Costa Rica's Monthly Wholesale and Retail Trade Index are compiled by BCCR from two sources:

1. A monthly survey of commercial companies requesting information on sales; and
2. Administrative records from the MdH.

889. The index is composed of twenty-three traded groups. The sales of each company are weighted by their own participation within their category, and the level obtained is then deflated. Each group is weighted by the trading margins of 1991, according to the supply and use table (SUT).

890. In the occurrence that data is missing from the monthly survey, Costa Rica proceeds to use administrative records from the MdH. These records provide monthly sales by company, so missing data is replaced with sales data from administrative records. Also, data from administrative records is used to validate atypical data from the survey. Moreover, in some special cases, the BCCR calculates sales in constant prices in order to extrapolate a specific group index.

891. At the time drafting this report, the BCCR informed the Secretariat that it will be able to provide monthly volume indicators for wholesale trade and retail trade based on ISIC Rev.4 (Section G, Div.46 and Div. 47 respectively) in November 2019. The time series will start in 2012 in the first instance, with the view to extend the time coverage in 2020 by providing data from 2005, based on information available from the MdH.

Building Permits issued for dwellings

892. The BCCR has adopted three different strategies to estimate building construction statistics indirectly:

1. *A quarterly survey to measure the progress of construction projects*. The survey has been conducted since the fourth quarter of 2010, and 1000 projects have been surveyed so far. Each project is reviewed regularly throughout the construction process.

2. *Building of prototypes to obtain detailed cost structures of buildings*. The building of the prototypes is done according to a pre-established classification: social housing, middle-class housing, high-class housing, local commercial (stores), shopping centre, storage, industrial building, office block and apartments, housing development (of the land for residential purposes), swimming pool.

3. *Systematisation of construction statistics estimations*. For input in the national accounts, the estimates includes loading and validating the data, managing the prototypes, calculating the production and income accounts and producing the output reports.

893. The BCCR explains, in its metadata on the compilation of the monthly construction index, that the index is calculated using the registrations of new building construction permits gathered by INEC as one of the sources. However, none of these series produced by the BCCR match exactly the OECD requirements (i.e. the number of permits issued for dwellings). INEC also compiles construction statistics and produces a time series starting in 1995 that matches OECD requirements.87

894. In Costa Rica, construction permits issued for privately-owned new buildings are collected by the 81 municipalities and by the 8 district councils through a standardised "Permits for Construction" survey provided by INEC. Construction permits exclude public infrastructure (public schools, public hospitals, highways, bridges, etc.). Municipalities provide INEC with all the authorized construction permits after they have been approved by the municipal engineering department. The survey also collects information on cancelled permits.

895. The standardised form for construction permits consists of a questionnaire structured in three parts: (i) questions related to the permit applicant and the owner of the construction site; (ii) twelve pre-coded statistical items (type of permit, type of construction, area of construction, value of construction, main materials used for the floor, walls and ceiling, type of financing, etc.); and (iii) questions through which information is collected that will be used by the municipalities (permit approval date, insurance, name of the engineer, signature of the mayor, other observations). The INEC verifies and digitizes the information collected from the construction permits provided by the municipalities in the forms. Municipalities also use IT tools to process the approval of the permits, which 80% is related to the use of the Construction Project Manager tool (APC, its acronym in Spanish) developed and used by the Federated College of Engineers and Architects (CFIA, its acronym in Spanish). CFIA engineers and architects must use the APC in all of the stages involved in the design of a construction project, then each municipality can use this tool or any other one (Excel, Word, etc.) to carry out the administrative procedures for authorizing or not the construction permit. The vast majority of the records processed by the APC tool belong to new construction projects and are downloaded by INEC using web services[88]:

- 63% by E-mail.
- 20% by visit to the municipality (standardized forms).
- 16% by Web Server.
- 1% by municipal courier.

896. Processing construction statistics consists therefore in matching the records from the APC web service with the construction permit granted by the municipalities for a specific month. This

[87] namely C.04 Construction of Houses and Apartments in the Country; By number of permits [Construcción de Viviendas y Apartamentos en El Pais; Por número de permisos]

[88] This information evolved significantly after the review towards 10% by email and 90% through web services (31% of these process physical minor works corresponding to: earthworks, extensions, demolitions and repairs)

process aims to eliminate duplication and avoid including permissions that have not yet been approved.

897. The following variables are obtained by INEC from the construction permit registry: province, canton, APC contract number, month and year of permit, localisation, type of permit, type of construction work, destination (households, private school, shopping centre, religious centre, etc.), economic activity (ISIC4 one digit), area (square meters), number of floors, number of dwellings, number of rooms, number of bedrooms, type of building, value (total value of construction work), material mainly in floor, walls and ceiling, , use (personal, renting, sell or other), financing. Data is published twice a year in the *Construction Brochure*.[89] The first publication provides preliminary data for the first semester, while the second presents final data for the entire year. These publications also include new constructions, extensions, repairs, demolition and earthworks.

898. During the review, INEC transmitted annual time series covering the years from 1995 to 2014 and confirmed that monthly data (collected quarterly) will be made available in the second semester of 2019. INEC plans to pursue its efforts in raising awareness in the municipalities and to collect information on the building permits approved or cancelled on a monthly basis. The objective is to obtain this information within 15 days after the end of the reference month. To this end, INEC already obtained positive responses from several municipalities, and engaged an evaluation of data. At the time of writing, INEC expects being able to publish a seasonally adjusted monthly time series in the first half of 2021.

Number of new passenger car registrations

899. In Costa Rica, statistics on the number of new passenger cars registrations are available only on an annual basis. During the review, INEC received access to the passenger cars registrations databases of the Public Registry. At the time of writing this report, INEC is in the process of analysing this information, with the view to produce the statistics required by the OECD.

7.3.2. Compliance

900. Indices of production produced by the BCCR broadly comply with international standards. In particular, they are compiled in accordance with the following groups of sections of the classification ISIC Rev. 4 which correspond to the 136 economic activities of the supply and use tables (SUT):

SECTION	DESCRIPTION OF THE CLASS
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D,E	Electricity, water supply, sewerage, waste management and remediation activities.
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities

[89] http://inec.cr/publicaciones?field_area_tematica_documento_tid=370

M,N	Professional, scientific, technical, administrative and support service activities
O	Public administration; compulsory social security
P,Q	Education and human health and social work activities
R,S,T,U	Other activities

7.3.3. Interpretability (Metadata requirements)

901. Detailed metadata on real indicators is available: (i) a technical note on the IMAE is available in Spanish and in English on the BCCR's website;[90] and (ii) a detailed methodological note in English on the number of permits issued for new residential dwellings was made available online by the INEC in 2016.[91]

7.3.4. Timeliness

902. The BCCR collects information in the first ten days of each month and releases monthly indexes of production and demand fourteen days after the end of the reference month. Costa Rica has confirmed that data can be provided to the OECD simultaneously to their nationwide release. This complies with the OECD requirements in terms of timeliness. Furthermore, a twelve month-ahead advance release calendar is made available to users by the BCCR since 2016.

903. As regards building permits, INEC has not provided monthly data to the Secretariat but informed the OECD that it could be feasible in the second semester of 2019. INEC produces a quarterly report with monthly information but this information is not made available publicly. INEC is also developing a computer system for processing these statistics in the perspective of their publication on a monthly basis.

7.3.5. Data and metadata transmission

904. In 2016, the BCCR implemented an advance release calendar with release dates for the following twelve months. As regards the regular transmission of data to the Secretariat, the BCCR will evaluate the possibility of implementing SDMX. In the meantime, the regular (monthly) data transmission occurs through Excel files.

905. INEC transmitted annual data for the number of new building permits issued and passenger cars registrations through Excel files, and is currently investigating the feasibility to produce these indicators on a monthly basis. The regular transmission through SDMX will be implemented when monthly time series will be available.

7.3.6. Overall assessment of Indices of Production and Demand

906. In Costa Rica, the BCCR produces indices of industrial production. Overall, the reviewers consider that the indices of industrial production compiled and disseminated by BCCR meet the basic OECD requirements in terms of coverage, compliance, timeliness, interpretability, and data transmission, and compare favourably with those produced in many OECD member countries. The extensive methodological changes introduced by BCCR in November 2016 in the monthly

90 HTTP://INDICADORESECONOMICOS.BCCR.FI.CR/INDICADORESECONOMICOS/DOCUMENTOS/DOCUMENTOSMETODOLOGIASNOTASTECNICAS/TECHNICAL%20NOTE%20%20IMAE%20REFERENCE%20YEAR%202012.PDF

91 http://www.inec.go.cr/sites/default/files/documetos-biblioteca-virtual/meeconomcomercio2016-01en.pdf

Index of Economic Activity (IMAE) allowed significant progress in terms of quality. The new IMAE includes expanded coverage for manufacturing, mining, energy, water supply and construction, as requested by the OECD and the monthly indices of industrial production are computed and disseminated according to the classification ISIC Rev.4 from 1991. Moreover, seasonally adjusted time series are available. The BCCR is also able to provide monthly volume indicators for wholesale trade and retail trade. INEC committed to provide monthly information on buildings permits. A passenger cars registrations time series is only available on an annual basis and INEC is investigating the feasibility of collecting and publishing monthly information based on administrative records.

Chapter 8. INTERNATIONAL TRADE IN GOODS STATISTICS

8.1. Background

907. This chapter presents the review of statistics on the OECD International Trade Statistics Programme. The programme includes: international merchandise trade statistics; trade by enterprise characteristics (TEC); supply and use tables (SUTs); and trade in value added (TiVA). The review was conducted by the OECD Secretariat in the Statistics and Data Directorate (SDD), as part of the accession process of Costa Rica to the OECD.

908. In Costa Rica, the Central Bank of Costa Rica (BCCR) is responsible for TEC, SUTs. BCCR and INEC are both involved in the production and dissemination of international merchandise trade statistics.

909. The objective of the OECD's International Trade Statistics Programme is to compile core series on trade that are comparable between countries, analytically useful, timely and available for the longest period possible. As part of this overarching programme, the purpose of OECD Supply and Use Statistics Programme is to compile core series on supply and use data comparable across countries, analytically relevant, timely and available for the longest period possible. One important use of national SUTs is in the creation of the TiVA database. More generally however the collection of national SUTs enhances the OECD's capacity to respond to emerging data needs across a wide range of policy areas, such as productivity analysis and globalisation, as well as broader international efforts to develop fully integrated international accounting frameworks.

910. The assessment process consisted of the examination of the existing national and international sources for Costa Rica international trade statistics and the collection of data and metadata supplied by Costa Rica via the OECD questionnaires. This information gathered provided the main input source for the assessment. INEC is the official producer of international merchandise trade statistics in Costa Rica and the BCCR is the official producer of enterprise characteristics statistics and SUTs in Costa Rica. Both organisations contributed actively to the review process. Specifically for SUTs, the assessment process involved the examination of the existing sources used to construct Costa Rican SUTs and the collection of data and metadata supplied by Costa Rica to the OECD mostly via the OECD SUT questionnaire. The information gathered provided the main input source for the assessment.

911. According to United Nations guidelines, international merchandise trade statistics record all goods which add to, or subtract from, the stock of material resources of a country by entering (as imports) or leaving (as exports) its economic territory. Goods being transported through a country or temporarily admitted or withdrawn (except for goods for inward or outward processing) are not included in merchandise trade statistics.

912. OECD Members use the United Nations' International Merchandise Trade Statistics: Concepts and Definitions 2010 (IMTS 2010)[92] manual to the extent that their data sources allow.

913. As a complement to international merchandise trade statistics, trade by enterprise characteristics (TEC) statistics are compiled in order to better understand the firms engaged in export and import. Trade by enterprise characteristics statistics break down international merchandise trade statistics by the characteristics of the trading enterprise. The data are generally produced by national statistics authorities through the linking of microdata from customs

[92] http://unstats.un.org/unsd/trade/eg-imts/IMTS%202010%20(English).pdf

transactions (used for compiling merchandise trade statistics) to a centralised business register containing relevant characteristics and reporting structures of all firms operating within that national boundary. This microdata linkage for TEC is facilitated by the possibility of using common identifiers between the trade register and the business register.

914. In parallel with the collection of standardised and harmonised national supply-use tables, the OECD has created an expert group to develop extended supply-use tables (ESUTS) with more granular and global value chain (GVC) focused aggregates of firms that provide the basis for better quality estimates of TiVA while also providing new and important insights on the mechanisms (and scale) of integration of SMEs and MNEs. This activity is also a crucial input into the development of new international guidelines on integrated international accounting frameworks that aim to provide a joined-up and coherent view of trade, production and investment.

8.2. OECD data and metadata requirements for international trade statistics

8.2.1. Coverage

8.2.1.1. International merchandise trade

915. The OECD International Trade in Goods Programme consists of three datasets: OECD Annual International Trade by Commodity Statistics (ITCS); OECD Quarterly International Trade Statistics (QITS); and OECD Monthly International Merchandise Trade data as presented in the SDD Main Economic Indicators database.

- The OECD *International Trade by Commodity Statistics* database contains values and quantities of exports and imports by partner countries and by commodity and industry. Commodities are available at the most detailed level of the Standard International Trade Classification (SITC Revision 2, 3 and 4) and the Harmonised System (HS 1988, HS 1996, HS 2002, HS 2007 and HS 2012). OECD extracts annual trade data from the UN COMTRADE database.
- The OECD *Quarterly International Trade Statistics* database contains values of exports and imports by partner countries for total trade. OECD extracts monthly trade data from the UN COMTRADE database, and aggregates the quarterly frequency by summing up the months.
- The OECD *International Merchandise Trade* data as presented in the SDD *Main Economic Indicators* database presents the headline monthly values of total trade. The following time series, in raw and seasonally adjusted form, on a monthly frequency are required:
  - Total trade (partner world) exports; and
  - Total trade (partner world) imports.

8.2.2.2. Trade by enterprise characteristics (TEC)

916. This OECD linkage exercise of trade and business registers aims at producing sectoral international merchandise trade data in US dollars, disaggregated by the characteristics of the trading enterprises. The product classification to be used is the CPC Ver.2. The reference population should cover all enterprises recorded in the business register, except ISIC Rev.4 sections T and U (97, 98 and 99).

917. Trade values and enterprise characteristics should be displayed following the ISIC Rev.4 classification of the trading enterprise, which is the principal activity sector in which the enterprise is classified in the business register. The 2-digit level of the ISIC code should be used whenever possible.

918. The database includes a disaggregation by six types of ownership: domestically controlled enterprises; domestically controlled enterprises without own affiliates abroad; domestically controlled enterprises with own affiliates abroad; foreign controlled enterprises; and unknown control.

919. The database also includes a disaggregation by six types of traders: importers only; importers and two-way traders; exporters only; exporters and two-way traders; and unknown. Finally, the database includes a disaggregation by seven types of export intensity: non-exporters; enterprises that export from 0 to 24% of their total output; enterprises that export from 25 to 49% of their total output; enterprises that export from 50 to 74% of their total output; enterprises that export from 75 to 100% of their total output; and unknown.

920. The reference years are the three latest available years.

8.2.2.3. Supply use tables (SUTs)

921. The official collection of standardised national SUTs by the OECD is a recent initiative, driven in large part, but not exclusively, by the need to improve the quality of TiVA, and to mainstream the collection (and development) of national inputs used to create TiVA. The data requirements of the questionnaire developed by the OECD are, in this sense, motivated by TiVA but they also reflect and build-on, Eurostat's long-standing collection of national SUTs.

922. The minimum requirement for a country's integration into the TiVA database is official national SUTs or IO tables. In many countries these are produced intermittently, about every five years, but for good quality measures of TiVA, and certainly for good quality estimates of GDP, the OECD (and the SNA) recommend that supply and use tables are produced on an annual basis, with a more relaxed requirement for IO tables, usually every 5 years.

923. For those countries not able to produce annual SUTs, countries should provide a time series of value added and gross output by industry, at basic prices, at as detailed a level as possible (at least at a level consistent with national SUTs).

924. The Trade in Value Added (TiVA) database is a joint OECD-WTO initiative. Its aim is to allow better tracking of global production networks and supply chains than is possible with conventional international trade statistics. The TiVA database contains a range of indicators measuring the value added content of international trade flows and final demand. The indicators are derived from the OECD's Inter-Country Input Output (ICIO) Database.

925. The OECD Trade in Value Added initiative is an OECD horizontal project involving three core OECD directorates (the Statistics Directorate; the Directorate for Science, Technology and Innovation; and, the Trade and Agriculture Directorate). To derive the TiVA indicators, national supply and use tables (SUTs), input-output (IO) tables, national accounts data and international trade statistics are combined into a single global SUT from which the Inter-Country Input Output table is derived.

926. The OECD Supply and Use Statistics Programme consists of the collection of supply and use tables at purchaser's prices and use tables at basic prices, with corresponding complementary valuation tables showing, separately, the contribution of margin activities (trade and transport) and taxes and subsidies.

927. The OECD supply table follows the standard framework of the supply tables. Values of output by industry (for each product) are shown in basic prices; imports by product are requested at CIF prices with a CIF/FOB adjustment to ensure that total imports are at FOB prices; trade and transport margins, and taxes less subsidies on products, complete the supply table allowing total supply by product to be recorded at basic prices. In addition the OECD questionnaire contains a number of additional items considered important for TiVA and GVC policy making more generally. The questionnaire requests that supplementary information on imports (by products) on a FOB basis is also provided as well as column of residents expenditures abroad by product. In addition the questionnaire requests that the trade margin columns are separately broken down into contributions made by wholesale/retail and transport, with similar breakdowns for taxes and subsidies.

928. Output is broken down by products according to the CPA classification at the A88 level and by activities according to ISIC Rev.4 classification at the A88 level.

929. CIF/FOB adjustment on imports, direct purchases abroad by residents, total supply at basic prices, trade and transport margins, trade margins, transport margins, taxes less subsidies on products, taxes on products, subsidies on products and total supply at purchaser's prices are broken down by products according to the CPA classification at the A88 level.

930. Output series for total economy are also broken down according to market output, out for own use, and non-market output.

931. The OECD use at purchaser's prices tables records expenditures on intermediate consumption, final consumption expenditure by households, (including a separate supplementary column of direct purchases by non-residents), final consumption expenditure by non-profit institutions serving households, final consumption expenditure by general government, gross fixed capital formation, changes in inventories, acquisition less disposals of valuables and exports (and complementary columns of re-exports, exports on second hand goods, merchanting and total supply at purchaser's prices).

932. Intermediate consumption is broken down by products according to the CPA classification at the A88 level and by activities according to ISIC Rev.4 classification at the A88 level.

933. Final consumption expenditure by households, direct purchases by non-residents, final consumption expenditure by non-profit institutions serving households, final consumption expenditure by general government, gross fixed capital formation, changes in inventories, acquisition less disposals of valuables, exports, re-exports, exports on second hand goods, merchanting and total supply at purchaser's prices are broken down by products according to the CPA classification at the A88 level. All these series are also broken down by domestic output used and import used.

934. In addition, the database includes value added broken down by activities according to ISIC Rev.4 at the A88 level as well as by its components: compensation of employees; wages and salaries; other taxes less other subsidies on production; gross operating surplus and mixed income; gross mixed income; net operating surplus and mixed income; and consumption of fixed capital. It also requests information on gross fixed capital formation, gross fixed assets, total employment and employees broken down by activities according to ISIC Rev.4 at the A88 level.

935. The OECD use at basic prices tables contains values of intermediate consumption, final consumption expenditure by households, direct purchases by non-residents, final consumption expenditure by non-profit institutions serving households, final consumption expenditure by general government, gross fixed capital formation, changes in inventories, acquisition less

disposals of valuables, exports, re-exports, exports on second hand goods, merchanting and total use at basic prices.

936. The intermediate consumption is broken down by products according to the CPA classification at the A88 level and by activities according to ISIC Rev.4 at the A88 level.

937. Final consumption expenditure by households, direct purchases by non-residents, final consumption expenditure by non-profit institutions serving households, final consumption expenditure by general government, gross fixed capital formation, changes in inventories, acquisition less disposals of valuables, exports, re-exports, exports on second hand goods, merchanting and use at basic prices are broken down by products according to the CPA classification at the A88 level. All these series are also broken down by domestic output used and import used.

938. The OECD valuation tables contain values of trade and transport margins, taxes less subsidies on products, taxes on products, subsidies on products, taxes less subsidies on products excluding VAT and VAT broken down by type of use (intermediate consumption broken down by activities according to ISIC Rev.4 at the A88 level, final consumption expenditure, gross capital formation, exports) and by products according to the CPA classification at the A88 level.

939. Data are collected directly by the OECD SUTs questionnaire.

8.2.2. Compliance

940. The points of reference for the methodological assessment, or "compliance", are international standards. In particular, the current international guidelines and recommendations for the compilation of international trade is the United Nations International Merchandise Trade Statistics: Concepts and Definitions 2010 (IMTS 2010) manual, while for SUTs the current international guidelines and recommendations for the compilation of supply and use tables is the System of National Accounts 2008 (2008 SNA). To the extent possible, countries should follow the 2008 SNA and in cases where divergences occur, countries should describe these in accompanying metadata.

941. At present, the OECD is drafting a handbook for compilers on linking trade and business statistics, which will offer information on the microdata linking exercise relating to TEC. In terms of materials immediately available, Eurostat has published a "Statistics Explained - International Trade by Enterprise Characteristics" article[93]. The compliance of the business register of Costa Rica is covered in full in chapter 2 of this review.

8.2.3. Interpretability (Metadata requirements)

942. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, in order to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet.

8.2.4. Timeliness

943. All international trade data as required by the OECD for the monthly 'OECD International Trade News Release', quarterly 'OECD Quarterly International Trade Statistics' publication, and annual 'Trade by Enterprise Characteristics' tables should be made available on a timely basis in

[93] http://ec.europa.eu/eurostat/statistics-explained/index.php/International_trade_by_enterprise_characteristics

order to meet the schedule of these releases. The OECD, and following EU legislation, requires countries to provide aggregated monthly trade statistics within 40 days after the reference month and 70 days for the detailed monthly trade statistics. These timeliness requirements ensure that the OECD needs for releases are met.

944. All supply and use data as required by the OECD should be made available on a timely basis not least to meet the schedule of the TiVA project. The new OECD SUTs questionnaire was sent for the first time ever to countries in February 2016. Costa Rica was one of the first countries to reply with their data to the OECD in April 2016.

945. In general terms of timeliness, it's important that countries provide data or that data be available at the same time or immediately after they are released nationally. It is also recommended that fixed and unchangeable release dates for international trade data be published in English at least 12 months in advance. Such advance announcements ensure transparency and strengthen the perception of objectivity of the data dissemination.

8.2.5. Data and metadata transmission

946. The OECD prefers that countries provide the required data via a SDMX flow. However, other transmission options are accepted, e.g. Excel files, web-queries, etc., if the country has not yet implemented SDMX.

947. Methodological information for international trade, TEC and SUTs time series should be transmitted by countries in the OECD questionnaires. However, the Secretariat recommends that all metadata be made available, in English, on the internet to strengthen transparency and facilitate the use of international trade statistics by external users.

8.3. Evaluation of international trade statistics of Costa Rica

8.3.1. International merchandise trade statistics

948. International merchandise trade statistics in Costa Rica is a domain in which several institutions intervene: the BCCR, INEC, PROCOMER[94], Customs, and the Ministry of Foreign Trade. An informal group with representatives of these agencies was created in 2011 in order to reach consistency in the results and processes.

949. INEC is officially responsible for international merchandise trade statistics and ensuring that these are compiled according to IMTS 2010. INEC disseminates IMTS to the UN for the UN COMTRADE database and supplies the OECD with the headline monthly series. The BCCR also collects IMTS as it is required for the compilation of balance of payments and national accounts. In January 2016, INEC introduced a new computer processing system for international merchandise trade statistics which allowed it to fully implement the IMTS 2010 recommendations (with a notable exception that the country of last destination isn't available as Customs do not capture this variable).

950. As in all countries, the original source data comes from Customs who cover the operations of enterprises and individuals as well as the special regimes. The General Trade System is used, thus covering the entire economic territory (excluding illegal trade). As recommended, the BCCR excludes flows recorded under country codes 950 and 188 as they represent the sales from regular Costa Rican enterprises to enterprises in the free trade zones. However, INEC includes these flows and a footnote explains that they represent the sales from/to regular Costa Rican enterprises

[94]PROCOMER is the agency for promoting exports.

to/from enterprises in the free trade zones. The basic information for each declaration includes: date of issue, customhouse permit number, tariff item, gross FOB/CIF value in US dollars, grow weights in kilos, country of origin/destination, shipping date, exporter/importer code. Coding is consistent, at four-digit level with the Harmonised System. Using the Customs software (TICA in Spanish), declarations are processed daily. It is a dynamic processing system as revisions can be made to the already processed information.

951. Basic data are divided into two major categories: general merchandise and special regimes' merchandise. The former includes all goods imported or exported by individuals or legal entities outside of the special trade regimes. The latter include goods imported or exported by enterprises that are part of one of the special regimes.

952. The BCCR publishes monthly aggregated exports valued at FOB and monthly aggregated imports valued at CIF by main products and main countries, and a trade balance[95]. Since March 2017, the BCCR publishes breakdowns between the different trade regimes by product and country starting from 2012. First preliminary data are disseminated three weeks after the end of the reference month. One month after the reference month, a more complete database is obtained from Customs which is then compared to the PROCOMER database and used to revise the BCCR monthly dataset. Times series span from 1996 (or 1997) to the latest month.

953. INEC publishes monthly trade data which can be broken down by a number of variables: regimes, HS classification, country, and region of the customs office. INEC transmits international trade in goods data to UN COMTRADE within 40 days after the end of the relevant month. INEC has an online interactive international trade webpage[96] which allows access to the monthly trade figures.

954. Regimes relate to the customs procedures, with declarations broken into three categories – final exports or imports, imports/exports of goods for processing (a customs regime that allows goods to enter the national customs territory with suspension of all taxes and surrender under warranty), and exports/imports from free trade zones. Free trade zones are, by definition, primary customs and tax operations in designated areas. They are designated as facilities for conducting economic operations based on imported inputs and raw materials, manufacturing and assembly or the marketing and sale of products and the development of services for export. They are an area bounded with no resident population, authorised by the government.

955. The tariff classification is as follows: 2 digits - chapter (international HS code); 4 digits - headings (international HS code); 6 digits - sub-headings (international HS code); 10 digits - tariff item (Central American Tariff System classification); and 12 digits - traffic item (national code). In the case of Costa Rica, the Directorate General of Customs under the MdH along with the Ministry of Foreign Trade is responsible for the last two digits (9 and 10 of the classification). It should be noted that the Central American Tariff System (SAC) is based on the international Harmonised System.

8.3.1.1. Timeliness

956. During the review, INEC improved the timeliness of monthly international trade data available. At the time of writing this report, INEC supplies the Secretariat with the required monthly headline international trade indicators (exports and imports) and the data supplied meet OECD timeliness requirements.

[95] http://www.bccr.fi.cr/bccr_home_page/economic_indicators/foreign_sector.html

[96] http://www.inec.go.cr/sicce/sicce_hacienda/

8.3.1.2. Coherence

957. While it would be optimal if there was only one official 'number' for international merchandise trade statistics in a country, it isn't unusual for different official statistics agencies in OECD countries to publish trade figures that are not identical. It is, however, important that there is coherence in the accounts e.g. national accounts, balance of payments, TEC, etc., and their use of international trade statistics. It is also important that users can feel confident that the international trade data being disseminated by one official statistics agency is 'coherent' with estimates from other official statistics agencies, in this case INEC and the BCCR (and PROCOMER if they disseminate international merchandise trade statistics). One way to assure users would be for INEC and the BCCR to produce some joint official metadata on why any differences exist, and how this does not impact on the quality and the usefulness of the statistics (and which figures users should use depending on their needs). At the time of writing this report, INEC, along with the joint group, is developing a methodological sheet (metadata) and a methodological manual for users in order to explain the main differences between institutions in the processing of international trade statistics.

8.3.1.3. Data and metadata transmission

958. The OECD Secretariat has the option to source monthly international trade data directly from INEC's website since INEC is the agency responsible for IMTS data in Costa Rica, and that methodological reasons support the implementation of a regular data transmission from INEC. However, the OECD has experienced some limitations with the website in its capacity of collecting data from INEC on a regular basis. While the data on the INEC's website is provided in whole USD amounts (and kilos) but not seasonally adjusted. At the time of writing this report, INEC is working on the seasonal adjustment of exports and imports and the publication of this data is scheduled in the first half of 2020.

959. Moreover, the INEC website for international trade data is only available in Spanish (including the limited metadata[97]) and could not be considered user friendly. In response to OECD requests and in order to ensure a timely transmission, INEC regularly supplies the OECD with a timely monthly Excel file.

8.3.1.4. Costa Rica's special trade regimes

960. One very important aspect of foreign trade in Costa Rica is the importance of free trade zones and special trade regimes. Costa Rica is one of the largest countries for FDI in the region. Several multinationals have implemented part of their worldwide production processes in Costa Rica[98].

961. There are two main special regimes currently active in Costa Rica: the Free Zone Regime (Régimen de Zonas Francas, FZR) and the Inward Processing Regime (Régimen de Perfeccionamiento Activo). The Government grants accession to both of them, which are administered by PROCOMER. These special regimes are equally accessible to both nationals and foreigners. Specifically, the difference between both regimes is the type of companies that are

[97] http://www.inec.go.cr/anda4/index.php/catalog/135

[98] The most well-known one is Intel, which had, up to 2014, a chip factory of more than 1500 workers in Costa Rica. Intel exports represented over 20% of Costa Rican total goods exports. Intel has since moved the factory to Asia, but kept a significant R&D unit in Costa Rica which has been expanded to a level of employment similar to that of the former chip manufacturing operation.

eligible to apply for the benefits. Moreover, the list of incentives and requirements is different for both regimes.

962. One of the most successful policy tools that Costa Rica has enacted to attract FDI is the FZR. It is a system of incentives and benefits, which the state grants to companies that meet certain investment requirements and comply with certain requisites and obligations established in the law. It is ruled by the Free Zone Regime Law (Law No. 7210 of 23 November 1990) and its amendments, as well as by Executive Decree No. 34739-COMEX-H from 2008 and its amendments.

963. To qualify under the FZR, companies must be classified under at least one of the following categories: (Category A) export-processing industries; (Category B) trading companies; (Category C) service industries; (Category Ch) free zone park-managing companies; (Category D) companies or organisations engaged in scientific research; and (Category F) processing companies, whether they export or not. Furthermore, applicant companies must meet a number of conditions.

964. The FZR grants foreign and domestic companies tax breaks for their investments in the country, including full or partial exemption from corporate income tax; full exemption from customs duties on import/exports tariffs (intermediate capital goods, raw materials and other inputs); full exemption from local taxes (sales, excise, fees, dividends and royalties); and full exemption on withholding taxes for remittances abroad. Beneficiaries of the FZR can receive additional exemptions in case of significant re-investment or for investment in a new project.

965. Processing companies (Category F) can claim credits against taxable income for expenses incurred in training employees and domestic suppliers classified as SMEs that do not operate under the FZR, as well as against earnings reinvested in Costa Rica. Investment requirements vary depending on whether the company operates within or outside an industrial park and within or outside the Expanded Great Metropolitan Area (Gran Área Metropolitana Ampliada, GAMA).

966. The Inward Processing Regime is ruled by the General Customs Law (Ley General de Aduanas, Law No. 7557 of 20 October 1995), the Regulations to the General Customs Law (Reglamento a la Ley General de Aduanas, Executive Decree No. 25270 of 14 June 1995) and the Regulations to the Inward Processing Regime (Reglamento del Régimen de Perfeccionamiento Activo, Executive Decree No. 34165-H-COMEX). The Inward Processing Regime enables goods to enter the national customs territory and benefit from the full suspension of taxes, including customs duties, subject to the posting of a guarantee bond.

967. Specifically, companies that assemble, reassemble and/or transform their production may apply to the Inward Processing Regime to the extent that their products are exported or re-exported within the time limits determined by legislation or, in some cases, consumed locally (prior payment of applicable domestic taxes). To be eligible under this regime, it is not necessary to fulfil any requirement of value added. There are two modalities: (i) 100% re-export: whereby companies re-export the totality of their production to other countries; or (ii) re-export (direct and indirect) and local sale: whereby companies re-export part of their production and sell the other part in Costa Rica (and therefore pay applicable domestic taxes).

968. Companies operating under the Inward Processing Regime can import raw materials, machinery and equipment, with full suspension of customs duties and import taxes such as tariffs, VAT, excise taxes and an ad valorem tax assessed at a 1% tax rate (when applicable). However, all imported raw materials and products must be later re-exported within a limited time frame that may vary depending on the type of product being imported. Nonetheless, prior to re-exportation, all imported products must be subject to a transformation, reconstruction, assembling or reparation process, or must be incorporated into the machinery or equipment being used as part of the on-

going business of the company. It is worth noting that this regime has been losing importance over the years in relative magnitude to exports (10.2% in 1997 to 1.3% in 2015).

8.3.2. Trade by enterprise characteristics (TEC)

969. During the review, the BCCR has provided the completed OECD TEC questionnaire to the OECD with 2016 data as a test case. The BCCR could be considered a leader in the field of TEC statistics, as they have implemented software that links international trade (namely monthly imports, CIF basis and exports FOB basis, as well as taxes, geographical breakdowns, name of the importer/exporter, the specific good that is been traded, etc.) with in-house BCCR databases, and also with information provided by the MdH. This final linked database includes all TEC relevant variables such as: employment, the firm's activities (ISIC), firm size, etc., and the OECD expects to receive an updated TEC questionnaire by end of mid-2020.

970. Costa Rica produces the TEC database by integrating the following sources of data into their customised software (DEI), developed by the BCCR:

- Economic Variables Register of the Central Bank (REVEC). The REVEC has company statistics (classified by ISIC Rev.4; sales; employment; and the type of ownership, either foreign-owned or nationally-owned) linked to each particular company ID.
- International trade registers. Customs provides a dataset of exports and imports comprising tariff heading, HS, country of departure, country of destination, importer's ID, insurance, freight, etc. The BCCR adds other classifications such as CPC and BEC.
- The MdH special report form "D151". All companies must submit this form to the MdH yearly. This is a very detailed administrative record that shows annual who-to-whom transactions. It is provided by companies with information about their sales and purchases. Each company declares its sales and purchases by counterpart for amounts higher than the equivalent to 4700 US dollars in a fiscal year. The firm that makes the declaration is called the "Reporter", each reporter must record the value and the company ID ("reported") involved in the specific sale or purchase.

971. As part of the microdata linking exercise, the Macroeconomic Statistics Department within BCCR matches companies listed within the international trade register and REVEC according to the ID of the exporter or importer, so that it is possible to classify wholesalers' sales by economic activity. Furthermore, this enables the BCCR to know which company is importing the product and its related data (Industry classified by both ISIC Rev.4 and the Standard Classification of Economic Activities for Costa Rica, Product by Standard Classification of Products for Costa Rica and CPC Rev.2, as well as other key variables such sales, number of employees, turnover, etc.).

972. Through this TEC microdata linking exercise, the DEI software ensures:

- An automated system capable of different types of matching weights in order to maximise coverage within the TEC database.
- An important input in the compilation of an import matrix that shows all purchases of imported goods (import flow matrix). A document that lays out the use of the TEC data in the compilation of an import matrix was supplied to the OECD and is available on request.

- The capacity to classify trade data by activity sector and enterprise size class; concentration of trade by activity; trade by partner countries and activity; trade by number of partner countries and activity; trade by commodity and activity; and trade by type of ownership.

973. Considering the 2013 data sent as a test case, the BCCR has provided the following information:

- Trade by activity sector and enterprise size class;
- Concentration of trade by activity;
- Trade by partner countries and activity;
- Trade by number of partner countries and activity;
- Trade by commodity and activity; and,
- Trade by type of ownership.

974. However, four datasets are missing, namely:

- Trade by type of traders;
- Trade by exports intensity;
- Trade by activity sectors; and,
- Trade by partner countries and size-class.

975. Overall there are 12 129 observations, of which 4 582 are non-zero. Assuming zeros are the missing values (which may not necessarily be true); the rate of completion is around 38%, in terms of observations.

976. As stated, given the new linked system, the BCCR will provide, on an annual basis, the completed OECD TEC questionnaire with the associated metadata by end-2019.

8.3.3. Supply and use tables

977. Costa Rica provided SUTs to the OECD, according to the 2008 SNA methodology, for the years 2012, 2013, and 2016 using industry classification ISIC Rev.4.

978. Costa Rica has transmitted to the OECD, current prices data for supply and use at purchaser's prices and data for use at basic prices and valuation tables. Moreover, Costa Rica has also transmitted to the OECD data for use table for domestic output, and use table for imports at purchasers' prices and basic prices. Therefore the thirteen tables of the OECD SUTs questionnaire were completed. In addition, previous year prices were sent for SUTs at purchaser's prices.

979. It is important to note that, currently, Costa Rica is the only country which has provided previous year prices series to the OECD. This effort is greatly appreciated and will help the future development of OECD indicators on productivity analysis.

980. Concerning activity and product breakdown, as requested by the OECD, Costa Rica provided SUTs in ISIC Rev.4 classification for industry and the CPA classification for products. Moreover Costa Rica provided detailed series for nearly the whole A88 breakdown (available for both activity and product).

981. While the OECD was not able to find SUTs metadata in English on the BCCR website, in working very closely with the BCCR in sourcing the SUT data a good knowledge of the statistics

has been built up by the OECD (metadata in English are expected from the BCCR by end September 2019). Nevertheless annual national accounts metadata in Spanish can be found on the BCCR website[99].

982. Costa Rica has been an active participant in the TiVA project since 2013. While the BCCR is responsible for compiling national accounts in the country, given the profile of TiVA in the international arena the Ministry of Foreign Trade (COMEX) was actively involved in the initial stages and data provision. At first, Costa Rica transmitted to OECD a first version of an approximate IO table, prepared by an academic. Then, in collaboration with the Japanese JTRO, they developed a second version, which was transmitted to OECD in 2013, and incorporated in the first TiVA round. Costa Rica is incorporated in the latest version of the TiVA database.[100]

8.3.4. Extended SUTs

983. The development of Extended SUTs is not a requirement of candidacy. However Costa Rica is a member of the OECD Expert Group on Extended SUTs and is conducting cutting edge compilation in this area. Costa Rica has traditionally been an exporting and importing country with exports representing around 32% of GDP and imports 36%. Firms in free trade zones and others agricultural economic activities, whose production is mainly oriented to the external market, are accountable for around 66% of exports.

984. At the request of the OECD, and because of the evidence that points to higher integration of firms operating within free trade zones (FTZs) into GVCs compared with other firms, Costa Rica has compiled extended supply and use tables with a break down between those enterprises in free trade zones and those not (which will greatly improve the accuracy of Costa Rica's TiVA estimates). At the time of writing this report, there are almost four hundred enterprises in the free trade zones in Costa Rica. These firms differ in many aspects from firms that are mainly involved in production for the domestic market in terms of employ skilled workers, wages, ownership and investment.

985. Production and income accounts for the FTZs and by industry are compiled using detailed economic census data. Data for those enterprises not in the free trade zones is collected from an economic sample survey. Additionally, detailed administrative data is sourced for wages, employment, sales (external and domestic), investment and inputs by product. Imported and exported products (identified by firm) are aggregated according to CPC Rev.2 and incorporated into the product balances.

986. Enterprises are classified according to their main activity using ISIC Rev.4.

987. Costa Rica SUTs are compiled product by product at the level of 183 products and 136 economic activities. There is a breakdown between free trade zones and non-free trade zones in fifty economic activities including services. Additionally, exports and imports by product are released broken down into free trade zones and non-free trade zones (definitive regimen) separately.

988. Administrative data (tax records) reveal intercompany transactions so it is possible to identify free trade zones firms' purchases in domestic market. These data and product balances allow estimates for domestic and imported inputs. There is a separate estimate for re-exports, and also non-resident expenditures in the domestic economy and resident's expenditure abroad are recorded and allocated by product. Costa Rica follows BPM6, therefore goods imported for

[99] http://www.bccr.fi.cr/estadisticas_macro_2012/index.html

[100] http://www.oecd.org/sti/ind/TiVA_2015_Country_Region_List.pdf

processing but where ownership does not change are recorded as manufacturing services on physical inputs owned by others and not included in the SUTs. Administrative records allow the BCCR to track these flows at a detailed level.

989. The BCCR released SUTs broken down by economic activities in the FTZs and the definitive regimen. An additional split provides domestically produced products and the use of imported products. In each of the separate table, the matrix provides the breakdown between the free trade zones and definitive regimen. The breakdown is held both at the level columns and rows as well. An import matrix is compiled in order to give more consistency to the use of imported products. This breakdown is done for both intermediate consumption and the components of final demand (final consumption, capital formation and exports), with information based on the used components from product balances. Also, there is a breakdown by employment.

990. In the medium-term, the BCCR expects to develop a procedure that allows the recording of property income payments to abroad and from abroad by economic activities in the free trade zones.

8.3.5. Overall assessment of international trade statistics of Costa Rica

8.3.5.1. International merchandise trade

991. INEC is the official producer of monthly international trade statistics in Costa Rica. As several institutions intervene in this statistical domain, a joint group was created in 2011 to foster cooperation and to reach consistency in results and processes. Effective cooperation in this domain is indeed essential and providing users with more detailed information on the efforts made to reach this consistency, including the activities of this group, would be advisable.

992. Monthly international trade statistics produced by INEC meet the OECD requirements in terms of coverage, timeliness and compliance. INEC's new computer processing system introduced in January 2016, for international merchandise trade data has allowed full implementation of the United Nations' *International Merchandise Trade Statistics: Concepts and Definitions 2010* (IMTS 2010) recommendations.

993. As regards interpretability, INEC improved available metadata, and is working with the joint group on the development of developing detailed methodological information in English, including information on the main differences in the processing by the different institutions, which would represent a welcome improvement for users.

994. UN COMTRADE data shows that reported exports of Costa Rica present some large asymmetries with the mirror imports declared by some of its main partners. For instance, in 2011, large asymmetries occur with the US for the product 854231 (Electronic integrated circuits) as the exports of Costa Rica are less (by 23.4%) to the mirror imports declared by the US. Similar differences are observable for this specific product with partners such as China and Mexico. Costa Rica is investigating these trade asymmetries, and is willing to work with the OECD and the main trading partners identified to reduce them (the current thinking is that these asymmetries are being caused by multinational enterprises and their reporting).

995. The review concludes that international trade statistics produced by INEC broadly comply with OECD statistical requirements but the inter-institutional cooperation being essential to data quality, the reviewers expect that this cooperation will continue and be strengthened.

8.3.5.2. Trade by Enterprise Characteristics (TEC)

996. Costa Rica is amongst a small handful of non-EU OECD countries that supply the OECD with TEC data. In this regard, the reviewers encourage Costa Rica to continue this work and strengthen their DEI software and registers (the REVEC and the international trade register). The reviewers welcome the continuous improvements in quality of the data provided to the OECD, with the recent examples of the production of new reports highlighting two-way traders and export intensity, as recommended by the CSSP in 2017.

8.3.5.3. Supply and Use Tables (SUTs)

997. Costa Rica has been an active and energetic member of the OECD-WTO TiVA project and the OECD's Expert Group on Extended Supply and Use Tables. Indeed, concerning Costa Rica's role in the ESUTs, Costa Rica has proven to be very much at the front of the curve for other countries and BCCR's work here is highly commended.

998. This excellent cooperation has been equally evident in the transmission of Costa Rica's standardised SUTs to the OECD, Costa Rica was one of the first countries to complete the questionnaire and with a level of detail fully in line (indeed with constant price tables, above and beyond) OECD requirements. In other words, Costa Rica is in line with OECD statistical requirements.

999. One recommendation that would further help to showcase Costa Rica's ground-breaking work would be to provide more comprehensive metadata information on BCCR's website in English. As a first step towards this recommendation, the BCCR made the following documents available on its official website:

- Costa Rica: *An Extended Supply-Use Table*, Gabriela Saborío M. (BCCR), Paper prepared for 23rd International Input Output (IIOA) Conference, México City, México.
- *Costa Rica Import Matrices Compilation: Proportionality Assumption and Tracking Imported Inputs, Country Progress Report*, Second Meeting of the OECD Expert Group on Extended Supply-Use Tables, 12-14 October 2015, Paris, France.
- *Costa Rica: An Extended Supply-Use Table, Country Progress Report*, Second Meeting of the OECD Expert Group on Extended Supply-Use Tables, 12-14 October 2015, Paris, France.

Chapter 9. BALANCE OF PAYMENTS AND INTERNATIONAL TRADE IN SERVICES STATISTICS

9.1. Background

1000. This chapter presents the review of balance of payments and international trade in services statistics as part of the accession process of Costa Rica to the OECD.

1001. The present assessment is based on the data and metadata submitted by Banco Central de Costa Rica (BCCR, Central Bank of Costa Rica) via the OECD questionnaire, the IMF Special Data Dissemination Standards metadata[101] and the 2010 IMF "Costa Rica: Report on the Observance of Standards and Codes – Data Module, Response by the Authorities, and Detailed Assessment using the Data Quality Assessment Framework (DQAF)". Additionally, in December 2015 the BCCR provided the OECD with a report on the adoption of the recommendations from the Balance of Payments and International Investment Position Manual, sixth edition[102] (BPM6) of the International Monetary Fund (IMF): "Costa Rica: Adoption of the Sixth IMF Balance of Payments and International Investment Position Manual (BPM6) - Methodology".

1002. In Costa Rica, balance of payments (BOP) and international trade in services statistics are compiled and disseminated by the BCCR.[103] The External Sector Statistics Area (AESE, its acronym in Spanish) in the BCCR's Department of Macroeconomic Statistics is responsible for the compilation and dissemination of balance of payments statistics.

1003. In December 2016, Costa Rica provided a set of annual international trade in services statistics, by Extended Balance of Payments in Services (EBOPS 2010) category for the period 2000-2015. The BCCR plans to release data by partner country (an OECD requirement) by the end of 2019. Full metadata has been provided, using the recommended standard country template.

9.2. OECD Data and Metadata Requirements for BOP statistics

9.2.1. Coverage

1004. The OECD requires quarterly balance of payments data for a set of time series named OECD 'core' series. There are 45 quarterly core raw series required plus 15 seasonally adjusted core series. The time series cover the current, capital and financial account items, namely: goods; services; primary/secondary income; gross acquisitions/disposals of non-produced non-financial assets; capital transfers; direct/portfolio/other investment; financial derivatives; and reserve assets. In addition the series 'net errors and omissions' is requested. The move from the BPM5 to BPM6 saw a number of changes, in particular there was a need to better capture the break between goods and services (given the increase of globalisation in the production system) and this resulted in merchanting now being captured in the goods account. This is an important programme of work for the OECD and as such the core series requested from countries include - goods acquired under

[101] http://dsbb.imf.org/Pages/SDDS/DQAFBase.aspx?ctycode=CRI&catcode=BOP00

[102] https://www.imf.org/external/pubs/ft/bop/2007/bopman6.htm

[103] Chapter 1 discusses the legal environment of GCCR for surveying non-financial enterprises (a major source of input data for BOP statistics).

merchanting (negative credits); and goods sold under merchanting — note that for both items only the credit and balance is required.

1005. In regards to the seasonally adjusted BOP series, there are 15 quarterly core series: credit/debit/balance in the current account for - goods, services, primary income and secondary income. In the case of seasonal adjustment, while the OECD prefers countries to undertake their own seasonal adjustment, given that they are national experts and expected to understand the national situation better than international statisticians; the OECD will undertake the seasonal adjustment itself if only raw data is provided. The OECD uses the JDemetra+ software, which allows for the choice between TRAMO-SEATS and X13-ARIMA, and follows the ESS Guidelines on Seasonal Adjustment (2009).

9.2.2. Compliance

1006. The definitions and compilation methods used for BOP should comply with the concepts outlined in the *Balance of Payments and International Investment Position Manual*, sixth edition[104] (BPM6) of the International Monetary Fund (IMF). Since many countries recently transitioned from BPM5 to BPM6, information on the implementation plans, the schedule followed and any general information e.g. changes in surveys, to meet the new criteria outlined in the sixth edition Manual are welcomed. While not required by the OECD Statistics and Data Directorate, countries should ensure that any further breakdowns of BOP statistics, e.g. by activity, should follow international classifications, i.e. ISIC Rev.4.

9.2.3. Interpretability (Metadata requirements)

1007. For OECD purposes it is strongly recommended that metadata be available in English and easily accessible over the internet. For balance of payments statistics, the OECD requires information on sources, national data provider and publisher, data collection systems, thresholds for data reporting (if any), national reference publications, international guidelines and manuals used, periodicity, breaks in the time-series and websites disseminating statistics.

9.2.4. Timeliness

1008. It is important that countries provide data or that data be available at the same time, or immediately after, they are released nationally. Ideally, quarterly data should be available within the end of the next reference period (i.e. within three months). Annual data should be available within 4-6 months after the reference year.

9.2.5. Data and metadata transmission

1009. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users, too. The BOP Data Structure Definition[105] (DSD) is now official after having been agreed to between the main sponsors (BIS, ECB, Eurostat, IMF and the OECD).

1010. In the meantime, the OECD is flexible and endeavours to work with each country to find the most efficient and effective solution that will guarantee regular, ongoing transmission of data.

[104] https://www.imf.org/external/pubs/ft/bop/2007/bopman6.htm

[105] http://sdmx.org/?p=1439

For balance of payments statistics, it would be ideal if data were transmitted via a XML/SDMX query as soon as they are released or available. However, Excel is an acceptable format and used by a number of OECD member countries. The BCCR is currently working on the development of the SDMX technological platform to summit data to OCDE as well as to IMF.

9.3. Evaluation of Costa Rica's Balance of Payments Statistics

1011. The External Sector Statistics Area (AESE) of the Macroeconomic Statistics Department (DEM) of the Economic Division (DE) at the BCCR is responsible for the production of balance of payments statistics in Costa Rica, and for the reporting of this data to the international community.

1012. The Organic Law of the BCCR (Law No.7558 of November 3, 1995, revised February 23, 2015) does not specifically mandate the BCCR to produce and disseminate BOP statistics, even if Article 14(d) of the law requires that the BCCR shall publish a monthly statistical summary of the economic situation of Costa Rica, which shall include BOP statistics. The inter-institutional agreement signed with INEC in 2008 establishes that statistics required to develop macroeconomic statistics will be produced by the INEC and the BCCR and includes a funding plan of INEC related activities by the BCCR.

1013. While the Law No. 7839 on the NSS does not specifically require that entities from the non-financial private sector provide information to the BCCR, whereas this information is an important input for the compilation of BOP statistics, the Law No. 9694 adopted in May 2019 strengthens the mandate of the producers of official statistics for data collection and clarifies the functions of the BCCR in the production of national accounts and macroeconomic statistics:

1) According to the article 16 of the new law, all natural or legal persons, resident in the country or not, are enforced to provide the statistical information and the administrative records that the public institutions of the SEN (Spanish acronym for National Statistical System) request from them.
2) The article 4 of the new law establishes that the designation of the institutions that make up the SEN will be appointed by the Council of the INEC through agreements, based on the institutional production obligations of the official statistics established in the PEN (Spanish acronym for National Statistical Plan), and updated as stipulated in the regulations of the law.
3) Article 34, paragraph g) of the new law states that the Central Bank of Costa Rica will be responsible for the compilation and dissemination of the national accounts and other macroeconomic accounts.

1014. There is no formal quality management in place as regards BOP statistics in Costa Rica but the quality of BOP figures is ensured jointly by two units at the BCCR, the unit responsible for the economic surveys and the AESE. Both units cooperate to further enhance relationship with the enterprises and ensure the quality of basic information collected for the production of BOP statistics. In addition, the IMF was widely consulted by the BCCR over the past years to support the implementation of international standards of quality for BOP statistics.

9.3.1. Coverage

1015. The BCCR publishes quarterly BOP data according to BPM6 from 1999 Q1. Annual data according to BPM5 were previously available from 1950 and quarterly data from 1999 (when the quarterly survey was introduced). Seasonally adjusted time series are available for the core current account items, including travel (15 series[106] in total). The time coverage of BOP statistics for Costa

[106] http://www.bccr.fi.cr/indicadores_economicos_/ServicioWeb.html

Rica complies with OECD requirements and is comparable with those provided by OECD member countries.

1016. Additional breakdowns are compiled for FDI, where data are available by country of origin/destination, by economic activity receiving the investment, and economies receiving the investment.

1017. The compilation process is undertaken in US dollars (USD). Data are either collected in USD (surveys and administrative data) or converted before being downloaded into the BOP on-line database. All BOP data disseminated by the BCCR is only available in USD.

9.3.2. Compliance

1018. The BCCR has compiled BOP statistics in accordance with recommendations in BPM6 since June 2014. The impact of the move from BPM5 to BPM6 on the current account balance, measured as a percentage of GDP, was as follows: -5.3% to -5.2% for 2012, -5.0% to -4.9% for 2013, and -4.7% to -5.0% for 2014. Variations are mostly attributed to the methodological change on the goods for processing without a change in ownership.

1019. Goods being processed in the domestic economy while ownership remains abroad results in neither an import nor export of goods being recorded in the domestic economy but instead as an export of services - manufacturing services on physical inputs owned by others. According to the investigation carried out by the BCCR, 40% of the total exports from Free Trade Zones (on average between 2012 and 2014) correspond to processing on imports where ownership remained outside of the domestic economy.

1020. One aspect of international trade in Costa Rica, and thus the balance of payments (and the international investment position), is the importance of free trade zones and special trade regimes. Costa Rica is one of the largest countries for Foreign Direct Investment (FDI) in Central America, and several multinationals have implemented part of their worldwide production processes in Costa Rica. For example, Intel, which had until 2014 a chip factory employing more than 1 500 workers, and exports representing up to 20% of the country's total exports. Intel has since moved its factory to Asia, but has kept a significant R&D unit in Costa Rica (important for international trade in services and BOP statistics).

1021. As regards sources, data used in the compilation of BOP statistics are obtained from surveys and administrative records and other internal and external sources. These data are then compiled into estimates according to the BPM6 methodological guidelines. External debt data are compiled by the BCCR according to BPM6 methodology and requirements.

1022. The BCCR undertakes seven BOP specific surveys, all structured to provide data for the BPM6 methodology. The population for these surveys includes all national companies, engaging in international transactions, as available in the following registers: Costa Rican Social Security (CCSS); MdH; and the Register of Economic Variables (REVEC – maintained by the BCCR).

1023. The seven surveys are:

1. Balance of payments and international investment position survey (ECID-BdP) – An annual survey from 1990 to 1999 when it became both a separate quarterly and annual survey.
2. Accounts receivable and payable of main exporters and importers survey – Annual survey started in 2012 and quarterly from 2016.

3. Remittances survey[107] – A biennial survey started in 2003. Surveys immigrants who have been living in Costa Rica for more than a year and Costa Rican migrants living outside the country.
4. Frontier workers survey – A biennial survey started in 2011 (specifically for BPM6). Surveys foreign workers and foreign and national border crossing workers.
5. Coordinated surveys of services (CSS) survey – This is a quarterly survey which has been running since 2010 and an annual survey which started in 2011. As of Q3-2018 this survey has become more focused on international trade in services and the enterprises undertaking these (and is now known as the Special Respondents Survey). This survey is now the main source for quarterly international trade in services compilation (other than travel services).
6. Medical services to non-residents survey – Annual survey started in 2009. The survey is carried out in coordination with PROMED[108].
7. Coordinated Portfolio Investment Survey (ECIC). The AESE asks the following institutions to complete the questionnaire each quarter: General Superintendency of Financial Intermediaries (SUGEF), General Superintendency of Securities (SUGEVAL), General Superintendency of Pensions (SUPEN), and General Superintendency of Insurances (SUGESE).

1024. These surveys represent a sample of 980 companies, of which 515 are surveyed on a quarterly basis. The annual ECID-BdP survey is a sample survey that includes the most representative companies in the national economy and those operating under special regimes (a sample of 460 respondents as of the end of 2015). Because it is a sample based on pure identification criteria, the sampling error cannot be determined. However, the representativeness of the results of the survey is evaluated by comparison with the principal components of the BOP. The quarterly ECID-BdP survey on the other hand, has samples that have increased coverage from 100 enterprises in 2001 to 270 in 2015. As can be seen, Costa Rica does not have many enterprises undertaking international transactions, and according to the BCCR during the February 2015 kick-off mission, 85 enterprises account for 85% of the total BOP. Alternative sources are used in case of non-response and for estimation procedures.

1025. In addition, data are obtained from various other administrative data sources and surveys undertaken by other government entities. These include: Foreign Trade Promotion Enterprise (PROCOMER), Directorate General of Customs (DGA), Costa Rica Investment Promotion Agency (CINDE), Costa Rican Tourism Board (ICT), Debt Management and Financial Analysis System (DMFAS), Bloomberg Database, Bank for International Settlements (BIS) and National Registry of the Property.

1026. Finally, an economic study coordinated with the MdH provides additional information to lead the available data up to an expansion to the census of companies. The BCCR uses its FDI collection to improve enterprise coverage as a whole for balance of payments and improve future sample designs.

1027. The BCCR experiences difficulties in measuring services (in particular construction and health services) and estimates some smuggling activities only, namely tobacco cigarettes. At the time of writing this report, research was being carried out in order to estimate smuggling volumes and values for other products such as clothing and liquor. In December 2018, the BCCR conducted a survey for the reference year 2017 to measure the compensation of seasonal workers, as well as,

[107]The Ministry of Foreign Affairs provides a list of Costa Ricans living aboard to establish a sample.

[108]The Council for the International Promotion of Costa Rica Medicine.

workers remittances, and contributions and benefits of the social security, and debt transactions of the non-financial private sector (which are not recorded on an accrual basis).

Goods

1028. Data is based on customs declarations obtained by the Directorate General of Customs. Exports are measured on a FOB basis and imports are valued both FOB and CIF. Adjustments are made for: (1) products whose final price is not specified at the time of shipping in the customs declaration; (2) the time of registration for goods shipped other than dates shown in the customs declaration; (3) the coverage of goods without customs records, such as goods procured in ports by carriers, transactions of border electricity, re-exports, remittances in kind; and (4) classifications, to allocate freight and insurance services costs from the imports.

1029. As regards the new item 'Net exports of goods under merchanting' identified in BPM6, the BCCR has not yet identified any case of trade of goods under merchanting, therefore no data is available under this category even if surveys used to collect data for external accounts include this question.

1030. Data are adjusted where no change in ownership is identified (i.e. manufacturing services, repair services).

Services

1031. Manufacturing services on physical inputs owned by others – data are obtained from survey conducted by the BCCR further adjusted with the annual reports of the Special Trade Regimes. This includes visits to companies of the special regimes of free zones and inward processing (adding up 85% of exports), all the companies identified whose main business includes transformation. For these companies there is an annual financial statements reported to the Foreign Trade Promoter (PROCOMER) to which the BCCR has access, so that the information can identify the annual revenue from service transformation.

1032. Maintenance and repair services – the main sources are visits to different companies of the special regimes of inward processing and free trade zones were these services are undertaken. These allowed the Central Bank to identify the companies which main activity is the services of maintenance and repair. PROCOMER provides to the Central Bank an annual financial report for these companies, in the report the annual income can identified for these services and repairs.

1033. Transportation – For the services of transportation sources used include: Coordinated Direct Investment Survey FDI (now known as Special Respondents Survey), and annual and quarterly balance of payments in the case of air and sea transport. Surveys of the Coordinated Services for the case of land freight and passengers transport. Additionally, data from insurance and freight are obtained from the customs declarations.

1034. Travel – The main source is the Costa Rican Tourism Board (ICT) who obtain information from two sources: first, their own administrative records as well as those provided by the General Migration Directorate (DGME), and the second, is the results of the surveys conducted by the Macro-Planning and Development of ICT in all entry ports. This information allows for foreign expenditure from tourism, and the average spending by foreign tourists, among other variables.

1035. The BCCR carries out two additional surveys in order to complement the information obtained from the survey ICT tourism, namely health and education services travel: annual survey of medical tourism, and the coordinated services quarterly survey (educational and medical services).

1036. Communications services – Communication services include postal and telecommunications services. The postal service includes those Costa Rican postal services with non-residents and has nationwide coverage. The telecommunications item includes payments from Costa Rican media companies to other companies abroad for the transmission of messages, lease of channels, among others.

1037. This category includes messaging services, and the source from which this information is obtained is the Coordinated Survey of Foreign Direct Investment and Balance of Payments and financial statements provided by media companies.

1038. Insurance services – Information is provided by the Superintendent of Insurance on borrowed/leased, reinsurance premiums, compensation and commissions paid/received by insurance companies.

1039. Financial services – Financial services include dues from fund managers, credit card services, fees and commissions on securities transactions, implicit fees paid and received on bond trading, shares in activities regarding credit and other financial services. These data come from the Coordinated Survey of Foreign Direct Investment and Balance of Payments, as well as administrative records provided by the Superintendent of Financial entities (SUGEF), as well as the BCCR calculation's for financial intermediation services indirectly measured.

1040. Since 2013, the survey forms have been revised and amended to include financial institutions and corporations to improve the measurement of financial services category in the case of explicit commissions. In the case of financial intermediation services indirectly measured (FISIM), data from the financial statements from the SUGEF are used.

1041. Computer and information services – This item includes computer services and data processing services as well as databases and other information. The information source is the Coordinated Services Survey (software) and the Coordinated Survey of Foreign Direct Investment and Balance of Payments. Based on these data sources, the production accounts are calculated as well as the exported production which is used in the full balance of payments.

1042. Between services of affiliated enterprises n.i.e. – The data are taken from surveys of direct investment companies.

1043. Government services n.i.e. – This includes receipts of money received and payments by the embassies and consulates of Costa Rica located abroad (debit) and the payment for goods and services that are carried out by the embassies and consulates of foreign governments and located in Costa Rica (credit).

1044. In the case for the credit, a customised variant of the Balance of Payments Survey is used, as well as an estimate of the average spending in the country of the diplomatic staff accredited when it takes place in Costa Rica and from the Ministry of Foreign Affairs using for the calculation variables such as GDP of each country with an embassy or consulate in Costa Rica and the average propensity to consume for each. This procedure is applied when an embassy refuses to provide information directly to the BCCR.

1045. Debits are derived from the execution of the General Budget of the Republic taking the details of spending of the foreign service of the Government of Costa Rica abroad.

Primary Income

1046. Primary income include direct investment income, interest on the international assets of the BCCR, commercial banks, and the interest earned by private sector companies in regard of international trade credits, foreign deposits and loans. The MdH (in coordination with the BCCR)

provides the accrued interest on the foreign debt. Interest paid on private debt is obtained through the ECID-BdP survey.

Secondary Income

1047. Data are collected via surveys, to insurance companies and others and complemented with BCCR field work. Additionally the BCCR has access to reports on taxes, donations (cash and kind), remittances from workers, pension payments and gifts sent by mail (parcels).

Capital Account

1048. Data on external debt forgiveness is obtained from DMFAS and the ECID-BdP survey.

Direct Investment

1049. The ECID-BdP survey provides data for contributions of capital, reinvested earnings and debt transactions between companies. CINDE undertake an "Investment Intentions" survey which is incorporated. FDI in real estate data is obtained from the National Registry of the Property and the economic study.

Portfolio Investment

1050. The ECID-BdP survey and the MdH are the sources of data for portfolio investment official transactions (e.g. bonds issued by the public sector). For private sector transactions the Coordinated Portfolio Investment Survey (ECIC) provides the required data which comes from Superintendencies: Securities, Pensions, Insurances as well as Financial Intermediaries.

Financial Derivatives:

1051. Data on derivatives contracts stated on the balance sheets are obtained from survey data complemented with research.

Other Investment

1052. The BCCR and the MdH provide data related to government assets/liabilities and State Owned Enterprises. For the private sector, the ECID-BdP survey collects data of the non-financial private sector on commercial loans (granted and received), import and export advances, loans, and other transactions. For the financial sector data are collected from the balance sheets reported by the financial institutions to the Superintendencies. Resident deposits in foreign banks are compiled from various sources including data provided by the BIS.

Reserve Assets

1053. Reserves assets data are directly extracted from the BCCR's balance sheet.

9.3.3. Interpretability (Metadata requirements)

1054. Metadata produced by the BCCR on BOP statistics are available in English on the IMF's Dissemination Standards Bulletin Board (SDDS)[109] and on the BCCR website. The metadata are clear and updated regularly, as recommended by the subscription to the IMF SDDS.

[109] http://dsbb.imf.org/Pages/SDDS/DQAFBase.aspx?ctycode=CRI&catcode=BOP00

9.3.4. Timeliness

1055. According to the information available in the advance release calendar available in the BCCR website,[110] quarterly data are publicly released three months after the end of the reference period (i.e. first quarter is published around 30 June). This is in line with practices in OECD member countries. During the review process, the BCCR developed a 12-month a-head release calendar including release dates of BOP statistics.

9.3.5. Data and metadata transmission

1056. BOP data (raw and seasonally adjusted) in BPM6 format starting from 1999 Q1 are downloadable in Excel from the BCCR website.[111] Data are also available via the BCCR's web-service online database[112]. During the review process, the BCCR regularly sent a quarterly Excel file, with the required BPM6 items, to the OECD once the data were is released nationally (the first transmission took place for 2015 Q3 data). In the meantime, the BCCR progressively implemented SDMX and at the time of writing this report, is ready to test a web service using the BOP as pilot.[113]

9.3.6. Overall assessment of BOP statistics

1057. Overall BOP statistics for Costa Rica compiled and disseminated by the BCCR meet OECD requirements in terms of coverage, compliance, timeliness, interpretability, and data transmission.

1058. The coverage of BOP statistics meets OECD requirements, as data is available for all core OECD BOP items, including the seasonally adjusted core items, starting in 1999 Q1.

1059. Based on the available information, the methodologies used by the BCCR broadly comply with the recommendations published by the IMF's Balance of Payments Manual sixth edition (BPM6). There are some weaknesses in the compilation processes, e.g. medical services, construction, however these are being monitored and are small BOP items in relation to the total balance. Other new BPM6 items, for example merchanting, despite not currently taking place in Costa Rica, are still monitored via the quarterly BOP survey. The development of new important surveys (FDI census and a survey on cross-border and seasonal workers) demonstrates the BCCR's commitment to ensuring international comparability of BOP statistics. The BCCR provides metadata in both English and Spanish online and the facility to access the data via the BCCR's web-service online database is easy to use.

1060. The Law No. 9694 clarifies the legal mandate of the BCCR to compile BOP statistics and strengthens its mandate for collecting data, in particular from private sources. The BCCR has undertaken special efforts to ensure that respondents are motivated to provide the required information e.g. by personally visiting important respondents, or by organising annual events to showcase how the BOP data is used, including in the bank's macroeconomic programme in which BOP data play a major role. These initiatives enable to reach a response rate up to 80% for BOP

[110] http://indicadoreseconomicos.bccr.fi.cr/indicadoreseconomicos/Documentos/NEDD/Calendario-ing.htm

[111] http://indicadoreseconomicos.bccr.fi.cr/indicadoreseconomicos/cuadros/frmvercatcuadro.aspx?idioma=2&codcuadro=%202721

[112] https://www.encuestascentral.bccr.fi.cr/NSIWebService/default.aspx

[113] https://www.encuestascentral.bccr.fi.cr/NSIWebService/default.aspx

surveys. The Law No. 9694 should further help ensuring that respondents provide the required information.

1061. The BCCR uses its position in the public sector effectively to gather a very wide range of data from all other public administrative enterprises who record transactions between residents and non-residents, in particular the superintendencies, which provide a vast array of financial data.

1062. As far as the data transmission and integration into OECD reporting system is concerned, Costa Rican BOP statistics meet OECD requirements. The planned start of the pilot test implementation of SDMX by end September 2019, with the transmission of BOP statistics for Q2-2019, is welcome.

9.4. OECD data and metadata requirements for International Trade in Services Statistics

9.4.1. Coverage

1063. OECD Members are requested every year in December by SDD to update the BPM6/Extended Balance of Payments Services Classification, EBOPS 2010, questionnaires. The questionnaires ask for the following information: detailed international trade in services by partner country, and including partner world, for the full extended EBOPS 2010 classification.

1064. OECD Members are also requested to update a metadata file, on their compilation of international trade in services statistics, as prepared by the Task Force on International Trade Statistics (TFITS) and according to the EBOPS 2010 methodological standards. This metadata questionnaire is also used by Eurostat to collect international trade in services metadata from EU Member States.

1065. Countries are requested to provide detailed international trade in services statistics by EBOPS 2010 and by partner as far back as possible, but at least starting from 2010 as recommended by the Task Force on Statistics of International Trade in Services.

9.4.2. Compliance

1066. The definitions and compilation methods used for International Trade in Services should comply with the concepts outlined in the *Balance of Payments and International Investment Position Manual*, sixth edition (BPM6) of the International Monetary Fund (IMF) and with the *Manual on Statistics of International Trade in Services* (MSITS 2010). The categories of international trade in services statistics reported should be EBOPS 2010.

9.4.3. Interpretability (Metadata requirements)

1067. For OECD purposes it is strongly recommended that metadata be available in English and easily accessible over the internet. For international trade in services statistics, the OECD requires information on sources, national data provider and publisher, data collection systems, thresholds for data reporting (if any), national reference publications, international guidelines and manuals used, periodicity, breaks in the time-series and websites disseminating statistics.

9.4.4. Timeliness

1068. It is important that countries provide data or that data be available at the same time, or immediately after, they are released nationally. Ideally, yearly data should be available within 4-6 months after the reference period.

9.4.5. Data and metadata transmission

1069. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users, too.

1070. In the meantime, the OECD is flexible and endeavours to work with Costa Rica to find the most efficient and effective solution that will guarantee regular, ongoing transmission of data. For international trade in services statistics, it would be ideal if data were transmitted as soon as they are released, through the standard OECD EXCEL questionnaires.

9.5. Evaluation of International Trade in Services Statistics

9.5.1. Coverage

1071. In December 2016, the BCCR provided the OECD with a set of data on international trade in services statistics in US dollars for the period from 2000 to 2015 according to EBOPS 2010 categories but only for 'World' as the partner country. Work is underway in the BCCR to provide the current international trade in services data (by EBOPS 2010) with a full partner country breakdown. The BCCR committed to providing the OECD with information by partner country by end-2019. The BCCR has completed the standard country metadata template (in English) and this is disseminated with the data on OECDdotStat.

9.5.2. Compliance

1072. International trade in services statistics are compiled in accordance with the BPM6. Data is obtained from various sources, including administrative data and surveys:

- Coordinated quarterly and annual surveys of services, with coverage of different types of services which also incorporate requirements of national accounts and balance of payments.
- Coordinated Survey of Foreign Direct Investment and Balance of Payments (ECID-BdP) conducted quarterly and annually: the data from this survey is obtained not only by service exports but also imports of services from those companies whose core business is not services but pay services abroad on a regular basis.

1073. Furthermore, special surveys such as the annual survey of medical tourism are conducted to complement the information obtained and improve the measurement of services. Additionally, administrative data from the Trade Promotion Agency (PROCOMER), which provide the monthly income of services companies under the Free Trade Zone regime, and annual operational reports and financial statements are used.

1074. Other administrative records used include: databases from the MdH; Costa Rican Tourism Board; Superintentendencies of - Financial Intermediaries, Insurance, Securities and Pensions; and the Social Security Department. Information are also obtained from public companies like Costa Rica Postal Service (CORTEL), Costa Rican Electricity Institute (ICE), the Costa Rican Telecommunication Company (RACSA), National Insurance Institute (INS), as well as the execution of the General Budget of the Republic.

9.5.3. Interpretability

1075. The BCCR disseminates international trade in services statistics (only the core 12 services items though) within the balance of payments dataset. Available methodological information refers to metadata available for BOP statistics.

9.5.4. Timeliness

1076. International trade in services statistics are produced and released on a quarterly basis. Basic information is collected within six weeks after the end of the reference period then data is processed and released by the end of the third month after the end of the reference quarter. Timeliness of Costa Rican international trade in services statistics meets the requirements of the IMF Special Data Dissemination Standards (SDDS) and the OECD requirements.

9.5.5. Data and metadata transmission

1077. The international trade in services data transmitted to the OECD in December 2016 are compiled according to international recommendations (e.g. the *Manual on Statistics of International Trade in Services* 2010) and align with their balance of payments statistics. These international trade in services statistics meet a number of the OECD data requirements, e.g. series length, EBOPS 2010 coverage. The metadata transmission was received in full and is in line with what OECD member countries currently provide.

9.5.6. Overall assessment of international trade in services statistics

1078. At the time of writing this report, Costa Rica does not fully meet the OECD requirements for annual international trade in services statistics in terms of coverage, as data by partner country is only partially available. These statistics are important components of OECD international trade in services statistics programme and it is therefore highly desirable that the statistical authorities of Costa Rica take initiatives to fill this gap. It is welcome that the BCCR have confirmed that work is underway, and that exports in services by partner country for the period 2013-2016 will be transmitted to the OECD by end 2019. Given the commitments by the BCCR to address identified gaps and the evidence that has already been provided to confirm that work is underway, the reviewers expect that Costa Rica will meet the OECD requirements for international trade in services statistics in the near future.

Chapter 10. FINANCIAL STATISTICS

10.1. Background

1079. The present assessment is based on the data and metadata supplied by Costa Rica via the OECD questionnaires, documentation obtained through the first OECD fact finding mission (16-20 February 2015), the 2017 peer review mission and the findings of a SDD technical mission in July 2019, as well as the examination of the existing national and international sources for Costa Rican national accounts statistics.

1080. The BCCR is the official producer of the general government accounts and of financial statistics in Costa Rica and contributed actively to the review process. The MdH, in charge of government finance statistics and public debt statistics, has also contributed to the process.

10.2. General Government accounts

10.2.1. OECD data and metadata requirements for general government accounts

1081. The OECD Annual National Accounts (ANA) database contains data collected from all OECD Members and some other major economies on the basis of a standardised questionnaire as well as according to countries' own definitions and classifications.

10.2.1.1. Coverage

1082. The annual data requested cover the following domains:

- Table 0200: consolidated main aggregates of general government and its subsectors, current prices. The timeliness of the annual table 0200 is expected to be, at minimum, T + 6 months, even if these first data are provisional. The consistency of the data with the main headline data from the MdH has to be ensured, if necessary via a transparent bridge table.

- Table 0900: Detailed tax and social contribution receipts by type of tax or social contribution and by receiving sub-sector, current prices.

- Table 1100: Expenditure of general government (and sub-sectors) by function (in COFOG classification), current prices.

1083. The OECD gives priority to the national accounts sources as regards the monitoring of the fiscal policy. In particular, the national accounts concept of "general government" is central to the set of headline tables of the OECD Economics Department for the monitoring of government finance statistics. The concept of "public sector" (which includes non-financial and financial corporations controlled by governments units) is less a priority in OECD than the concept of general government.

1084. Time series are expected to cover the period from 1970 to the most recent year.

10.2.1.2. Compliance

1085. The definitions and compilation methods used should comply with the 2008 SNA, and the *IMF Government Finance Statistics Manual 2014* (GFSM 2014).

10.2.1.3. Interpretability (Metadata requirements)

1086. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet.

10.2.1.4. Timeliness

1087. The OECD expects the transmission of annual accounts for the general government under Table 0200 at T + 6 months.

10.2.1.5. Data and metadata transmission

1088. The OECD expects the transmission of annual government accounts on the same day of the national release.

10.2.2. Evaluation of Costa Rica's general government accounts

10.2.2.1. Source data: Government Finance Statistics

1089. In Costa Rica, the responsibility of the collection, processing and publication of fiscal indicators and fiscal statistics lies with the MdH by Law No. 8131 of 16 October 2001, and its decree of implementation 32988-H of 31 January 2006. Currently, the Technical Secretariat of the budget Authority (Secretaría Técnica de la Autoridad Presupuestaria - STAP) of the MdH compiles a monthly detailed account of revenues and expenditures of the Central Government, based on the IMF GFSM 1986.

1090. Monthly data are available since the year 2006, and annual data since 1987. Monthly data are published at the latest on the 20th of the month.[114] In addition, STAP publishes and transmits to the IMF a complete revenue/expenditure account for the entire public sector (153 entities), on an annual basis, published at the latest at 30 June of T + 1.

1091. In 2017, the MdH has started the work to prepare for GFSM 2014 at all levels of government which comprises over 200 institutions. At that time, the MdH estimated that the transition period would take up to 5 years. This is explained by the time required to implement Public Sector Accounting Standards (IPSAS) throughout all levels of government, including the need for staff training in the application of GFSM 2014. A committee had been put in place with the participation of the director of the national budget, the treasury and the BCCR to discuss technical matters regarding compilation, institutional coverage, sectorization, etc. Although the Committee was not reconvened, the cooperation between MdH, BCCR and INEC on the implementation of GFSM 2014 has been significantly reinforced over the last two years.

[114] STAP also compiles a monthly account of a sector called « Rest of the public sector reduced » (RSPNFR), comprising the Central Government, the Central Bank and 12 public entities (5 public enterprises, 7 decentralised institutions). While data are monthly, only annual data are published since 1983.

1092. A uniform chart of accounts for all public sector institutions was introduced in 2006, but it was not consistent with international standards. The MdH is in the process of enforcing the international accounting rules IPSAS (NICSP) for the whole Public Sector. However, STAP is already reporting the Central Government data in the GFSM 2001, using a provisional bridge table from the SIGAF-GFSM 1986 format to the GFSM 2001 compliant format.

1093. Fiscal statistics from the MdH are not reconciled with general government accounts compiled by the BCCR. Such an alignment is considered essential for the future, once BCCR starts to compile timely non-financial accounts for general government. With a move towards GFSM 2014, the alignment with the 2008 SNA will occur automatically as the two standards are consistent. Until such time, however, it is important that a bridge table be published regularly to explain the difference between the main balancing items of the data compiled in line with national practice and the 2008 SNA balancing items. During the review process, BCCR and STAP started to produce such a bridge table and an example is proposed in the Annex 10.A. to this chapter. As a more general point, differences between government data produced in accordance with national practices and data according to international standards should also be clearly presented to users, for example through bridge tables.

10.2.2.2. Coverage

1094. A complete Table 0200 (non-financial accounts) has been transmitted by Costa Rica, with time series from 2000 to 2018 (provisional). This table covers the entire annual non-financial accounts of general government and its sub-sectors. It ends with the main SNA headline indicator of government surplus/deficit (so-called "net lending/borrowing" and coded B9 in the SNA). This table is at the core of OECD indicators for fiscal monitoring. As such, its quality and the timeliness of its transmission are essential. The timeliness for the transmission of the first provisional accounts is T + 6 months. While this provisional account may incorporate estimations for some entities (such as local authorities) that may not have yet finalised their accounts in time, the coverage of all entities composing general government should be complete by the second transmission a few months later. This should not pose problems for Costa Rica as, already, the BCCR has access to 100% of the accounts of the entities of the general government. Due to the definition of 'total expenditures' in the OECD collection templates (using intermediate consumption), there is a mismatch between net lending/borrowing (B9) and the difference between total revenue and total expenditure for General government and Central government. To ensure consistency, and even if it is not required by the 2008 SNA, the BCCR would need to recalculate 'total expenditures' by adding the value of the central bank's non-market output to this total[115]. This correction would ensure that B9 equals the difference between total revenue and total expenditure in the table.

1095. While the OECD requests consolidated main aggregates of general government for all the periods, the BCCR transmitted non-consolidated data for S13 for the period 2000-2018 and the coverage of data on transactions D4, D7 and D9 is limited to the years 2000-2011 and 2017-2018.

1096. Costa Rica transmitted a complete *Table 900* (detailed taxes), with time series for the years from 2000 to 2016. However, its timeliness is far from the OECD requirements (T + 6 months),

[115] Indeed, as this central bank service is considered as a collective consumption expenditure, it has to be 'produced' by the government. To make this possible, the 'purchase' of the central bank output by the government should be recorded as intermediate consumption (P2) of the government, consequently adding to output (P1) of government (more specifically, P132 – non-market output, other) and collective consumption expenditure (P32) of government. All these adjustments should be made for both S13 (General government) and S1311 (Central Government).

and taxes are recorded on a cash basis, rather than an accrual basis as recommended by the 2008 SNA. Costa Rica is strongly encouraged to move to accrual recording for taxes.

1097. *Table 1100* has been transmitted by the BCCR and covers the detailed classification of general government expenditures, using the international Classification of Functions of Government (COFOG) at 2-digit level for the years from 2012 to 2017 (provisional). This table is one of the most frequently used by the OECD Public Governance and Territorial Development Directorate (GOV). Please note that the correction recommended for Table 0200 cannot be applied by the Secretariat to table 1100 as it is not possible to allocate this difference across COFOG categories. Therefore, a discrepancy appears between table 0200 and table 1100 for total government expenditure (TLY) and intermediate consumption (P2). The BCCR is strongly encouraged to provide the OECD with consistent information in tables 0200 and 1100.

1098. In Costa Rica, STAP compiles the breakdown of government expenditures for the entire Public Sector on the basis of three methods of consolidation: (1) institutional, (2) functional, and (3) sectoral. The process is based on the System of Consolidation of Accounts of the Public Sector (SICCNET). Annual data are available since 1997.

1099. These sets of data differ from Table 1100 in several aspects: (1) they are not accrual based; (2) the functional classification used is not according to COFOG; and (3) there is no published set of data for the whole general government according to the standard definition in the international standards for compiling national accounts. The major difference is the inclusion of public non-financial and financial corporations in the perimeter of consolidation. Public corporations are not part of general government according to the 2008 SNA.

1100. Similarly, for institutionally consolidated figures, non-financial and financial public corporations appear are included in the general government aggregate, thus contributing with their net surplus/deficit. This avoids inflating global expenditures/revenues with those of the relevant corporations but remains at variance with the 2008 SNA. It is to be noted here that the compilation of an SNA-consistent Table 1100 would require a substantial effort, in particular because of the necessary implementation of the standard COFOG classification.

10.2.2.3. Compliance

1101. In Costa Rica, as in many Latin American countries, the major fiscal policy indicators are compiled by the MdH based on the IMF Government Finance Statistics Manuals and Guides.[116] The main headline indicator for deficit/surplus is the figure published by the MdH for Central Government.

1102. In the OECD, public finance indicators are based on the SNA framework, with a focus on the SNA concept of *general government* (rather than Central Government or the more extended public sector). While GFSM 2014 is (almost) fully consistent with the 2008 SNA, GFSM 2001 (and by extension GFSM 2014) is not yet implemented in Costa Rica as expenditures of the General Government are based on the GFSM 1986. This is the consequence of a number of gaps in basic accounting in public institutions that have complicated the implementation of GFSM 2014. As a result, current fiscal indicators in Costa Rica are not compliant with the SNA and therefore not compliant with OECD requirements. At the time of writing, Costa Rica is working on the transition to GFSM 2014, with the technical support of CAPTAC-DR, which participates in the harmonization of statistics at the regional level.

[116] https://www.imf.org/external/pubs/ft/gfs/manual/gfs.htm

1103. Both the 2008 SNA and the GFSM require that all income and expenditure be recorded on an accrual basis, with a few exceptions for taxes on income.[117] In Costa Rica, expenditure data by the MdH are recorded on an accrual basis with the exception of interest payments that are recorded on a cash basis. The BCCR then uses information from financial statements on "interest receivable to the government" with regard to the holdings of securities, and performs an accounting adjustment for accrual. However, tax revenues are only registered on a cash basis. This is at variance with OECD requirements.

1104. For taxes on production, such as the sales tax, many countries estimate the relevant receipts on an accrual basis, by simply transposing actual tax receipts by some week/months to take into account the lag between the generation of the tax (sales by enterprises) and the payment to government. This may also constitute a feasible approach for Costa Rica. Indeed, the BCCR has already indicated its willingness to explore the issue with the MdH.

1105. The compilation of quarterly non-financial accounts for General government depends on the finalisation of the implementation of the International Public Sector Accounting Standards (IPSAS) by the MdH.

1106. In Costa Rica, MdH currently classifies entities by distinguishing between Central government, Local governments, *Instituciones Descentralizadas No Empresariales*, and *Órganos Desconcentrados. Órganos desconcentrados* are entities that are granted some administrative power to gain more efficiency but do not have full legal status or administrative autonomy. For example, the National Theatre is an *órgano desconcentrado* but depends directly on the Ministry of Culture. *Instituciones Descentralizadas* are entities with full legal status and a certain degree of autonomy. The Social Security System (CCSS) and the four state universities are part of this group of institutional entities.

1107. Costa Rican national accounts (base 2012) published by the BCCR in 2016 allocate the institutions in these groups to the relevant SNA institutional sectors. For example, the CCSS is classified as Social Security, and the four state universities are classified inside Central government. The distinction between market and non-market producers is based on the share of income derived from the production: if this share is less than 50% of the production costs (sum of value added and intermediate consumption), it is considered as non-market production. In order to determine whether the production is controlled by the Government, the criteria defined by the 2008 SNA (section 4.92) to those non-profit institutions controlled by the government are applied, i.e. the appointment of managers; other regularisations; contractual arrangements; degree of financing; and exposure to risk.

1108. It appears that a number of government establishments in Costa Rica operate as market producers that regularly generate positive operating surplus. These units keep being classified as part of general government which is at variance with SNA recommendations that indicate a treatment as quasi corporations separate from the government units that own them (2008 SNA 4.121).

1109. It is essential for the consistency of public finance statistics in Costa Rica that the detailed composition, entity by entity, of the general government is shared by all institutions intervening in fiscal statistics. This list may evolve in time with the creation of new public entities. By experience, the classification of some entities inside/outside general government (and inside/outside its sub-sectors) is difficult and may lead to differing views between institutions. To this end, INEC, together with the BCCR and the MdH, developed a new institutional catalogue for statistical purposes, called "Manual del Sector Institucional". This manual classifies

[117]The exception exists mainly for practical reasons; see 2008 SNA, para. 8.58 – 8.61.

institutions according to the SNA criteria and will be used by BCCR for updating institutions. At the time of writing, the manual is going to be published on the INEC website.

1110. A process of decision should be put in place, ensuring that the BCCR, as the official producer of Costa Rica's national accounts, or INEC, as coordinator of the NSS, has the final word in the classification of such entities. In 2017, the reviewers recommended to make public available the composition, entity by entity, of the general government, in order to facilitate the convergence of statistics, avoiding misclassifications. Since then, INEC, the BCCR and the MdH agreed on the composition of the general government and INEC published the Sectoral Classification Public Private for Statistical Purposes.

10.2.2.4. Timeliness

1111. Costa Rica partially complies with OECD requirements in terms of timeliness for general government accounts. During the review the timeliness of the Table 0200 transmitted to the Secretariat significantly improved. The Table 200 was first made available to the Secretariat at T + 9 months for preliminary data, which does not meet the OECD requirements in terms of timeliness (T + 6 months). At the time of writing, BCCR committed to provide preliminary general government accounts for the year 2018 by end of July 2019, which would represent a major step forward in that respect. The other accounts are available at T + 18 months and not published. MdH and BCCR cooperate to improve timeliness of other accounts by 2023.

10.2.2.5. Overall assessment of general government accounts

1112. In order to progress towards compliance with OECD requirements, a substantial effort is needed from Costa Rica to raise the quality of general government accounts in the framework of the SNA.

1113. The overall objective should be compiling and publishing good quality general government accounts in line with the 2008 SNA, at the latest by T+6 months. In a first instance, these accounts can be provisional, but should already exhibit a timeliness of figures for year T published in June of year T+1. Today these accounts are only available at T+18 months and unpublished (except the table 0200 which is made available to the Secretariat at T+7 months for preliminary data for the year 2018). The BCCR has indicated its plan to develop accounts for publication at T+8 months by automating the reception of base data. Since 2017, the MdH has made progress in fully implementing monthly reporting from all government institutions according to the International Public Sector Accounting Standards (IPSAS), in accordance with an action plan to achieve this by end 2022. In April 2019, the MdH presented a progress report on the implementation of IPSAS to the government council (97% of the total of assets have been implemented) and required support for its promotion, in particular to the institutions managers. The objective is to implement and adopt IPSAS in the Public Sector by end 2022, and IFRS in the Non-Financial Public Sector by 2020. With this information base, data would be transmitted to the BCCR at T+3 months, in time for treatment and ultimate publication of general government accounts at T+6 months.

1114. To ensure the correct scope of general government accounts, CSSP recommended in 2017 to establish a precise list with the composition of the general government, entity by entity. The list should be commonly agreed on by all institutions dealing with fiscal statistics, including INEC, BCCR and the MdH, and it is good practice that such as list is publicly available. Following the reviewers' recommendation, INEC coordinated the establishment of the list of entities of general government (Sectoral Classification Public Private for statistical purposes), and has published it on its website.

1115. As the headline figure for government deficits/surplus published by the MdH are not based on SNA concepts, a bridge table should be compiled and regularly published that explains in detail the differences between the headline indicator as published by the MdH and the SNA deficit/surplus figure (B9). Such complete bridge table was built in 2012 and the BCCR indicated progress in the development of similar tables for more recent tables.

1116. The efforts by the MdH to implement the IMF Government Finance Statistics Manual 2014 (GFSM 2014) standards in government accounting that have started in 2017 are very welcome. To structure and possibly accelerate the process, the reviewers then recommended to strengthen inter-institutional cooperation by reconvening and charging the Committee that was set up to oversee the transition to GFSM 2014 with developing an active timetable, and to ensure that INEC is represented in this Committee, as GFSM standards touch upon many basic statistical issues. Although the Committee was not reconvened, the cooperation between MdH, BCCR and INEC on the implementation of GFSM 2014 has been significantly reinforced over the last two years. At the time of writing this report, the MdH is working on the project of harmonisation of public finance statistics. As GFSM standards touch upon many basic statistical issues, INEC should be represented in this Committee. At the time of writing, MdH informed the OECD that a project of harmonization of Statistics of Public Finance was developed at the regional level under the auspices of CAPTAC-DR.

1117. The Functional Classifier of Public Sector Spending of the MdH is an adaptation of the international Classification of Functions of Government (COFOG), following the characteristics of the country, so it is not fully compatible with classifications used internationally. The BCCR and MdH should coordinate the implementation of the international COFOG classification in primary public finance accounting or build a detailed bridge table to the national functional classification, ensure a consolidation of expenditures at the general government level. The BCCR, jointly with the MdH, is committed to establishing the criteria to align the classifications.

1118. In 2017, the reviewers recommended the development of quarterly non-financial accounts for the general government in 2008 SNA format as a medium-term objective (i.e. for the next base year). As with the timeliness for the annual accounts, the improved base data by the MdH will be a pre-condition for the ability of the BCCR to compile quarterly accounts. At this point, the good cooperation between MdH and BCCR on the improvement of timeliness and implementation of IPSAS should enable the BCCR to release first quarterly general government accounts in 2023. The reviewers take note of the positive developments in the inter-institutional cooperation and recommend to implement the necessary institutional arrangements so that this collaboration continues.

10.3. Financial accounts and related statistics

10.3.1. OECD data and metadata requirements for annual and quarterly financial accounts and related statistics

10.3.1.1. Coverage

1119. The OECD collects information and maintains databases on four areas related to annual and quarterly financial statistics: (i) financial accounts and financial balance sheets; (ii) households' assets and liabilities; (iii) institutional investors' assets and liabilities; and, (iv) public sector debt. An overview of the contents of these four databases is provided below. The questionnaires and technical annexes, including detailed lists of data and breakdowns required by the OECD, and also guidelines, have been transmitted to the BCCR and the MdH. For all four databases, the Secretariat requests data in national currency units.

a) Financial Accounts and Financial Balance Sheets

1120. The OECD database on Financial Accounts is composed of two sets of data, the Financial Accounts and the Balance Sheets Accounts. Financial Accounts record, by type of instruments, the financial transactions between sectors. The Balance Sheets Accounts record the stocks of financial assets and liabilities held by the institutional sectors, and give a picture of their net worth, at the end of the accounting period.

1121. For both financial accounts (transactions) and financial balance sheets (stocks) the OECD requires data by institutional sector, some of which are divided into sub-sectors, for financial assets and liabilities grouped into seven categories of instruments, most of them split into sub-instruments. In addition, countries are asked to report balancing items for both net financial transactions and financial net worth. Countries should provide financial accounts and financial balance sheets on both a non-consolidated and a consolidated basis. Country should provide annual and quarterly tables.

1122. Countries should provide as long a historical series as possible; ideally, beginning in 1995 for yearly series and in Q1-1995 for quarterly series. In the OECD database, data are available from 1950 for some countries though for most countries the series begin in 1995.

b) Households' Assets and Liabilities

1123. The OECD database on Households' Assets and Liabilities is an extension of the financial balance sheet database. The Secretariat collects more detailed information to better identify and analyse households' wealth in OECD countries.

1124. The Secretariat requires quarterly series for the households and NPISHs sector and annual series for the households sector for specific assets and liabilities by category of instruments, including investment funds shares (and sub-instruments), life insurance and annuity entitlements (and further breakdowns), pension funds (and further breakdowns), and liabilities, including short- and long-term loans (and detailed sub-categories). Countries should provide as long a historical series as possible, ideally, for Households' Assets and Liabilities, beginning in 1995 for annual series and in Q1-1995 for quarterly series. The households' assets and liabilities questionnaire is aligned to the 2008 SNA and the European System of Accounts 2010 (2010 ESA) standards in terms of definitions and classification on instruments.

c) Institutional Investors' Assets and Liabilities

1125. The OECD database on Institutional Investors' Financial Assets and Liabilities aims to integrate annual and quarterly data in the framework of the 2008 SNA.[118] The dataset constitutes an attempt to better integrate these data in the framework of the System of National Accounts (SNA) and to meet the key recommendations 13-15 outlined in the report The Financial Crisis and Information Gaps, endorsed by the G-20 Finance Ministers and Central Bank Governors in November 2009, oriented to explore gaps and strengthening data collection, in particular, of non-bank financial institutions. While recommendations 13-14 focus on the cross-border exposure of non-bank financial institutions, recommendation 15 promotes the compilation and dissemination of sector balance sheets and flow of funds, stressing that data on non-bank financial institutions should be considered as a particular priority.

1126. The Secretariat requires quarterly time series for two main sectors, the 'investment funds' sector (S12L), the 'insurance corporations and pension funds' sector (S12Q), and their sub-

[118] http://www.oecd.org/statistics/data-collection/7II_OECD_Guidelines.pdf

sectors. Within these sectors, further breakdowns are required. The quarterly financial assets to be reported are currency and deposits, securities other than shares, (broken down according to initial maturity); loans, (broken down according to initial maturity); shares and other equities and other financial assets[119]. As well, total non-financial assets are requested.

1127. In addition to the sub-classification of the financial assets of the SNA, the OECD requires a further breakdown between assets issued by residents and assets issued by non-residents. The Secretariat requests non-consolidated data only. It is assumed that data for the fourth quarter of the year (Q4) correspond to the end-year data. In case of differences, explanations should be reported in metadata.

d) Public Sector Debt

1128. The OECD, the World Bank and IMF have developed a new quarterly database to disseminate data on government and broader public sector debt. The basic requirements are for consolidated, quarterly debt data for both general and central governments. Debt data for budgetary central government, non-financial public corporations, financial public corporations and the total public sector are also collected, when available.

1129. The debt instruments to be reported are all liabilities considered as debt, except liabilities in the form of equity and investment fund shares and financial derivatives and employee stock options. They comprise Special Drawing Rights; currency and deposits; debt securities; loans; insurance, pension, and standardized guarantee schemes; and other accounts payable. Data are to be broken down by instrument, maturity, residence of creditor, and currency denomination. Countries should report all available data, in their national currency, at nominal value, from Q1 1995 onwards.

10.3.1.2. Compliance

1130. In general, the definitions and compilation methods used should comply with the 2008 SNA.

a) Financial Accounts and Financial Balance Sheets

1131. Financial Accounts and Financial Balance Sheets are components of the System of National Accounts (SNA) and are integrated in the OECD annual national accounts database. This activity mainly focuses on the collection of comparable quantitative and qualitative information on financial transactions carried out and on financial stocks held by institutional sectors. In the OECD questionnaire, both the instrument breakdown and the institutional sector classification follow the 2008 SNA guidelines.

1132. In National Accounts, as a rule, the financial accounts are to be recorded on a non-consolidated basis. However, consolidation, which consists in eliminating the transactions of assets and liabilities between sub-sectors of the same sector and between institutional units of the same sub-sector, can be useful for of analysis in certain cases, especially for financial corporations and general government. The OECD requires both consolidated and non-consolidated data for both Financial Accounts and Financial Balance Sheets.

[119]Instrument classified according to the 1993 System of National Accounts.

b) Households' Assets and Liabilities

1133. The document Guidelines for the OECD questionnaire on Households' Financial Assets and Liabilities provides the methodological guidelines and definitions for reporting this data. These guidelines have been transmitted to the BCCR. The finer breakdown of households' financial assets required by the OECD is consistent with the financial classification of the 2008 SNA.

c) Institutional Investors' Assets

1134. The questionnaire on Institutional Investor's financial assets and liabilities was revised in 2015 to further align it to the 2008 SNA and 2010 ESA standards in terms of definitions and classification of instruments. Consistency between quarterly institutional investor's financial assets and liabilities and quarterly financial Balance Sheets should be ensured for the five sectors that are common to the two datasets, namely sectors S123 (Money Market Funds), S124 (Non-Money Market Funds), S12Q (Insurance Corporations and Pension Funds), S128 (Insurance Corporations), and S129 (Pension Funds). Any specific inconsistency should be reported in the metadata.

d) Public Sector Debt

1135. Countries should comply with the guidelines in "Public Sector Debt Statistics: Guide for Compilers and Users", issued by the Inter-Agency Task Force on Finance Statistics. This guideline has been transmitted to the MdH. The classifications and definitions are in line with those of other international manuals including the 2008 System of National Accounts (2008 SNA) and the Government Finance Statistics Manual 2014. However, the valuation, here, differs from SNA valuation rules in that public sector debt is measured at nominal value (and not at market value as in core national accounts). SDD has also prepared instructions for countries that are reporting data to the Public Sector Debt database. These instructions are available from SDD and were provided to MdH along with the data template.

10.3.1.3. Interpretability (Metadata requirements)

1136. For OECD purposes, complete and clear metadata must be available and transmitted to SDD in one of the official languages of the organisation, English or French. However, to ensure transparency of data and help users for cross-country comparisons, it is strongly recommended that metadata be available in English and easily accessible over the internet (on the national websites).

1137. For financial statistics, the OECD requires information on sources and methods regarding the compilation of questionnaires, valuation methods and any deviation of national definitions and concepts from the 2008 SNA framework. For Households' Assets and Liabilities and Institutional Investors' Assets and Liabilities, the Secretariat asks countries to complete specific methodological surveys the first time that they provide data. These methodological surveys have been transmitted to BCCR.

10.3.1.4. Timeliness

1138. It is important that countries provide data or that data be available at the same time, or immediately after, they are released nationally. Ideally, annual data should be available within 6-9 months and quarterly data within 4 months, after the reference period.

10.3.1.5. Data and metadata transmission

1139. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users, too.

1140. In the meantime, the OECD is flexible and endeavours to work with each country to find the most efficient and effective solution that will guarantee regular, ongoing transmission of data. For Financial statistics, it is ideal if data are transmitted as soon as they are released, through the standard OECD EXCEL questionnaires and/or XML files.

10.3.2. Evaluation of Costa Rica's financial accounts and related statistics

10.3.2.1. Financial accounts, financial balance sheets, institutional investors, detailed households financial balance sheets

1141. The BCCR is responsible for the compilation and dissemination of financial accounts in flows and stocks (financial balance sheets).The main source of information for the financial account comes from supervised financial companies. In January 2016, the BCCR published a first financial account for the year 2012. The annual sequence of non-consolidated accounts is now available.

1142. The following tables were transmitted to the OECD in the required format:

- Table 620 (Financial accounts by sector (transactions), non-consolidated): 2012-2016, based on the transaction matrices of national accounts.
- Table 610 (Financial accounts by sector (transactions), consolidated): 2012-2016, based on the transaction matrices of national accounts.
- Table 7II (Institutional Investor's assets and liabilities): 2011-2016. While an additional year (2016) was provided in March 2019, no new additional sectors or instruments have been provided. Moreover, there is no metadata regarding table 7II in which to advise of the quality of the data and the BCCR committed to review available information in the superintendencies and to provide the methodological information required by the Secretariat by June 2020.

1143. The BCCR has provided the following indications for planned data transmissions to the OECD:

- Table 710 (Balance sheets for financial assets and liabilities (stocks), consolidated): not presently part of the national statistical development plan but may be considered as part of the next benchmark revision to the national accounts.
- Table 720 (Balance sheets for financial assets and liabilities (stocks), non-consolidated): not presently part of the national statistical development plan but may be considered as part of the next benchmark revision to the national accounts.
- Table 7HH (Households' financial assets and liabilities): not presently part of the national statistical development plan but may be considered as part of the next benchmark revision to the national accounts.

1144. Presently, no quarterly financial accounts are produced in Costa Rica. During the review process, the BCCR indicated that it will develop a plan for the development of consolidated quarterly financial accounts by end 2020.

10.3.2.2. Public Sector Debt statistics

1145. In accordance with Article 79 of Law No. 8131, the MdH, through its Dirección de Crédito Público (DCP), is legally responsible for the compilation and dissemination of Public Sector Debt statistics. Debt statistics are compiled for Total Public Sector, Central government, General government, the Non-Financial Public Sector, and Central Bank of Costa Rica. However, gross debt is requested for the financial public corporations sector and not only for the central bank sector in the Public Sector Debt questionnaire. As DCP has information about the public banks sector, it could be reported as part of public debt under the public financial corporations sector. At the time of writing, DCP committed to complete debt information with others public financial Corp by 2020.

a) Coverage

1146. Annual figures on Total Public Debt (General Government, Rest of the Public Sector and Central Bank) are available starting in 1984. Quarterly data are available from Q3 2009 for the total public sector, General and central government sectors as well as for both financial and non-financial public corporations sectors in Costa Rican Colons and USD. Monthly data are available from 2004 for the Non-Financial Public sector. Debt for General government and Central government is not consolidated, but a program for consolidating general government debt has been initiated (Annual Operational Plan June 2017) and is planned to be finalised by the first semester 2021.

1147. In the course of 2016, Quarterly Public Sector Debt data from Q3 2009 was first transmitted to the OECD for all sectors requested in the questionnaire, both in national currency and USD. Data transmission has continued smoothly since.

1148. The length of time series is somewhat limited as it appears that it is not possible to cover years prior to 2009. Also, the data reported by the MdH is not consolidated, is reported at face value and only covers debt securities (AF33), loans (AF4), as well as a breakdown by currency denomination (domestic/foreign).

1149. The MdH is not in a position to report data for debt instruments such as other accounts payable (AF7) as this is generated within the national accounts. Concerning insurance, pension and standardised guarantee schemes (AF6), broken down by the creditor's residence, MdH is currently working with the BCCR to obtain the information on the residence of creditors.[120] For debt securities, a breakdown by residual maturity is available. The memorandum item - debt securities at market value has not yet been provided. In addition, for financial and non-financial public corporations sectors, data on short-term debt by original maturity and by instrument is not reported.

120

https://view.officeapps.live.com/op/view.aspx?src=https://www.hacienda.go.cr/docs/5cab5e8be5011_Historico%20Tenencia%20de%20la%20deuda%20del%20Gobierno%20Central%20para%20publicar%20Diciembre18.xlsx

b) Compliance

1150. Debt is valued at face value while the OECD requires data at nominal value. During the review process, the MdH developed central government debt securities at market value, based on information remitted by BCCR. [121]

1151. The MdH's current compilation of Public Sector Debt statistics follows the SNA 1993 methodology. However, for government finance statistics, the MdH compiles data according to the GFSM 1986 (see above). Debt data reported by the MdH under Public Sector Debt Statistics and general government accounts may thus differ. Until consistency is reached by moving to GFSM 2014, such differences should be clearly indicated through appropriate metadata. At the time of writing this report, the MdH is working in cooperation with CAPTAC-DR to implement the GFSM 2014 in coordination with BCCR and INEC.

1152. For the purpose of reporting on General Government debt, liabilities of the Central Bank should be excluded. Liabilities of the Central Bank should be included in the Public Financial Corporations sector and therefore in total Public Sector Debt. In Costa Rica, liabilities of the Central Bank are excluded from the General Government debt.

c) Timeliness

1153. Public sector debt statistics are made available at the latest on the 20th of the month following the reference period.

d) Data and metadata transmission

1154. In terms of timeliness, PSD data can be transmitted to OECD at the same time they are nationally published. The MdH does not publish specific metadata accessible online. The Central bank provides the Directorate of Public Credit of the MdH a metadata template, which only refers to IMF Special Data Dissemination Standard.

1155. Data for the Public Sector Debt statistics collection are available online on the website of the MdH.[122]:

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121 https://view.officeapps.live.com/op/view.aspx?src=https://www.hacienda.go.cr/docs/5cb63f334fe98_03-19%20Resumen%20Valoracion%20a%20Precios%20de%20Mercado.xlsx

122 Data are accessible from the following pages of the MdH website:

- Annual: https://view.officeapps.live.com/op/view.aspx?src=http://www.hacienda.go.cr/docs/57c0a1d45eb4c_Deuda%20Sin%20Consolidar%20SPNF-HISTORICO%20ANUAL%202015%20Actual%20Dici%20Final-15%20PIB%202000.xlsx
- Monthly: https://view.officeapps.live.com/op/view.aspx?src=http://www.hacienda.go.cr/docs/57c05cb686283_Deuda%20Sin%20ConsolidarHISTORICO%20Mens%20Julio-2016.xlsx
- General government: https://view.officeapps.live.com/op/view.aspx?src=http://www.hacienda.go.cr/docs/57c05cb686283_Deuda%20Sin%20ConsolidarHISTORICO%20Mens%20Julio-2016.xlsx
- Central government: https://view.officeapps.live.com/op/view.aspx?src=http://www.hacienda.go.cr/docs/5894ff9bd0a34_Tenencia%20de%20la%20deuda%20bonificada%20Gobierno%20Central%20Pag-Dic16.xlsx
- Maturity profile of debt: https://view.officeapps.live.com/op/view.aspx?src=http://www.hacienda.go.cr/docs/58b47c92d31fa_ENERO-2017%20Default Profile.xlsx

10.3.2.3. Overall assessment of financial accounts and related statistics

1156. With regard to financial accounts, a number of key annual series on financial transactions by sector are available from 2012 to 2016 along with information on institutional investors. These have been transmitted to the OECD, although the procedures for an efficient regular data transmission still need to be implemented. At the same time, several gaps remain. In particular, there are no quarterly accounts, no balance sheets, and no data on household assets and liabilities. Data on Institutional Investors have been provided for the annual frequency only (OECD collects quarterly data) and cover a limited period of time (2011-2016). Furthermore, no response to the methodological survey on Institutional Investors has been provided. The BCCR has scheduled the development of consolidated sectoral data for end 2020. The BCCR considers filling in the other gaps, notably the financial balance sheets, as part of the next benchmark revision to the national accounts, planned to be released in 2020.

1157. Concerning public sector debt statistics, these are largely available and broadly compliant with OECD requirements in terms of sector coverage. However, some improvements are needed concerning the coverage of certain debt instruments. Also, the fact that government finance statistics are not yet compliant with the 2008 SNA affects the conformity of public sector debt statistics with current international standards (as is the case with government accounts – see above). There are also additional issues related to the valuation of debt, the recording of interest on an accrual basis, and the need to exclude the Central Bank when reporting on General Government debt.

10.4. Short-term Financial Statistics

1158. This section presents the review of short-term financial statistics as part of the accession process of Costa Rican to the OECD. OECD data requirements for short-term financial statistics are for (i) monetary aggregates; (ii) interest rates and (iii) share prices.

1159. The assessment process consisted of the examination of the existing national and international sources for Costa Rica short-term financial statistics (including the IMF's SDDS metadata, which is provided directly by the BCCR) and the collection of data and metadata supplied by Costa Rica via OECD questionnaires. The information gathered provided the main inputs source for the assessment. The BCCR is the only institution that compiles financial and monetary statistics in Costa Rica, and it has actively contributed to the review process.

10.4.1. OECD data and metadata requirements for short-term financial statistics

1160. The OECD requires monthly short-term financial statistics for the following series:

- Interest rates
  - Overnight interest rate
  - Short-term rate (3 month interbank offer rate)
  - Long-term rate (10 year government bonds)
- Share Price Index
- Monetary aggregates[123]

[123]Data on intermediate money (M2) is desirable but not required.

- Narrow money (M1)
- Broad money (M3)

1161. The OECD requires seasonally adjusted monetary aggregates' series. The preference is that the seasonal adjustment is undertaken by the national statistics experts who have better knowledge of local seasonal factors than do international statisticians. If a country does not supply seasonally adjusted data, the OECD will publish non- seasonally adjusted series as provided by source.

10.4.1.1. Coverage

1162. Countries should provide a historical series as long as possible; ideally, starting in 1980 or earlier. All data should be available monthly. The OECD prefers to receive data in national currency units. The OECD presents the data either as an index (with 2010 as the base year) or as a rate, depending on which type of measure is the most appropriate or useful in the context of economic analysis. The OECD calculates annual and quarterly data on the basis of monthly figures.

10.4.1.2. Compliance

1163. The OECD is seeking data that comply with the standard definitions and compilation methods, as described below:

- Overnight interest rate: A call-money Central Bank rate. Call money and day-to-day loans play a predominant role in interbank money dealings and between banks and money market dealers.
- Short-term rate: The 3-month interbank offer rate is the target concept. A money market instrument.
- Long-term rate (10-year government bonds): These rates are principally yields on the secondary market of government securities. Generally the yield is calculated at the pre-tax level and before deductions for brokerage costs and commissions and is derived from the relationship between the present market value of the bond taking into account also interest payments accrued.
- Share Price Index: all-share or broad indices. They are price indices and not return indices, i.e. they exclude dividend payments. Where possible, the monthly indices are calculated as averages of daily closing quotations.
- Monetary aggregates, narrow money (M1): The target definition for narrow money covers all coins and banknotes as well as personal money in current accounts that may be used as means of payment, i.e. overnight deposits. Data should be provided as monthly figures expressed in current prices ("nominal" terms), measured as end-of-period stocks.
- Monetary aggregates, broad money (M3): comprises M2[124] and marketable instruments issued by the monetary financial institutions (MFI) sector. Certain money market instruments, in particular money market fund (MMF) shares/units and repurchase agreements are included in this aggregate. A high degree of liquidity and price certainty make these instruments close substitutes for deposits. As a result

[124]Intermediate Money (M2): comprises narrow money (M1), deposits with a maturity of up to two years and deposits redeemable at a period of notice of up to three months.

of their inclusion, M3 is less affected by substitution between various liquid asset categories than narrower definitions of money, and is therefore more stable. Data should be provided as monthly figures expressed in current prices ("nominal" terms), measured as end-of-period stocks.

10.4.1.3. Interpretability (Metadata requirements)

1164. For OECD purposes, complete and clear metadata must be available in one of the official languages of the organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet. The Secretariat requires metadata describing the source and definitions.

10.4.1.4. Timeliness

1165. It is important that countries provide data or that data be available at the same time or immediately after they are released nationally. Ideally, monthly data should be available within one to two months after the reference period.

10.4.1.5. Data and metadata transmission

1166. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users, too.

10.4.2. Evaluation of the short-term financial statistics for Costa Rica

10.4.2.1. Coverage

a) Interest rates

1167. The BCCR provided three interest rates which they considered closest to OECD requirements, these are: IBMM-ILM Rate (from January 1998); Deposit interest rate at 3- months (from January 1997); and Government rate at 10 years, secondary market (from August 2011).

b) Share Price Index

1168. The BCCR provided a time series for the National Stock Exchange (NSE or BNV in Spanish - Bolsa Nacional de Valores) starting in January 1995 (with this month forming the reference period i.e. January 1995=100).

c) Monetary aggregates

1169. The BCCR initially provided raw and seasonally adjusted time series for M1 and M3, starting in January 2001. During the review process, the BCCR extended the time series to finally, in June 2019, provide the Secretariat with time series starting in January 1987.

10.4.2.2. Compliance

a) Interest rates

IBMM-ILM Rate; Weighted average interest rate in the money market

1170. According to the BCCR, the closest rate to an overnight interbank rate is the "IBMM-ILM Rate", which is, in fact, the IBMM (interbank money market) rate from January 1998 to July 2009 and then the ILM (integrated liquidity market) rate from August 2009. Both rates reference the money market rate for overnight deposits.

1171. The IBMM measures funds electronically traded between the BCCR and commercial banks. The rate was based on operations, with a 1-day term, of commercial banks and the BCCR. The IBMM rate was set on a daily basis. The monthly rate was set taking into account the interest rate of each of the operations carried out on each day of the month, weighted according to the volume traded.

1172. The ILM was created by the BCCR in August 2009, and is the means by which the BCCR and authorised entities negotiate long-settlement liquidity transactions with each other, in both national and foreign currencies, secured and unsecured, in conformity with provisions set forth in the Payment System Rules and Regulations and the guidelines determined by the Board of Directors of the BCCR for the Costa Rica money market. This market has two access channels:

- ILM-SINPE[125] service: aimed at and used by entities authorised to administer their short-term liquidity positions (from 1 to 90 days).
- ILM-Central Division service: aimed at financial entities which are required to maintain their liquidity reserve in the BCCR. Those entities participating in this service may create "Standing deposit facilities".

1173. Starting in August 2009, the interest rate included 1-day term operations of authorised entities, which include the BCCR and financial entities supervised and regulated by the General Superintendency of Financial Entities (SUGEF), the General Superintendency of Securities (SUGEVAL), the Superintendency of Pensions (SUPEN) and the General Superintendency of Insurance (SUGESE).

1174. The interest rate of the ILM is set on a daily basis. The monthly rate is obtained taking into account the interest rate of each one of the operations carried out in each day of the month, weighted according to the volume traded, including BCCR auction operations. It does not take into account transactions by financial entities that are required to maintain a liquidity reserve.

1175. The overnight rate will be the IBMM rate up to July 2009 followed by the ILM rate from August 2009 onwards without any break in between the two explained in available metadata. While the overnight rate released by the OECD is the one dealing with national currency for most of the Members, the US dollar rates will be used from now on following Costa Rica suggestions.

Deposit interest rate at 3 months

1176. According to the BCCR, the closest rate to a 3 month interbank offer rate is the "Deposit interest rates at 3 months" which corresponds to the weighted average of interest rates provided by state and private banks to the BCCR every Wednesday. These are market interest rates through which intermediaries receive funds from the public (not only interbank funds) and are weighted by the balances of deposits of every intermediary, included are certificates of deposit in both local and foreign currency. An income tax of 8% is deducted from the returns, making it a net interest

[125]The Spanish acronym for the *National System of Electronic Payments*.

rate. These rates are published by a group of financial intermediaries on a weekly basis, and the figure in effect on the last day of each month is used to obtain the monthly series. However, the calculation methodology for interest rates has changed and the BCCR now collects every week information from every loan transaction. The interest rate is weighted by the amount of the loans, therefore is more volatile than "retail" rates produced by the old methodology. Time series produced in accordance with the new methodology start in January 2016 but the BCCR provided the Secretariat with a longer time series by linking data with a time series based on the previous methodology.

Government rate at 10 years, secondary market

1177. The rate refers to 10 year securities issued by the Central Government as traded in the secondary market. Daily rates are observed for the security maturing in 10 years, giving an average negotiated rate. These rates are sourced from the National Stock Exchange's Business Objects Information System (SIBO, its Spanish acronym). A monthly rate can only be calculated if there was a negotiation on some day during the month, and given the limited scale of the operation in Costa Rica this leads to the series having months with no data.

b) Share Price Index

1178. The share index includes all shares traded in the market. The variation in the price of shares is weighted according to the relative importance of the different shares that participate in the market, in terms of trading frequency and percentages in circulation traded. The National Stock Exchange state that the index is intended to measure the approximate increase in wealth of an economic agent that maintains a portfolio consisting of the most traded shares in the market, in terms of trading frequency and of the amount of shares traded vis-a-vis the total amount of shares in circulation.

1179. The index assigns a greater relative importance to negotiations of shares of those companies with a broader presence in the market. These variables are measured on a daily basis, and the figures in effect on the last day of every month are used to obtain the monthly series.

1180. The BCCR has voiced a concern that due to the lack of significantly high market capitalisation in Costa Rica (and a lack of share market listings), the Costa Rica share price index may not be comparable to other OECD countries. The BCCR's concerns were based on the index in effect being calculated for just 10 firms engaging in trading on the local stock market.

c) Monetary aggregates

1181. Coverage includes the BCCR and Other Depository Corporations (ODCs), including commercial banks, savings and credit cooperatives, financial entities and mutual savings and credit institutions. M1 includes banknotes and coins and transferable deposits (current accounts, certified checks, cashier's checks, on-demand deposits and matured term deposits) in both national and foreign currencies. M3 includes M1 and other deposits (electronic term deposits and other requirements) and securities other than shares (monetary stabilisation bonds and term certificates of deposit) issued by the BCCR and ODCs with the corresponding interests payable in both national and foreign currency. Securities issued by ODCs include those instruments with a maturity term of less than 360 days, the definition of short-term operations.

1182. Monetary aggregates are established according to the IMF Monetary and Financial Statistics Manual and Compilation Guide. During the review process, the BCCR cooperated with the IMF for the review of the compilation methodology to include Money Market Funds (MMF) in the Depository Corporations (ODC) survey, and started compiling an Other Financial Corporations (OFCs) survey covering Non Money Market Funds (NMMF), pension and

insurance. Time series of MMF starts in January 2008 for MMF, in January 2005 for pensions, and in January 2010 for insurance.

10.4.2.3. Interpretability (Metadata requirements)

1183. Methodological information in English is available on the IMF SDDS website for interest rates[126], monetary aggregates[127] and share price index[128]. This metadata is however not particularly informative of the methodology being used to compile or collect the statistics in question or what the coverage contains. It tends to focus more on the role of the BCCR in the financial system and the structure and resources in the BCCR for compiling and disseminating these statistics.

1184. Very limited methodological information is available in the English version of the BCCR's website for these financial statistics.

10.4.2.4. Timeliness

a) Interest rates

- The US dollar rates will be used.
- IBMM-ILM – 1 calendar day after the reference period.
- Deposit interest rate at 3 months – 7 calendar days after the reference period.
- Government rate at 10 years – 1 calendar day after the reference period.

b) Share Price Index

- The NSE provides the data one calendar day after the reference period.

c) Monetary Aggregates

- M1 and M3 are available 45 calendar days after end of the reference period.

10.4.2.5. Data and metadata transmission

1185. The BCCR sends an Excel file the first week of every month with the last updates for interest rates and monetary aggregates. BCCR provides regular data on a timely basis via Excel. Considering the lack of data available (e.g. interest data only appear daily) on the BCCR website and the difficulty in navigating the BCCR website this appears a good option for the meantime.

10.4.2.6. Overall assessment of short-term financial statistics

1186. OECD data requirements for short-term financial statistics are for (i) monetary aggregates; (ii) interest rates; and (iii) share price index.

1187. Costa Rican monetary aggregates produced and disseminated by the BCCR are comparable with data from OECD Members, both in coverage and methodology. Progress made during the review, in particular in terms of coverage, further improved their international

[126] http://dsbb.imf.org/pages/sdds/DQAFBaseCollapsed.aspx?ctycode=CRI&catcode=INR00

[127] http://www.dsbb.imf.org/Pages/SDDS/BaseSMReport.aspx?ctycode=CRI&catcode=AAB00&ctyType=SDDS

[128] http://dsbb.imf.org/pages/sdds/DQAFBase.aspx?ctycode=CRI&catcode=SPI00

comparability. In particular, the reviewers very much welcome the extension of time series back to 1987, through the implementation of a process to automate monetary statistics, according to the guidelines of the Manual of Monetary and Financial Statistics.

1188. Progress were also achieved in the revision by the BCCR of the compilation methodology to include Money Market Funds (MMF) in the Depository Corporations (ODC) and the development of an Other Financial Corporations (OFCs) survey covering Non Money Market Funds (NMMF), pension and insurance. These progresses have enabled the BCCR to release time series starting in January 2008 for MMF, in January 2005 for pensions, and in January 2010 for insurance.

1189. While the BCCR can supply the OECD with the required share price index, given the comments received from the BCCR about the share price not representing the reality of the market, the OECD will not publish this data. This is not a statistical issue but relates to the size of Costa Rican economy and the fact that the stock market is weakly developed.

1190. The BCCR provided three interest rates that they considered closest to OECD requirements.

Annex 10.A. Bridge table between MDH and S13-B9 for general government

The objective of the bridge table is to allow economists to understand the difference between the headline indicator of surplus/deficit (*superavit/deficit*) published by the MdH and the headline indicator of surplus/deficit published by the BCCR in SNA (code: "S13-B9"). The bridge table (see below) starts therefore by the first and provides a bridge to the second.

The table should only present lines that are useful to understand the difference between the two measures of surplus/deficit:

1. Lines corresponding to the exclusion from expenditures/receipts of the MdH that are purely financial (issuing debt, acquisition or sale of equity, reimbursing debt, holding gains/losses, etc…).

2. Lines corresponding to differences between cash (MdH) and accrual accounting (SNA).

3. Other adjustments.

The details should be limited to the *Gobierno Central* and the *CCSS*. The other institutional sectors are too small to necessitate a detailed explanation of the differences.[129]

Table 9. Proposed bridge table

		2012	2013	2014
1	Central Gvt MdH Surplus/Deficit	1.001.190,81	1.334.983,66	1.526.997,93
2	Financial transactions excluded (4-3)	27.050,53	78.259,77	53.888,21
3	From receipts, of which:	6.590,51	8.163,04	7.440,00
	-			
	-			
	Others	6.590,51	8.163,04	7.440,00
4	From expenditures, of which:	33.641,03	86.422,82	61.328,20
	Gross fixed capital formation	30.448,95	54.655,92	59.309,90
	-			
	Others	3.192,08	31.766,90	2.018,30
5	Accrual adjustments (6-7)	201.032,19	98.067,48	376.370,51
6	On receipts, of which	263.577,00	216.271,28	469.745,92
	Taxes	13.024,89	21.104,26	28.926,79
	Interest	162.327,47	115.307,92	381.949,95
	Transfers	86.926,54	76.098,03	16.071,59
	Others	1.298,11	3.761,07	42.797,59
7	On expenditures, of which	62.544,81	118.203,80	93.375,41
	Interest	4.928,74	2.093,24	1.022,26
	Transfers	15.262,65	105.297,13	88.531,22
	Others	42.353,42	10.813,44	3.821,93
8	Other adjustments	-126.906,74	-91.029,69	-95.174,17

[129]Maybe an exception could be made for « Otros Fondos de SS de afiliacion obligatoria » which seem to have substantial surpluses.

9	Central Gvt SNA Net Lending/Borrowing (1+2+5+8)	-900.014,83	1.249.686,11	1.191.913,38
10	CCSS STAP Surplus/Deficit 1/	172.815,70	186.284,20	221.266,90
11	Accrual adjustments (12-13+14)	6.705,39		
12	On receipts, of which	377.600,83		
	On social contributions received	143.146,88		
	On current transfers received	14.605,84		
	On other receipts	219.848,10		
13	On expenditures, of which	351.228,52		
	On social contributions paid	68.279,46		
	On current transfers paid	107.479,64		
	On other expenditures	175.469,41		
14	Other adjustments	-19.666,92		
15	CCSS SNA Net Lending/Borrowing (10+11)	179.521,09	239.381,39	469.213,98
16	Other SS Funds SNA Surplus/Deficit	192.150,44	200.589,83	203.492,19
17	ISFLSG Central Gvt SNA Surp/Deficit	110.265,84	136.908,32	120.569,34
18	Local Gvts SNA Surplus/Deficit	5.156,78	6.991,83	2.286,16
19	ISFLSG Local Gvt SNA Surplus/Deficit	1.698,06	149,19	1.462,45
20	General Gvt SNA Surplus/DeficitS13-B9 (9+15+16+17+18+19)	-411.222,62	-665.665,55	-394.889,26

Source: BCCR and MdH.

Chapter 11. LABOUR AND LABOUR COMPENSATION STATISTICS

11.1. Background

1191. This chapter presents the review of labour statistics for Costa Rica, conducted by the OECD Secretariat in the OECD Statistics and Data Directorate (SDD) as part of the accession process of Costa Rica to the OECD.[130]

1192. The OECD routinely collects quarterly and annual labour statistics to monitor changes in countries' labour market conditions, to compare key features of the labour market in a country to those prevailing elsewhere, and to support policy analysis. In particular, labour statistics provide a record of both unemployed and employed individuals computed as percentages of the labour force. They are generally sourced from household labour force surveys (LFS) conducted on a monthly or quarterly basis. It is widely accepted that household labour force surveys are among the best sources for key labour market statistics. However, many countries prefer to use establishment surveys, used to compile national accounts. In some countries, such as Costa Rica, particular attention is given to the "informal employment", which is subject to specific policy recommendations.

1193. The OECD collects both infra-annual (monthly and/or quarterly) and annual labour force statistics (generally obtained by averaging the corresponding quarterly or monthly values). In Costa Rica, data for labour statistics are compiled and disseminated by INEC. The assessment process of labour statistics is based on information and documentation obtained during the OECD technical missions and peer review mission, the examination of the existing national and international sources for Costa Rican social statistics, and the data and metadata supplied by Costa Rica via the OECD questionnaires. INEC contributed actively to the review process.

11.2. OECD data and metadata requirements for labour and labour compensation statistics

11.2.1. Coverage

11.2.1.1. Infra-annual labour statistics

1194. The OECD requirements for infra-annual labour statistics comprise monthly labour force survey (LFS) data, harmonised unemployment levels and rates, as well as rates, stocks and flows of job vacancies. Specifically, the Secretariat requires the following monthly (preferably) or quarterly series:

- Labour force survey data:
  - Population by sex (total, men and women);

[130]The OECD interrupted the collection of "Population and vital statistics" for a short period due to resource constraints. These data are based on population census, inter-censal population estimates and population registers. The OECD Directorate for Employment, Labour and Social Affairs (ELS) has taken over the collection of historical data and projections for the medium variant of national population statistics. These data are reference series for the computation of many indicators for health, population ageing, output and productivity levels, and social expenditures among others. A short description of these statistics for Costa Rica has been incorporated in Chapter 2.

- Working age population, defined as the sum of active and inactive people, by sex (total, men and women) and age groups (for the basic age groups 15-64 and 15-74, as well as by more detailed age groups 15+, 15-24, 25-54, 55-64);
- Active labour force, defined as the sum of employed and unemployed people; and the labour force participation rate, defined as the ratio of the active population to the working age population, by sex (total, men and women) and age groups (for the basic age groups 15-64 and 15-74, as well as by more detailed age groups 15+, 15-24, 25-54, 55-64);
- Employment by main industry: Agriculture, Manufacturing, Industry, Construction and Services (for people aged 15+);
- Employment by working time arrangement: Full time and Part time by sex (total, men and women, for age group 15+);
- Employees (for people aged 15+);
- Unemployment and employment levels and rates by sex (total, men and women) and age groups (for the basic age groups, 15-64 and 15-74, as well as by more detailed age groups 15+, 15-24, 25-54, 55-64);
- Unemployment by duration: Short-term (less than 1 year), Long-term (1 year and over) by sex (total, men and women, for age group 15+); and
- Inactive working-age population, and inactivity rates defined as the ratio of inactive population to the working age population, by sex (total, men and women) and age groups (for the basic age groups 15-64 and 15-74, as well as by more detailed age groups 15+, 15-24, 25-54, 55-64).

- Stocks and flows of job vacancies.

1195. In particular, monthly data on employment and unemployment levels and rates for the country as a whole, by sex (total, men and women), for the age groups 15+ and 15-24 are required for the OECD monthly Harmonised Unemployment Rate (HUR) news release published by the Secretariat

1196. Countries should provide as long a historical series as possible; beginning, at the latest, in 2000 (and in 1990 for the series required for the HUR News Release). Longer historical series are desirable where possible.

11.2.1.2 Infra-annual labour compensation statistics

1197. In terms of labour compensation statistics, the Secretariat requires monthly data on earnings for the following categories: total economy, private sector, manufacturing and market services. Earnings are defined as “remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done, together with remuneration for time not worked, such as for annual vacation, other paid leave or holidays. Earnings exclude employers’ contribution in respect of their employees paid to social security and pension schemes, and also the benefits received by employees under these schemes. Earnings also exclude severance and termination pay" (ILO 1973, para 8). Earnings include wage rates (composed of basic wages, cost-of-living allowances, and other guaranteed and regularly paid allowances, according to the ICLS terminology), overtime payments, bonuses and gratuities regularly and irregularly paid, remuneration for time not worked, and payments in kind.

1198. Countries should provide as long a historical series as possible; beginning, at the latest, in 1996. Longer historical series should be provided when available.

1199. For both infra-annual labour statistics and labour compensation statistics, the OECD prefers that seasonal adjustments be made by the national statistical offices (NSOs) as national statistics experts have better knowledge of local seasonal factors than international statisticians. However, if a country does not supply seasonally adjusted (s.a.) data or if the series of s.a. data they provide is not sufficiently long, the OECD undertakes the adjustments following the guidelines of the European Statistical System (method TRAMO-SEATS in the software JDemetra+).

11.2.1.3. Annual labour statistics

1200. The OECD also collects annual labour statistics. Since 2017, SDD compiles annual figures as averages of infra-annual LFS figures. As a consequence, the Annual Labour Force Statistics (ALFS) data collection via annual Excel questionnaires is progressively abandoned, as countries provide higher frequency data.

1201. The following annual series are required for ALFS; countries are encouraged, if possible, to provide them on a monthly or quarterly basis, ideally through the same data flow as the series listed in the Infra-annual labour statistics section above:

- Employed and unemployed people, by sex (total, men and women);
- Persons in employment, by professional status (according to ICSE-93[131]) and by sex (total, men and women);
- Persons in employment, by activities (preferably ISIC Rev.4, otherwise ISIC Rev.3) and by sex (total, men and women);
- Wage earners and salaried employees, by activity (preferably ISIC Rev.4, otherwise ISIC Rev.3) and by sex (total, men and women).

1202. The SDD annual Excel ALFS questionnaire sent to INEC in early 2019 (along with annual questionnaires from other OECD Directorates) only contains the three latter sets of data. Since data for employed and unemployed people by sex can be derived directly from the quarterly data that INEC already provides on a regular basis, these indicators have been removed from the annual data collection. If INEC is ready to provide the other ALFS data on a quarterly basis, they are encouraged to do so.

1203. Countries should provide as long a historical series as possible, beginning, at the latest, in 2000.

1204. Another 24 datasets of annual labour force statistics are requested by the OECD Directorate for Employment, Labour and Social Affairs (ELS), while the OECD Directorate for

[131]International Classification of Status in Employment (ISCE-93): http://www.ilo.org/global/statistics-and-databases/statistics-overview-and-topics/status-in-employment/current-guidelines/lang--en/index.htm and the recently adopted ICSE -18: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_648693.pdf http://www.ilo.org/global/statistics-and-databases/statistics-overview-and-topics/status-in-employment/current-guidelines/lang--en/index.htm

Education and Skills (EDU) requires two other datasets (see Chapter 13). ELS coordinates the Annual Labour Force questionnaire including that of Annual labour statistics listed above.

11.2.2. Compliance of labour statistics and labour compensation statistics

1205. For labour statistics and labour compensation statistics, the definitions and compilation methods used should preferably comply with the resolution on "Work, employment and labour underutilisation" approved by the 19th International Conference of Labour Statisticians (ICLS) in October 2013 (hereafter referred to as the "International Labour Organisation (ILO) guidelines"[132]). Compliance with the guidelines of the 13th ICLS convened in 1982 is acceptable, but it is foreseen that, within the coming years, the 2013 ILO guidelines will progressively become the general standard for all OECD member countries.

1206. Any divergence from the ILO guidelines should be clearly indicated in the metadata. For labour compensation statistics, the methodological reference in the ICLS resolution concerns an integrated system of wage statistics.

1207. For the harmonised unemployment (rates and levels), compliance requirements are based on definitions of the ILO guidelines. Under these definitions, the unemployed are persons of working age who did not perform any hour of work for pay or profit in the reference week of the survey, are available for work, and have taken active steps to find work in the previous four weeks[133].

11.2.3. Interpretability (Metadata requirements)

1208. For OECD purposes, complete and clear metadata should be available in one of the official languages of the Organisation, English or French. To ensure transparency of data and establish the confidence of users in an international setting, it is recommended that metadata be available in English and easily accessible over the internet of the NSO.

1209. For labour force statistics, the OECD requires metadata that describe the source, geographic coverage, urban/rural coverage, frequency, age groups, classification system, seasonal adjustment methods and treatment of armed forces and institutional populations.

1210. For labour compensation statistics, the Secretariat requires metadata that reports information on source, geographic coverage, key statistical concept, and calculation methods.

11.2.4. Timeliness

1211. It is important that countries provide data (or that data be available) at the same time, or immediately after, they are released nationally. Ideally, for both infra-annual labour force statistics and labour compensation statistics, monthly data should be available within one or two months (and, for quarterly data, within one quarter) after the reference period. Data for monthly harmonised unemployment should be available no later than 30-35 days after the reference period.

1212. In the case of annual data, it is important that countries provide the latest data available, usually within one quarter after the end of the year.

[132]See http://www.ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/19/WCMS_230304/lang--en/index.htm

[133]See Methodological note: OECD Harmonised Unemployment Rates

11.2.5. Data and metadata transmission – Labour statistics

1213. The Secretariat encourages countries to participate in the project to disseminate short-term economic statistics via SDMX. This approach will lessen the burden of data transmission for countries and for the OECD. This approach applies to infra-annual labour force statistics. As regards annual labour force statistics, Excel questionnaires should be used for transmission, until SDMX transmission on trial becomes operational.

1214. Methodological information on labour force statistics should be transmitted by countries through OECD questionnaires.

11.3. Evaluation of the labour and labour compensation statistics of Costa Rica

1215. In February 2017, INEC, in cooperation with the BCCR and with the financial support of the World Bank, launched a project to integrate several labour surveys into a single continuous survey (SIEH). This project actually started in May 2018 and is expected to last approximately two years. At the time of writing this report, half of the tasks related to this project are achieved. The project has three objectives: (i) establish an integrated sample design for household surveys, (ii) define an integrated thematic and conceptual framework for household surveys, and (iii) develop an integrated information technology system for household surveys. To this end, the following activities have been completed so far:

- Evaluation and analysis of current statistical production.
- Identify information requirements by users.
- Proposal of topics covered by the SIEH.
- Design of the SIEH.
- Design of the collection instrument.
- Evaluation and analysis of the sample design of the current statistical production.
- Sample design of the SIEH.
- Sample design of the pilot test.
- Final proposal of the sample design of the SIEH.
- Propagation and analysis of computer system design.

1216. This project will contribute to improve the quality and consistency of labour statistics in Costa Rica, and enable the development of labour accounts, i.e. an integrated framework for the development of consistent labour statistics issued from various sources. The employment matrix, developed by BCCR, and the quarterly ENAE business survey[134] on private firms (see chapter 2 and chapter 3) carried out by INEC, will provide valuable inputs for this project and the reviewers encourage both INEC and the BCCR to continue developing these tools.

1217. At the time of writing this report, work on the harmonisation of the Household Survey of Multiple Purposes (EHPM) and the Continuous Employment Survey (ECE), in particular for the years from 1987 to 2009, is left to be completed although INEC already proceeded with adjustments in both surveys during the review process.

[134] The ENAE survey will be redesigned in 2019.

11.3.1. Coverage

11.3.1.1. Infra annual and Annual Labour Force Statistics

1218. All subjects related to labour force statistics collected by SDD are covered by the quarterly ECE survey, and the various breakdowns (by sex, age, professional status and activity) are compliant with OECD requirements. There are, however, some differences:

- Time series available from ECE are very short compared to those produced in OECD member countries: quarterly ECE data are available only from the 3rd quarter of 2010 (and data for short-term and long-term unemployment from the 2nd quarter of 2012), while most OECD member countries have data available at least from the 1990's. Similarly, annual labour force data, computed as averages of quarterly ECE data, are available from 2010 only. Annual data for the period from 1987 to 2009 are available from the household survey *Encuesta de Hogares de Propósitos Múltiples* (EHPM), and have been provided by INEC to the OECD, but they are not comparable with ECE data. Harmonisation of EHPM data from 1987 to 2009, to be comparable to the ECE series, has been undertaken by INEC for the main labour market indicators (a linkage was made between the EHPM and ECE series by adjusting the expansion factors according to the latest population projections, and by adjusting definitions used to better comply with OECD requirements[135]) but some methodological differences still exist between the two series.
- The shortness of the ECE historical series makes seasonal adjustment very challenging. Seasonal adjustment of the infra-annual time series were performed by INEC but due to large fluctuations in the ECE time series, seasonal component could be identified for only a restricted subset of 25 time series.
- As regards to the annual labour force statistics reported to the OECD Directorate for Employment, Labour and Social Affairs (ELS), INEC transmitted data for all 24 datasets after a round of interaction to obtain more details on the definition of data requested by ELS. EHPM data are used to prolong the series from either 1987 or 2000 onwards. Overall, the data series are compliant with OECD definitions and requirements. However, some fine-tuning is needed in the case of a few datasets to ensure full compliance (i.e. Economic Short-term, Involuntary part-time and Actual annual hours worked).[136] INEC provided metadata information for each of the datasets in accordance with data requirements. Documentation available on INEC website is of good quality. In a few cases, national data require some adjustment of definitions to meet OECD needs (see previous point). Data for the Distribution of

[135] An urban structure by planning regions was elaborated taking into account the tendency of the urban area observed in the census of 1984, 2000 and 2011. This new urban structure was applied to the population projections obtained from de 2011 population and housing census, and then for the period 1987-2009, by planning regions. The expansion factors of the EHPM and ECE were adjusted, considering as roof the estimations of population by planning regions and urban/rural area generated in the previous steps. As the adjustment of the expansion factors of the ECE is made by sex and age groups; the EHMP also has an adjustment by sex and age groups, maintaining the same roof of planning regions and urban/rural area projected.

[136] This fine tuning will be conducted directly by ELS before the final draft of this report.

Earnings database are derived from ECE public use micro-data files so far for the period 2011 to 2017.

11.3.1.2. Labour compensation statistics

1219. The main economic activities required by OECD are available, based on ECE data: all activities, manufacturing, market services, and private sector, according to ISIC Rev.4.

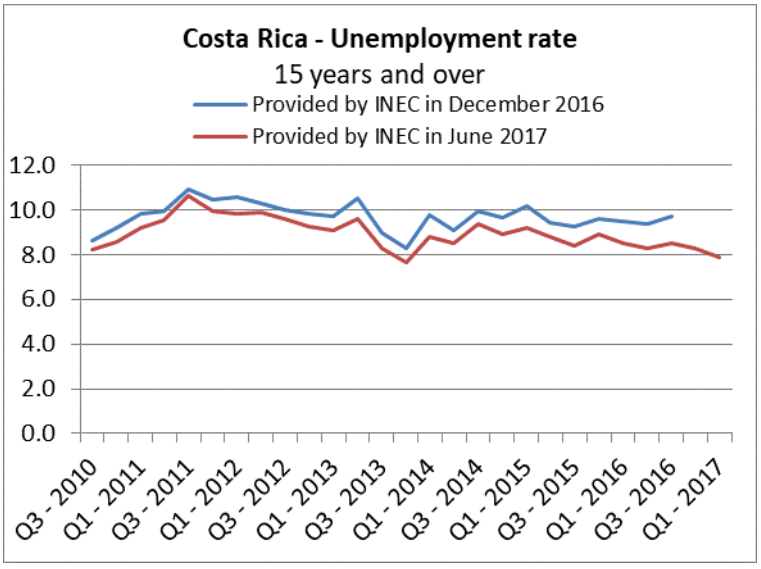
11.3.2. Compliance

11.3.2.1. Infra-annual labour statistics

1220. Definitions used for variables, in particular employment and unemployment, are consistent with ILO guidelines. The unemployment definition used by INEC at national level meets the ILO criteria with some exceptions however: persons who did not seek employment due to some special situations are included in INEC's definition of unemployment while they should not in ILO definition. Such situations include: persons waiting for the resumption of operations of a temporarily disrupted activity, persons waiting for a response from previous job search effort.

1221. "Waiting the results of an application for a job" is not considered by the ILO as an active job search method for those seeking employment even if the 13th ICLS (1982) allows for exceptions. However this exception is no longer retained in the 19th ICLS (2013).

1222. The unemployment data have been recalculated by INEC according to the definition used by the OECD. This recalculation lowers the unemployment rate by 0.5 percentage points in 2010 and around 1 percentage point in 2016, as shown in the graph below comparing the data provided by INEC in December 2016 with data recalculated by INEC in June 2017. This definition is only used in the data that INEC provides to the OECD. At national level, INEC will keep using the national definition on unemployment. It is recommended that INEC highlights this departure from ILO guidelines in its publications as it has been done in the quarterly publication at the time of writing this report, and in the longer term, changes its definition, as planned in the context of the development of the SIEH integrated survey.



1223. INEC has also adapted the ILO definition of "Unpaid family workers" to better conform to the situation of Costa Rica. INEC includes in this category persons who participate in any economic activity as help to a family member or to an acquaintance who has a business or owns

an activity (assist an own-account worker), as well as persons who participate in any activity as help to a family member or acquaintance who works for an employer (assist an employee), which are not considered as unpaid family workers according to the ILO; all this without receiving any payment, neither money nor in-kind. The OECD considers that this deviation from the international definition is acceptable but should be explained in the metadata publicized by INEC. During the review, INEC added a footnote in the tables releases quarterly.

1224. The use of ISIC Rev.4 for the classification of economic activity, as well as the compliance to the ICLS recommendations for the status in employment, is consistent with OECD requirements.

1225. Apart from conceptual and definitional aspects, another limitation concerns the monthly series provided by INEC, which are computed as moving averages over 3-months periods, whereas the OECD would ideally require actual monthly data. This should however not be considered as a priority by Costa Rica, but INEC committed to consider this question in detail when labour statistics will be reviewed extensively.

11.3.2.2. Labour compensation statistics

1226. According to the metadata provided by INEC, the definition of earnings complies with the ICLS terminology. INEC has already transmitted historical (annual and quarterly) data.

11.3.3. Coherence

1227. In the case of infra-annual labour market statistics, the data provided by INEC are consistent with OECD requirements. The following identities are verified:

- the Active population is the sum of employed population and unemployed population;
- the Working-age population is the sum of active population and inactive population;
- the number of unemployed people is the sum of short-term unemployed and long-term unemployed;
- the number of employed people is the sum of part-time employed and full-time employed.

1228. Consistency between total and sub-categories is also met for the variables collected by sex or age. With regard to annual labour force statistics, consistency between total and sub-categories is also met for the variables collected by sex, professional status or activity, and the labour force is equal to the sum of its components.

1229. Coherence between questionnaire for annual data and questionnaire for infra-annual data is also verified: for every indicator published in both questionnaires, the annual figure is the average of the quarterly figures.

1230. Finally, for both questionnaires, data are consistent over time for the period 2010-2018.

11.3.4. Interpretability

1231. For OECD Members, the most common source of information for the on-going update of metadata is the National Statistics Office's website. Although this information is primarily

available in Spanish on the INEC's website, detailed metadata in English is also available, in particular in the 2012 methodological document "Method and procedures of the ECE".[137]

11.3.5. Timeliness

1232. Quarterly data collected through the ECE survey are available about 5 weeks after the end of the reference quarter, which is adequate for inclusion in the OECD Harmonised Unemployment Ratio (HUR) press release. However, monthly data, which are computed as moving averages over the previous 3 months, are only available 9 weeks after the end of the reference month. The lower timeliness of ECE monthly data would make HUR data update for Costa Rica lagging compared to most OECD Members.

1233. On the other hand, for annual labour statistics, computed as averages of quarterly ECE data, timeliness meet the OECD requirements.

11.3.6. Data and metadata transmission

11.3.6.1. Infra-annual labour statistics

1234. The statistics assessed in this section were collected through the OECD infra-annual labour market statistics Excel questionnaire, as well as through the ALFS Excel questionnaire. In both cases, the transmission format is convenient in the perspective of integrating data for Costa Rica in the standard OECD data capture process. Thanks to the work of INEC, infra-annual labour market statistics are now also transmitted to the OECD via SDMX, which remains the preferred option for the OECD.

1235. SDD would like to also include in the infra-annual data collection the series for the ALFS dataset:

- Persons in employment, by professional status (according to ICSE-93) and by sex (total, men and women).
- Persons in civilian employment, by activities (preferably ISIC Rev.4, otherwise ISIC Rev.3) and by sex (total, men and women);
- Wage earners and salaried employees, by activity (preferably ISIC Rev.4, otherwise ISIC Rev.3) and by sex (total, men and women).

1236. INEC committed to provide the Secretariat with the new questionnaire in October 2019. SDD preference, however, would be to receive the additional ALFS indicators by SDMX which are available in the STES 3.2 DSD. The inclusion of the new series in SDMX format depends on the IT unit of INEC. INEC will let know if this is possible.

11.3.6.2. Labour compensation statistics

1237. Data and metadata for earnings are available on INEC's web site[138] and INEC transmits regularly data to the OECD via SDMX.

[137] http://www.inec.go.cr/sites/default/files/documetos-biblioteca-virtual/meeceempleo2012-01en.pdf

[138] http://sistemas.inec.cr/pad4/index.php/catalog/164.

11.3.7. Overall assessment – Labour force statistics and labour compensation statistics of Costa Rica

1238. In Costa Rica, the INEC is legally responsible for the production and dissemination of annual and infra-annual labour and labour compensation statistics required by the OECD. Costa Rica broadly meets the OECD requirements in terms of coverage and compliance. Data produced from the ECE survey is compliant with OECD requirements as regards sources of labour statistics. However, one pending issue is the availability of long time series, the ECE being relatively recent (the first available quarter is Q3 2010). This issue affects the identification of seasonal components and production of seasonally adjusted time series. During the review process, INEC made significant efforts to improve the annual time coverage and the consistency of data over time. At the time of writing, work on the harmonisation of annual data for years from 1987 to 2009 based on the Household Survey of Multiple Purposes (EHPM), and the Continuous Employment Survey (ECE), remains to be completed, although INEC already proceeded with adjustments in both surveys during the review process.

1239. Work undertaken by INEC to reduce to five weeks the lag between the release of quarterly data and the reference period of the survey allows Costa Rica to meet OECD requirements in terms of timeliness for quarterly data. With regard to monthly data, further work will be necessary in order to produce actual monthly data rather than moving averages over 3-months periods. As regards interpretability, INEC committed to provide users with more detailed metadata including explanations on the deviations from international standards.

1240. In May 2018, INEC, in cooperation with the BCCR, and with the financial support of the World Bank, launched the project to integrate by end 2023 several labour and households surveys (ECE, ENAHO, ENIGH, ENAMEH, etc.) into a single continuous survey (SIEH), with the following three main objectives:

- establish an integrated sample design for household surveys,
- define an integrated thematic and conceptual framework for household surveys, and,
- develop an integrated information technology system for household surveys, allowing INEC to provide users with detailed metadata.

1241. Half of the tasks related to this five-year project have been achieved. Completion of this project will significantly improve the quality and consistency of labour statistics in Costa Rica, and enable the development of labour accounts, i.e. an integrated framework for the development of consistent labour statistics issued from various sources. The employment matrix developed by the BCCR and the quarterly ENAE survey on private firms carried out by INEC will provide valuable inputs for this project.

CHAPTER 12. BUSINESS TENDENCY SURVEY AND CONSUMER OPINION SURVEYS

12.1. Background

1242. Business tendency survey (BTS) and consumer opinion survey (COS) are carried out to obtain qualitative information for use in monitoring the current business situation and forecasting short-term developments. Information from these surveys has proved of particular value in forecasting turning points in the business cycle hence they are used as inputs in the calculation of the OECD Composite Leading Indicators (CLIs).

1243. As one of the main advantages of qualitative surveys, the questionnaires can be completed quickly and the results of the survey can be published much sooner than the results of traditional statistical surveys. Tendency and opinion surveys cover a wide range of variables selected for their utility in monitoring the business cycle and include items not covered by quantitative statistics, such as capacity utilisation and views on the overall economic situation.

1244. In Costa Rica, there is no specific legal requirement with respect to the production of BTS and COS. While in many OECD member countries, the BTS and COS are conducted by research organisations that are not part of the National Statistical System, in Costa Rica, BTS and COS are listed in the statistical operations conducted in the national statistical system and included for the first time in the National Statistical Plan 2018-2022.

1245. The assessment of BTS below is based on information received from the Institute for Research in Economics (IICE) of the University of Costa Rica[139], the main public university in the country. BTS are also produced by the Costa Rican Federation of Chambers and Associations of Private Enterprises (UCCAEP) which, although repeatedly requested, never provided BTS data and related metadata to the OECD Secretariat. As a consequence, it was decided, in coordination with INEC, to move to another survey conducted by the IICE.

1246. COS are produced since September 2002 by the School of Statistics (UCR), which is also part of the University of Costa Rica. The COS was conducted twice per year (March and September) until March 2005, and is conducted quarterly (February, May, August and November) since August 2005.

1247. The BCCR also conducts the following economic surveys on business expectations:

- The Monthly Survey on Inflation Exchange Rate Expectations: conducted since January 2006 to obtain time series of expectations to incorporate into models. Entities surveyed include managers of financial institutions, consultants, businessmen and economics professors.
- The Semi-Annual Survey of Business Performance and Perspective: conducted since 2009 (in April and October) to gain insight into the industry's behaviour and collect information on labour force, costs, production and prices. All companies with more than 20 employees, that are formally registered in Costa Rica and which are related to the following industries are surveyed: agriculture, forestry and fishing, mining and quarrying, manufacturing, construction, trade, transport,

[139] *Instituto de Investigaciones en Ciencias Económicas de la Universidad de Costa Rica* (IICE)

storage and communication, real estate, social, communal and personal and business services.

- The Financial Survey to Households conducted to collect information on the financial balance and changes in the value of assets, liabilities and net worth of households, so as to improve macro-prudential oversight by the BCCR. The coverage is national and the reference period is 2014-2015. The sample size is 1650 households in both rural and urban areas. The survey is carried out by a private company (IPSOS) on behalf of the BBCR.

12.2. OECD data and metadata requirements for the business tendency and consumer opinion surveys

1248. What follows are the OECD data and metadata requirements pertaining to BTS and COS statistics, based on the OECD's core list[140].

12.2.1. Coverage

1249. The OECD data requirements for BTS are for monthly series on:

- Manufacturing sector:
  - Confidence indicator (% balance) - if not provided it can be computed in-house, if the following components are given: Production: future tendency; Order books: level; and, Finished Goods Stocks: level.
  - Business situation: present;
  - Business situation: future tendency;
  - Employment: future tendency;
  - Production: tendency;
  - Production: future tendency;
  - Order books: level;
  - Orders inflow tendency;
  - Finished Goods Stocks: level;
  - Capacity utilisation (rate);
  - Selling prices: future tendency;
  - Export order books: level.
- Construction Sector:
  - Confidence indicator (% balance) - if not provided it can be computed in-house, if the following components are given: Orders books: level; and Employment: future tendency.
  - Employment: future tendency;
  - Orders books: level;

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- Business situation: tendency;
- Selling prices: future tendency.

- Retail Trade Sector:
  - Confidence indicator (% balance) - if not provided it can be computed in-house, if the following components are given: Business situation: present; Business situation: future tendency; and, Volume of stocks: level.
  - Employment: future tendency;
  - Business situation: tendency;
  - Business situation: future tendency;
  - Volume of stocks: level;
  - Orders intentions/demand: future tendency.
- Services Sector:
  - Confidence indicator (% balance) - if not provided it can be computed in-house, if the following components are given: Business situation: present; Business situation: future tendency; and, Employment: future tendency.
  - Business situation: tendency;
  - Employment: tendency;
  - Employment: future tendency;
  - Demand evolution: tendency;
  - Demand evolution: future tendency.

1250. For COS, the following series are required:

- Consumer confidence indicator (% balance);
- Consumer Prices: future tendency;
- Expected economic situation.

1251. The information collected for business tendency surveys is described as qualitative because respondents are asked to assign qualities rather than quantities to the variables of interest. For example, in a business tendency survey, respondents might be asked to assign qualities to the value of their order books such as “higher than normal”, “normal” or “below normal”. Because of the difficulty of interpreting all three percentages, BTS results are normally converted into a single number, either using “balances” (difference between percentages of respondents giving favourable and unfavourable answers) or “diffusion indices” (expressed as a fraction of favourable answers plus half of the fraction of no change answers).

1252. Usually the series are seasonally adjusted, at least to some extent, resulting in a smooth series free of seasonal variation and noise. This and the fact that they usually do not need revisions facilitate their use in forecasting and, in particular, in predicting turning points in the business cycle. If a country specifically does not supply seasonally-adjusted (s.a.) data, the OECD publishes the raw series as no adjustment is undertaken in-house.

12.2.2. Compliance

1253. The OECD requests that definitions and compilation methods comply with the OECD harmonised system for business tendency surveys as described in the publication 'Business Tendency Surveys: A Handbook'[141] (2003, OECD, Paris). This Handbook is based on a standard framework for business tendency surveys established by the European Commission (EC) Directorate-General for Economic and Financial Affairs during the 1970s. The OECD has co-operated with the EC to adapt the framework to other countries, thus creating a harmonised system.

1254. As regards consumer opinion survey, the OECD requires that countries comply with the guidelines set in 'The Joint Harmonised EU Programme of Business and Consumer Surveys'[142].

12.2.3. Interpretability (Metadata requirements)

1255. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet. The Secretariat requires metadata describing the source, key statistical concepts and data coverage.

12.2.4. Timeliness

1256. It is important that countries provide data or that data be available at the same time, or immediately after, they are released nationally. Ideally, monthly data should be available within one month and quarterly data within one quarter after the reference period.

12.2.5. Data and metadata transmission

1257. In the medium to longer term, all countries are encouraged to develop the capacity to exchange data and metadata via the SDMX global data dissemination and exchange standard. This will be the most efficient and effective solution not only for dealing with the OECD but also for responding to demands of other international organisations and exchanging data with major users, too.

1258. In the meantime, the OECD is flexible and endeavours to work with each country to find the most efficient and effective solution that will guarantee regular, ongoing transmission of data. For BTS and COS statistics, it is ideal if data are available and accessible over the internet so that the Secretariat can build automated queries to capture the data as soon as they are released. If this approach is not feasible, transmission of data in EXCEL spreadsheets or in another electronic format will be negotiated and implemented on a case-by-case basis.

12.3. Evaluation of the coverage and compliance of BTS in Costa Rica

1259. The IICE is carrying out the Quarterly Business Tendency Survey ("Encuesta Trimestral de Expectativas Empresariales" ETEE) since 2010 with the aim to produce indicators for a better understanding of short-term expectations and as an additional criterion for decision making. According to an agreement between INEC and the IICE, the frame is based on the business register

[141] http://www.oecd.org/std/leading-indicators/31837055.pdf

[142] http://ec.europa.eu/economy_finance/db_indicators/surveys/documents/userguide_en.pdf

created and maintained by INEC (named "Directorio de Unidades Institucionales y Establecimientos" DUIE-2008) and the sampling unit is the establishment.

12.3.1. Coverage

1260. Quarterly BTS collect opinion of enterprises with more than five employees on the future economic changes in the sectors of agriculture, manufacturing, construction, retail trade and other services (financial and insurance activities; transportation and storage; electricity, gas, steam and air-conditioning supply; accommodation and food service activities; and real estate activities), which are used in estimating confidence indicators. The questions refer to employment, sales, investment, exchange rate between US dollar and Colon, etc.

1261. The sample frame includes 6 757 establishments and is stratified by size (employment) and by sector (according to the International Standard Industrial Classification of All Economic Activities, ISIC Rev.4). The whole country is covered and the geographic location of the establishments is not considered.

1262. The quarterly survey is conducted for each of the following sectors: agriculture and farming (10.1%), services (24%), construction (9.1%), manufacturing (27.7%), finance (3.3%), and trade (14.9%), electricity, gas, water and air conditioning (0.4%), transport and storage (8.6%), and real estate (1.9%)[143].

1263. After using a proportional stratified random sampling, the IICE obtains a sample of 538 establishments and applied an adjustment of 25 % for correcting errors resulting from non-responses (the response rate is about 80% since 2010 for all sectors). Every year, 25% of the establishments (134 units) are selected in every sector by rotation, finally attaining 672 response units. The size of each stratum in the sample is proportionate to the size of the frame structure with a maximum size of 100 establishments for wholesale and retail trade sector. The random selection of the establishments within each stratum is made with complex samples module in SPSS. Then each selected establishment is assigned to a panel or group of rotation, so that each panel is a representative sub-sample of the selection frame, but with a lower precision than the total sample.

1264. The questionnaire is composed of two sections: the first one is about basic information (name, address, telephones, emails, websites, contact and position (in case other than CEO/Owner), main activity, sector according the CIIU-4 and employment); and the second one is about the business expectations for the next quarter.

1265. Since 2010, data are collected via phone calls to CEO/Owners over the whole country every three months. Five questions within the thirteen questions composing the questionnaire remained the same since 2010 (employment, sales or production, profits, investment and competitiveness issues). Those five questions match with the OECD BTS questions. Six of the eight remaining questions are open-ended questions evaluated every year to determine any possible deletion or addition, depending on the objectives of the IICE. The OECD requests BTS target including, among others: employment; and sales or production. However, the OECD does not collect profits, investment and competitiveness. Hence, only two time series currently provided by the IICE meet OECD requirements in terms of coverage, i.e. employment future, production (either future or current).

1266. The questionnaire on BTS includes information on the following variables: labour, production, general context and internal sales, which does fully meet OECD requirements in terms

[143]The numbers in parenthesis reflect the sample distribution of each economic sector.

of variable coverage. Three variables are collected for the BTS: production future tendency, employment future tendency and confidence indicator for the industry, retail, construction and other services sectors, from 2010Q2.

1267. The IICE does not produce seasonally adjusted data but plans to release seasonally adjusted data in December 2019. According to the IICE, seasonally adjusted BTS results are not yet available due to the short time coverage. The IICE require a minimum of 6 years or six complete seasonal periods; although a transformation –such as Box-Jenkins- is necessary. The best would be to initiate the seasonal analysis when 26 measurements are available (now 36 are available).

1268. The IICE considers the development of a large database in the perspective to develop a Leading Indicator Approach to Economic Forecasting. Regarding future plans, the IICE mentioned the development of a leading indicator, by analysing the possible use of the expectations results as leading indicator of the economic activity, after IICE complete enough data points to do seasonal analysis.

1269. The IICE does not plan to develop monthly BTS, or to improve the coverage in the short-term.

12.3.2. Compliance

1270. The IICE calculates a quarterly index of business expectations (future production tendency for total economy and by economic sector) based on three possible answers (such as "increase, positive or favourable", "stability" and "decrease, negative or unfavourable") included in the questionnaire. A score, respectively of 100, 50 and 0 is assigned for employment, sales and production, investment, profits, and competitive position of the company. The value of the index is then calculated by summing the scores and then by dividing the result by the maximum of possible points. The index obtained ranges from 0 to 100, higher values meaning a greater optimism or increases in production expectations.

1271. Concerning BTS, the quarterly questionnaire used in the production of the ETEE refers to the *OECD Handbook on Business Tendency Surveys* and BTS results are presented according to the classification CIUU-4, compatible with ISIC Rev4, for the following sectors: agriculture and livestock, construction, commerce, industrial and other services (financial and insurance activities; transportation and storage; electricity, gas, steam and air conditioning supply; accommodation and food service activities; real estate activities.

12.4. Evaluation of the coverage and compliance of COS in Costa Rica

1272. Consumer Opinion Surveys (COS) are produced since September 2002 by the School of Statistics (UCR). The Consumer Confidence Index (ICC) is a product of COS and is decomposed in two additional indexes: the Index of Current Economic Conditions (ICEA) and the Index of Economic Expectations (IEE).

12.4.1. Coverage

1273. Concerning COS, questions asked in the surveys include the expected changes in the financial situation of the household, the expected changes on the household's savings, and those

on the general economic situation over the following 12 months, as well as on savings, and expectations for unemployment since September 2002[144].

1274. Unemployment expectations are not used to calculate the consumer confidence indicator. They are part of the questions that are asked to know about economic and social policy.

1275. With regards to COS, the data provided is compliant with most of the guidelines specified in the Joint Harmonised EU Program of Business and Consumer Survey. Most importantly, the following points are respected:

- A Consumer Survey program is running on-going since September 2002
- The questionnaire is unique, providing a set of comparable data on a national level
- A new random sample of 700 interviewees is selected for each survey, and the estimates provided have an acceptable margin of error on a national scale (the confidence indicator produces a significant difference when the change is ±1.8 points).
- The quality of the information collected in each survey is thoroughly revised.
- The information is made publicly available. The results are presented publicly at a press conference to the population, and are also sent to a selected list of individuals.
- A release calendar is available online since 2015, on the School of Statistics' website.

1276. The differences between Costa Rica's COS and Joint Harmonised EU Program of Business and Consumer Survey are:

- The Costa Rican COS is conducted quarterly (February, May, August and November), as opposed to monthly;
- The questionnaire used in Costa Rican COS was prepared by the Survey Research Centre at the University of Michigan, and thus is not identical to the harmonized questionnaire used by the OECD;
- COS time series are not seasonally adjusted in Costa Rica;
- From mid-2018, COS data and metadata are accessible online and can be downloaded from the internet website of the School of Statistics.
- The questions asked by the Costa Rican COS to calculate the consumer confidence indicator differs slightly from that suggested by the user guide of The Joint Harmonised EU Program of Business and Consumer Surveys in page 17 (the questions and wording were established by the Survey Research Centre at the University of Michigan).

1277. The EU Program suggests using the four following questions:

- Q2 How do you expect the financial position of your household to change over the next 12 months? It will… (get a lot better, get a little better, stay the same, get a little worse, get a lot worse, don´t know)

[144]The question is « How about people out of work during the coming 12 months - do you think that there will be more unemployment than now, about the same, or less?"

- Q4 How do you expect the general economic situation in this country to develop over the next 12 months? It will… (get a lot better, get a little better, stay the same, get a little worse, get a lot worse, don´t know)
- Q7 How do you expect the number of people unemployed in this country to change over the next 12 months? The number will… (increase sharply, increase slightly, remain the same, fall slightly, fall sharply, don´t know)
- Q11 Over the next 12 months, how likely is that you save any money? (very likely, fairly likely, not likely, not all likely, don´t know)

1278. The Costa Rican COS asks the following 5 questions:

- A2 Would you say that you (and your family living there) are better off or worse financially than you were a year ago? (better now, same, worse, don´t know)
- A3 Now looking ahead--do you think that a year from now you (and your family living there) will be better off financially, or worse, or just about the same as now? (will be better off, same, will be worse, don´t know)
- A4 Now turning to business conditions in the country as a whole--do you think that during the next 12 months financially speaking we´ll have good times, or bad times, or what? (good times, good time with qualifications, pro-con, bad with qualifications, bad times, don´t know).
- A8 Looking ahead, which would you say is more likely — that in the country as a whole we´ll have continuous good times during the next five years or so, or that we will have periods of widespread unemployment or depression, or what? (good times, same, bad times)
- A18 About the big things people buy for their homes—such as furniture, a refrigerator, stove, television, and things like that. Generally speaking, do you think now is a good or a bad time for people to buy major household items? (good, pro-con, bad, don´t know).

1279. To calculate the consumer confidence indicator, the School of Statistics assigns a value to each answer: 100 if the answer is positive, 50 if it's neutral or "don't know" and 0 to adverse responses. An average is then calculated using the five scores. The indicator's minimum is 0 for very pronounced pessimism, and the maximum is a 100, for a high degree of optimism. The OECD Secretariat converts the diffusion index into net balance for cross-country comparisons.

1280. From September 2002 until March 2005, the frequency of the COS was semi-annual (March and September) and six surveys were executed. As from August 2005, the survey has been conducted quarterly (February, May, August and November), accounting for 39 more surveys. Currently, there are a total of 45 surveys. The survey is financed by the University of Costa Rica. The interviewers are university students, mainly from the School of Statistics, but also from other social sciences. The students receive appropriate training for an afternoon.

1281. The population of study is composed of all households with landlines throughout the country. Thus, sampling unit is the phone. According to the National Household Survey of INEC, 50% of households in the country have landlines. Telephone interviews are conducted in a laboratory at the School of Statistics equipped with 15 computers, each with its own telephone line. For interviewing, a CATI (Computer-Assisted Telephone Interviewing) is used and data collection is done in less than 15 days. A program that generates random phone numbers was especially created for the purpose of the survey, following the principles of Waksberg (Frankel

and Frankel, 1987). Specifically, the Electricity Institute of Costa Rica (ICE) provides the phone banks with the first four active digits of telephone exchanges (source of frame). The program randomly selects a phone bank (first four digits of phone) and adds a random four-digit number to form a phone number. From each selected phone bank, 10 telephone numbers are randomly selected. Interviews are conducted with approximately 700 individuals. Preferably, the adult that is the household's main source of income is interviewed. If this is not feasible, an adult is interviewed to inform about the household's economic situation (about 10% of cases).

1282. From May 2019, the survey methodology has changed:

- population survey was established as all people aged 18 and over that are resident in Costa Rica;
- sample frame of telephones changed from fixed phone (at home) to mobile phone.

1283. As a consequence, the survey now collects information from people aged 18 and over who have a cell phone, and which represent 95% of the households population according to the most recent ENAHO survey while fixed phones allowed to reach only 40% of the households population. Moreover, households are no longer represented by their main source of income but more often by a person of 18 years or more. The impact of these modifications have been analysed by carrying out simultaneously four surveys with fixed and cellular phones in May, August and November 2018, and February 2019. Results show that the impact on the calculation of the main indicators of the survey are minimal and UCR then decided to continue with the new methodology. At the time of writing, UCR is preparing a scientific article with the aim to publish and share the results of the impact of the redesign of the COS on the main estimates of the survey. The sample size remains the same for each quarter.

1284. For each survey, a new telephone sample is selected. The sample is stratified according to a geographical criterion. More specifically, the sampling is done proportionally to three statistical strata: Metropolitan Area (55% of phone numbers), Rest of Central Valley (25%) and Rest of the Country (20%) to ensure adequate representation on a national level. No weighting methods are applied for sample estimates because the sample is self-weighting. Because the current sample is based on mobile telephony, it is not stratified. In order to remove the effect of non-response (which remains around 10%), a weight factor should be constructed based on sex, education and age.

1285. The processing of questionnaires is done during the phone call, as the respondent's answers are entered on the computer using the CSPro program. This program allows for automatic jumps and prevents interviewers from skipping questions or using codes that fall out of range, among other things. Once all interviews have been conducted, a SPSS database is built and information is reviewed to identify inconsistencies. Subsequently, the survey data is incorporated into the general database and results are obtained through a SPSS program. Past experience shows that 58% of surveys are completed during the first phone call, and that 25% require an additional effort. Therefore, 83% of surveys are completed within the first two phone calls. The response rate is approximately 92%, and no guidelines have been developed to treat non-response cases. More than 90% of the interviews are answered by the main income source.

12.4.2. Compliance

1286. The questionnaire was constructed based on the University of Michigan questionnaire, followed by adjustments to suit local needs. Twenty-five of their questions were included, and the socio-demographic variables section was expanded. The questionnaire has a total of 50 and covers the following topics:

- Assessment and expectations about the family economic situation.

- Perceptions and expectations about the economic situation of businesses in the country.
- Assessment and expectations of government actions in the economic field.
- Expectations about interest rates and prices.
- Expectations on family income.
- Perception of moment for durable goods spending (home and car).
- Approximation of the existence of discretionary spending.
- Basic measurement of income.
- Socio-demographic variables.
- Perception on the inflation rate (new topic).

1287. Occasionally, new modules are introduced to investigate issues related to consumers. A few examples are: perception on the inflation rate, access to financial services, participation in national celebrations and health issues.

1288. Interviewers always inform respondents that their participation is voluntary and that the information provided is confidential, as the confidentiality of the information that they are supplying in surveys is guaranteed by Article 4 of Law No. 7839. Respondents are also informed that the survey aims at investigating general opinion on issues related to the national economy. Individuals interested in having the survey results are informed that they will be made available at the end of the month on the website of the School of Statistics[145] and will be presented to the national media at the same time.

1289. Concerning classifications, the main control variables used in the questionnaire are:

- Sex of the main income source:
    1. Male
    2. Female
- Age of the main income source
- Completed years
- Last level of education attained by the main income source
    1. Elementary and Middle School or less
    2. High School
    3. University
- Occupation of the main income source
    1. Work
    2. Work and study
    3. Only studies

[145] www.estadistica.ucr.ac.cr

4. Housework
5. Retired
6. Unemployed
7. Another

- Occupational category of the main income source
    1. Private employee
    2. Public employee
    3. Self-employed (no employees)
    4. Employer (less than 5 employees)
    5. Employer (5 or more employees)
    6. Other
- Subjective monthly family income
    1. Insufficient income, have great difficulty
    2. Insufficient income, have difficulty
    3. Is just enough, without great difficulty
    4. Is enough, they can save
    5. No answer
- Total family income is greater than 500,000 Costa Rican Colons per month
    1. Yes
    2. No

1290. The quality of the survey is evaluated in several ways:

1. A training session is conducted for interviewers. Interviewers are students of the School of Statistics or other social science careers. The training covers different topics: the role of the interviewer, the interview technique, proper completion of the questionnaire and related matters.
2. Interviews are entered directly into the computer. For this, a CSPro data entry helps control codes out of range, makes automatic jumps and check that the questionnaire is completed.
3. In each survey a supervisor is assigned to solve any doubts from the interviewers.
4. The inconsistencies of the questionnaires (if any) are detected with a SPSS program.
5. If for any reason, a questionnaire has inconsistencies that can´t be resolved at the office, the respondent will be called again by phone.
6. During the tabulation of results the investigator reviews all variables in the data file.

7. Once charts and graphs are made, the results report is written. This report is previously sent to the Director of the School of Statistics and Statistical Services Unit for review.

1291. The UCR plans to continue introducing new modules related to consumers, such as: access to financial services (bank accounts, loans, using credit and debit cards), payment methods for major household bills (cash, debit , credit, automatic payment, etc.), most popular grocery stores, use of information and communication technologies (cell phones, tablets, computer, internet, social networks, etc.). With the change of methodology of the survey, the additional modules are maintained without changes. The residential telephone sample frame is no longer used and replaced by a sample based on mobile phones. Cell phone numbers are generated randomly selected by a program built in programming language R, using the active codes provided by the Telecommunications Superintendence.

12.5. Evaluation of the interpretability, timeliness, and data and metadata transmission of BTS and COS in Costa Rica

12.5.1. Interpretability (availability of Metadata)

1292. BTS metadata is accessible online in Spanish[146] only. As regards to COS, a methodological and analytical note is available on the UCR's website, and the UCR plans to upload detailed metadata on its website in 2017. Changes in the methodology of the consumer survey will be reported to the national press and posted on the website of the School of Statistics once the scientific article that is being written about the methodological changes made is published.

12.5.2. Timeliness

1293. The BTS and the COS are produced quarterly (since August 2005 for the latter).

1294. According to the information provided by IICE, BTS quarterly results are released approximately 1.5 months after the end of the data collection, i.e. during the first month of the reference quarter (only expectations are produced). The release of BTS quarterly results is done jointly with the presentation of macroeconomic forecasts. A release calendar[147] is available on the internet website of IICE. Results are usually presented together with the quarterly forecasts of the national economy produced by the IICE. The report in PDF format is made available to the public the same day of the presentation on the IICE website in Spanish. Tables or time series are not available for online consultation but they are provided by email to users upon request. The IICE is committed in providing the tables requested by the OECD one day after the publication of the results.

1295. The COS starts to be conducted at the beginning of the month in which the survey is carried out (February, May, August and November). In each survey, data collection ends in less than 15 days (2 weeks) and the data file is available a week later (3 weeks). During the 4th week, the data is processed and the report is written. The data is publicly presented on the last Wednesday of each month in which the survey was executed. For example, the 45th Consumer Survey began February 2, 2015, and was presented on Wednesday, February 25th. The results are always presented on the same month that the survey is performed. Data can be provided to the OECD one day after they are nationally released. At the time of the review, the OECD Secretariat receives

[146] http://www.iice.ucr.ac.cr/encuesta.html

[147] http://www.iice.ucr.ac.cr/conferencia_prensa/calendario.pdf

data at the end of February, May, August and November. The Survey publication calendar are available online in the School of Statistics web site, as well as the survey data and others related documents.

12.5.3. Data and metadata transmission

1296. BTS and COS data are regularly transmitted to the OECD in EXCEL files as soon as they are released nationally, as recommended by the Secretariat. BTS and COS are also publicly released on the Internet websites of the IICE and UCR respectively. Online access to COS data and metadata has been improved in April 2018. Users can access the report with the main results the same day of the presentation of results. Tables in Excel format are provided to the OECD Secretariat the following day.

12.5.4. Overall assessment of BTS and COS of Costa Rica

1297. In Costa Rica, there is no specific legal requirement with respect to the production of Business Tendency Surveys (BTS) and Consumer Opinion Surveys (COS). The assessment of BTS is based on information received from the Institute for Research in Economics (IICE) of the University of Costa Rica, the main public university in the country. BTS are also produced by the Costa Rican Federation of Chambers and Associations of Private Enterprises (UCCAEP), which, although repeatedly requested, never provided BTS data and related metadata to the OECD Secretariat. It was therefore decided, in coordination with INEC, to move to another survey conducted by the IICE. COS have been produced since September 2002 by the School of Statistics (UCR), which is also part of the University of Costa Rica.

1298. It is of note that the COS survey methodology recently underwent a significant renewal to deal with the rising problem of non-response to land-line telephone surveys. The new methodology – successfully tested over several months – uses mobile phone lines and is slanted to maintain the quality of the COS data. The review concludes that Costa Rica meets OECD requirements in terms of coverage, compliance, timeliness and data transmission for the COS produced by the School of Statistics of the University of Costa Rica.

1299. BTS produced by the IICE partially meet the OECD requirements in terms of coverage. Compliance with practices in OECD Members in this area would be further improved if IICE provides seasonally adjusted time series, as intended, in December 2019, and considers extending the coverage of BTS to the current business situation, as well as the potential development of monthly BTS in a longer term. Such developments would ensure that BTS could be used as input for the compilation of the OECD Composite Leading Indicators.

Chapter 13. INCOME DISTRIBUTION AND POVERTY STATISTICS, WELL BEING INDICATORS

13.1. Background

1300. The OECD Income Distribution and Poverty Database collects annually a set of indicators to benchmark and monitor income inequality and poverty across countries. While household income is only one of the factors shaping people's economic well-being, it is also the one for which comparable and regularly collected data for all OECD countries is most common.

1301. The OECD has a long association with research on the distribution of household income (since 1976), but it started its own regular income data collection only in the late 1990s. The database, initially conceived as "one-off" exercise, is now annually updated, reflecting the increasing importance of income inequality and poverty issues in policy discussion.

1302. To maximise international comparability and inter-temporal consistency of the data, the OECD has defined a common set of protocols and statistical conventions (e.g. on income concepts and components). The collection is done via a detailed data questionnaire and Terms of reference (ToR) that are provided to designated national contact-points (generally from National Statistical Offices) in each country. This approach allows covering all OECD countries, based on information that is well suited for assessing changes in income distribution over time. The close cooperation with the network of national contact-points also includes regular discussion on the quality and appropriateness of data and methodology as well as exchanges on proposed new developments in terms of data collection and conceptualisation.

1303. Each year, national experts provide the OECD with estimates in the form of semi-aggregated tabulations, based on the national source deemed to be most representative for each country.

13.2. OECD data and metadata requirements for income distribution

1304. This section considers the data and metadata requirements from the Terms of reference that are sent to the income distribution data providers in national institutes along with the data questionnaire, in order to guide them in the compilation of the IDD indicators of income distribution and poverty. It also reviews the OECD requirements to ensure comparability across countries within the IDD.

1305. In 2013, the OECD released a new version of the IDD Terms of reference (usually denominated as ToR Wave 7), which introduced changes aimed at better aligning the OECD income definition to the one recommended by the *2011 Canberra Handbook*[148]. The terms of reference presented in this section refer to the ToR Wave 7.[149]

[148] See http://www.unece.org/fileadmin/DAM/stats/groups/cgh/Canbera_Handbook_2011_WEB.pdf

[149] Questionnaires and Terms of reference are available in the OECD Data Collection Programme at the following address: http://www.oecd.org/statistics/data-collection/

13.2.1. Coverage

1306. The OECD requirements for the IDD comprise selected inequality and poverty indicators, disposable income per deciles, and disposable income per household groups. Ideally, as long historical annual series should be provided.

13.2.1.1. Inequality and poverty indicators

1307. The OECD collects a set of aggregate indicators on household disposable income (i.e. income after taxes and social benefits), income inequalities and poverty for three different population groups: the entire population, the population of working age (individuals aged 18-65) and the population of retirement age (individuals aged 66 and over). Children (persons aged below 18) should be included only in the entire population.

1308. The main income concept used by the OECD is that of household disposable income[150] (DI). Gini coefficients and poverty rates are computed primarily based on disposable income, but also according to the concept of market income (MI), i.e. income "before taxes and transfers". In addition to these two main income concepts, Gini coefficients for primary income (PI, i.e. market income excluding transfers from employment –related compulsory schemes) and gross income (GI, i.e. disposable income "before tax" (DI – TA)), are also included in the OECD questionnaire.

1309. Poverty is defined using both relative thresholds and a more "absolute" threshold (based on a relative threshold anchored in time and only updated for inflation):

- *Relative poverty*: the relative poverty threshold is expressed as a given percentage of the median disposable income, expressed in nominal terms (current prices). Therefore, this threshold changes over time, as the median income changes. Two relative poverty thresholds are used: the first one is set at 50% of the median equivalised disposable income (see definition below) of the entire population, the second one is set at 60% of that income.
- *"Absolute" poverty*: the "absolute" poverty threshold is set at 50% of the median income observed in a given reference year in the past. Only one reference year is used for this "absolute" threshold: 2005 (or the closest available year). This threshold should be inflation-adjusted each year so as to remain constant, in real terms, over time. The value of the poverty line and the consumer price index used to adjust it for inflation should be reported in the metadata transmitted to the OECD.

1310. Two types of indicators are used to characterise poverty:

- The *headcount ratio:* this is calculated as the number of individuals in the group considered with disposable household income per equivalent member lower or equal to the poverty threshold, as a percentage of the total number of individuals in the group considered.
- The mean *poverty gap ratio:* this is calculated as the difference between the poverty threshold and the mean disposable income of the poor, expressed as a percentage of the poverty threshold.

[150]Disposable income is the sum of income from employment (including employee income and income from self-employment), income from goods produced for own consumption, property income and current transfers received less current transfers paid.

13.2.1.2. Disposable income per decile

1311. Information on the structure and composition of household disposable incomes across deciles is also required. This includes data on the distribution across deciles of different income sources, for three population groups: the entire population; the population of working-age (individuals aged 18-65) and the population of retirement-age (individuals aged 66 and above). Children (persons aged below 18) should be included among the entire population.

1312. All income components should be reported on an annual basis and in nominal prices. Five main components of household disposable income are identified in the OECD questionnaire:

1. **E:** employee income, including wages and salaries, cash bonuses and gratuities, commissions and tips, directors' fees, profit sharing bonuses and other forms of profit-related pay, shares offered as part of employee remuneration, free and subsidised goods and services from an employer, severance and termination pay. Sick pay paid by social security should also be included.
2. **KI**[151]**:** capital and property income, including income from financial assets (net of expenses), income from non-financial assets (net of expenses) and royalties. Regular receipts from voluntary individual private pension plans and life insurance schemes should also be included in this income component.
3. **SEI**[152]**:** income from self-employment, including profits and losses from unincorporated enterprises, as well as goods produced for own consumption (net of the costs of inputs). [The inclusion of this latter variable aims to adjust the OECD income concept to the realities of middle-income countries (such as Brazil, South Africa and others), where subsistence agriculture represents a significant income source for people at the bottom of the distribution. Countries that do not collect information on this income item should indicate so in the metadata].
4. **TRR:** current transfers received, including transfers from social security (including accident and disability benefits, old-age cash benefits, unemployment benefits, maternity allowances, child and/or family allowances, all income-tested and means-tested benefits that are part of social assistance), transfers from employment related social insurance, as well as cash transfers from both non-profit institutions and other households
5. **TRP:** current transfers paid, including direct taxes on income and wealth, social security contributions paid by households, contributions to employment-related social insurance, current transfers paid to both other households and non-profit institutions. [Values for transfers paid should be reported in the OECD questionnaire with a negative sign].

1313. The elements detailed (for each of the five income variables) are those included in the conceptual definition of household disposable income of the *2011 Canberra Handbook* and that most OECD countries appear to collect in their micro-sources[153]. Countries that do not cover some of these detailed components in their source should indicate so in their metadata transmission.

[151]This definition of capital and property income differs from the definition used in the wave 6 ToR ("K") insofar as it no longer includes transfers received from compulsory employment-related occupational pension schemes.

[152]This definition of self-employment income differs from the definition used in the wave 6 ToR ("SE") insofar as it adds the value of goods produced for own consumption.

[153]See http://www.unece.org/stats/groups/cgh.html

1314. For four of these components, a more detailed breakdown is also requested:

- In the case of employee income (**E**):
  - **EH:** the wage and salary income of the household head, excluding employers' contributions to social security, but including sick pay paid by social security.
  - **ES:** the wage and salary income of the household head spouse or partner, excluding employers' contributions to social security, but including sick pay paid by social security.
  - **EO:** the wage and salary income from other household members, excluding employers' contributions to social security, but including sick pay paid by social security.
- In the case of self-employment income (**SEI**):
  - **SE**: income from self-employment, including profits and losses from unincorporated enterprises
  - **OC**: income from goods produced for own consumption
- In the case of current transfers received (**TRR**):
  - **TRRSS**: current transfers received from public social security.
  - **TRRER**: current transfers received from compulsory employment-related social insurance, e.g. occupational pensions.
  - **TRROT**: current transfers received from non-profit institutions and other private households, e.g. alimonies.
- In the case of current transfers paid (**TRP**):
  - **TA**: direct taxes on income and wealth paid by households (net of refunds), as well as contributions paid by households to public social security schemes.
  - **TRPER**: contributions paid by households to compulsory employment-related occupational insurance schemes.
  - **TRPOT**: current transfers paid by households to non-profit institutions and other households, e.g. alimonies.

1315. While relevance and data availability for the sub-components of current transfers will vary across countries (depending on the structure of their social protection system and on the features of their micro-data), this more detailed breakdown (when available) allows to better reflect the situation of countries with an important employment-related pension pillar.

13.2.1.3. Disposable income per household group

1316. Additional information on which types of households are at risk of low incomes, and how some particular sub-groups contribute to shape the overall pattern of inequality and income

poverty is also required. The OECD database shows, for various population sub-groups, the following variables:

- the percentage share of people in each group in the total population;
- the mean disposable income (in nominal prices) of each group;
- the poverty rate, before and after accounting for net transfers (taxes and public transfers), expressed in terms of the headcount ratio. The poverty threshold is equal to the first relative threshold used to calculate poverty indicators, i.e. 50% of the current median equivalised disposable income of the *entire* population.

13.2.2. Compliance

1317. The **unit of observation** of the survey should be the household. According to the definition recommended in the *2011 Canberra Handbook*, a household is either an individual person or a group of persons who live together under the same housing arrangement, and who combine to provide themselves with food and possibly other essentials of living.

1318. All income distribution indicators refer to **persons**. In the distribution, each household is weighted by the number of individuals who belong to this household. For instance, a household of four people has a weight equal to four; this is equivalent to considering a distribution in which this household is represented by four individuals with the same level of income.

1319. All estimates should be calculated using **an equivalence elasticity** (ε) of 0.5. This means that all income components of each household are adjusted by the square root of the household size. For instance, the income of a household with four persons should be divided by two and then attributed to the four members of the household (see http://www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf)[154]. Under this assumption, the sum (across the members of the same household) of individual "adjusted" incomes DI will exceed the total household disposable income by the amount of scale economies.

1320. Individuals are ranked according to the value of the "adjusted" disposable[155] income per equivalent household member of the household to which they belong. For instance, if Yi denotes the total disposable income of household i, the "adjusted" income of each member j of household i (DIij) is calculated as $DI_{ij} = Y_i / S_i^{\varepsilon}$, where Si is the number of members in household i and ε is the equivalence elasticity.

1321. The income components defined in the section on coverage requirements can be aggregated to various concepts of equivalised household income. The two most important ones used in the OECD questionnaire are those of "equivalised **disposable** income" and "equivalised **market** income". These two concepts are used to compute Gini coefficients and various income-poverty measures. A third concept, that of "equivalised **primary** income", subtracts employment-related transfers (compulsory schemes) from market income.

[154]The equivalence elasticity (ε) characterises the amount of scale economies that households can achieve.
An equivalence elasticity lower than unity implies the existence of economies of scale in household needs, i.e. any additional household member needs a less than proportionate increase of the household income in order to maintain a given level of welfare.

[155]Except for the following indicators: Gini market income, Gini before taxes and Gini primary income.

1322. Individual **disposable** income per equivalent household member, individual **market** income per equivalent household member, and individual **primary** income per equivalent household member for each member *j* of household *i*, can then be expressed as follows:

1. Equivalised disposable income: $DI_{ij} = E_{ij} + KI_{ij} + SEI_{ij} + TRR_{ij} - TRP_{ij} =$

$= (EH_{ij} + ES_{ij} + EO_{ij}) + KI_{ij} + (SE_{ij} + OC_{ij}) + (TRRSS_{ij} + TRRER_{ij} + TRROT_{ij}) - (TA_{ij} + TRPER_{ij} + TRPOT_{ij})$

2. Equivalised market income: $MI_{ij} = E_{ij} + KI_{ij} + SEI_{ij} + TRRERij + (TRROTij - TRPOTij)$

3. Equivalised primary income: $PI_{ij} = E_{ij} + KI_{ij} + SEI_{ij} + (TRROTij - TRPOTij)$

1323. In equation [2], market income includes transfers received from employment related schemes as well as the balance between the transfers *received* by each household from non-profit institutions and other households (TRROTij) and the transfers *paid* by each households to non-profit institutions and other households (TRPOTij). In equation [3], primary income excludes employment-related transfers (compulsory schemes) paid or received.

1324. The income concepts described above provide the basis for computing the Gini coefficients. To that end, individuals should be ranked in increasing order of the relevant income concept (i.e. DI, MI or DI-TA) before computing Gini coefficients.

1325. Once the equivalent household member adjustments are done, using the equivalence elasticity under consideration, the individual components of market income EH, ES, EO, KI, SEI, showing **negative values** should be set to zero. For instance, any negative value of self-employment income should be set equal to zero before computing the income of each household. Similarly to taxes (TA), transfers paid to non-profit institutions and other households (TRPOT) should be recorded as negative values. Transfers paid to non-profit institutions and other households should be retained even in the case of negative values. If transfers paid exceed gross household income (i.e., the sum of earnings, self-employed income, capital income and transfers received), transfers paid should be set equal to gross household income. Also, in that case the components of transfers paid (i.e. taxes and transfers paid to non-profit institutions, contributions paid by households to employment-related social insurance schemes) should be scaled down proportionally.

1326. Then, market and disposable incomes are calculated using formulas [1] and [2]. The ranking of individuals is done on the basis of these new values of disposable income.

1327. Finally, mean of market income and disposable income are computed over all incomes values e.g. zero and positive incomes.

13.2.2.1. Inequality and poverty indicators

1328. Individuals should be ranked according to their household disposable income per equivalent household member as described in equation [1], except for the indicators:

- "Gini market income" (i.e. before taxes and public transfers), where individuals are ranked according with their market income per equivalent household member, including cases with zero market incomes;
- "Gini before taxes", where individuals are ranked according to their pre-tax income, including cases with zero income; and

- "Gini primary income" (i.e. income before taxes, public transfers and flows associated to employment related pension schemes), where individuals are ranked according to their primary income, including cases with zero income.

Table 10. Indicator formulae

Indicator	Formula	Comments
Gini Index	$Gini = \left(\frac{2}{\mu.n^2}\cdot\sum_{k=1}^{n} k.W_k\right) - \frac{n+1}{n} = \frac{2\,\mathrm{cov}\left(W_k, \frac{k}{n}\right)}{\mu}$ $= \frac{\frac{2}{n}\sum_{k=1}^{n}(W_k-\mu).\left(\frac{k}{n}-\frac{1}{n^2}\sum_{k=1}^{n}k\right)}{\mu}$	Household incomes per equivalent household members (Wk) are ranked in ascending order (such as k = 1, 2, …, n). Individuals falling in each of the three population groups (entire population, population of working age and population of retirement age) should be ranked separately. n is the total number of individuals; μ is the arithmetic mean of disposable incomes: $\mu = \frac{\sum_k W_k}{n}$.
Mean poverty gap	$\frac{(z-\mu_p)}{z} = \frac{\left(\frac{1}{p}\sum_{i=1}^{p}\sum_{j}(z-W_{ij})\right)}{z}$	z is the poverty threshold; p is the number of poor; μ_p is the mean income of the poor

1329. While poverty indicators "after taxes and transfers" are based on the equivalised disposable income of each person, poverty indicators "before taxes and social security transfers" are based on the equivalised market income of the individual. However, both types of poverty indicators are based on a poverty threshold set in terms of equivalised disposable income. In other terms, people are counted as poor "before taxes and social security transfers" when their market income is lower or equal to 50% (or 60%) of the median disposable income (i.e. the poverty thresholds are the same as those used for poverty indicators "after taxes and social security transfers").

1330. The poverty threshold used for indicators both "before" and "after taxes and social security transfers" is calculated based on the entire population. In other words, poverty rates for the working-age and the retirement-age population are computed based on the median income for the entire population.

13.2.2.2. Disposable income per decile

1331. Individual observations are ranked by ascending values of household disposable income per equivalent household member (DIij). For each of the population groups, income estimates are ranked separately; i.e. upper bound values should be specific to the population groups, and each decile should contain 10% of the respective reference population.

1332. The upper bound value is the income value at the upper breaking point of the corresponding decile. Therefore, the upper bound value of decile 1 corresponds to the income of the 10% up from the bottom individual; that of decile 9, to the income of the 90% up from the bottom individual and that of decile 10, to the highest (possibly top coded) income value.

1333. For each income decile, the sum of all income components should be equal to the mean (equivalised) disposable income. Therefore, taxes should be entered with a negative sign.

13.2.2.3. Disposable income per household group

1334. Individuals should be classified by household type according to the characteristics of the household reference person (or household head). In line with the *2011 Canberra Handbook*, it is recommended that the household reference person be identified by going through (sequentially) the criteria listed below, until a person is identified:

- one of the partners in a registered or de facto marriage, with dependent children;
- one of the partners in a registered or de facto marriage, without dependent children;
- alone parent with dependent children;
- the person with the highest income; and
- the oldest person.

1335. These criteria imply that, in the case of households composed by two or more adults, the household reference person (or head) is the one with the highest income or (in the unlikely case where two adults have identical income) the oldest person.

1336. The basic criteria to be used to classify people by household type is the age of the household reference person (non-retirement-age head, i.e. under 66 years old ; and retirement age head, i.e. aged 66 and over), leading to two major groups. The OECD questionnaire includes breakdowns for both households with a non-retirement-age head and for household with a retirement age head.

1337. The first group corresponds to individuals belonging to a household with a head of non-retirement-age (under 66). Household heads below 18 years old should be considered as "non-retirement age head". Then, within this reference population, individuals are cross-classified according to each of the following criteria:

- the number of adults in the household they belong to: single adult vs. two adults or more. An adult is any individual aged 18 and above;
- the number of children in the household they belong to: with children vs. without children. A child is defined as any individual aged 17 or less;
- the number of household members in employment: no worker, one worker, two workers. A worker is an adult with non-zero annual earnings or self-employment income.

1338. This classification for households with a head of non-retirement age results in ten household types:

1) single adult, no children, working;
2) single adult, no children, non-working;
3) single adult, with children, working;
4) single adult, with children, non-working;
5) two or more adults, no children, two or more working;
6) two or more adults, no children, one working;

7) two or more adults, no children, non-working;

8) two or more adults, children, two or more working;

9) two or more adults, children, one worker;

10) two or more adults, children, no workers.

1339. In the (rare) case of households headed by a person aged less than 17, it is recommended that these household reference persons be also considered as "adult".

1340. The second group corresponds to individuals belonging to a household with a head of retirement age (i.e. 66 and over). Within this reference population, individuals are cross-classified according to a more simplified set of criteria than the one used for households with a working age head and the one used in past TORs.

- First, as very few members of these households are likely to be aged less than 18, no distinction is made according to the presence or absence of children (i.e. household types are based on the number of person in the households, rather than distinguishing between adults and children).
- Second, the classification only distinguishes between household with at least one working member and those where no member has a paid job.

1341. The classification of household types for households with a head of retirement age hence results in four categories:

1. single person, working;
2. single person, not working;
3. two or more persons, at least one working; and,
4. two or more persons, none working.

1342. For indicators by age and gender groups, the reference population is the entire population, and individuals are grouped according to their age into seven age ranges: 1) 0 to 17 years old; 2) 18 to 25 years old; 3) 26 to 40 years old; 4) 41 to 50 years old; 5) 51 to 65 years old; 6) 66 to 75 years old; 7) over 75.

1343. Additionally information on the share of the population, mean income and the poverty headcount by gender of each individual, across the seven age groups detailed above is included in the OECD questionnaire.

13.2.3. Interpretability

1344. Metadata are collected to report the definitions used and the assumptions made to calculate the various indicators, notably in cases where the raw data used did not make it possible to follow strictly the recommendations made in the OECD Terms of Reference. Departures from the definitions and methodologies recommended above should be reported in the metadata.

1345. For OECD purposes, complete and clear metadata must be available in one of the official languages of the Organisation, English or French. However, to ensure transparency of data and establish the confidence of users in an international setting, it is strongly recommended that metadata be available in English and easily accessible over the internet. In particular, the following metadata items are relevant by the OECD:

- nature of data sources (e.g. surveys or administrative data);

- population excluded from the dataset (e.g. remote areas);
- unit of collection and definition of the unit (e.g. households);
- definition of the head person of the unit of collection;
- criteria for being interviewed;
- period for conducting field work;
- reference period for the collection of income data;
- mode of data collection;
- level of geographical breakdown available;
- compliance with statistical standards (major departures from international standards, i.e. *2011 Canberra Handbook* practical definition (p. 56) should be reported);
- treatment of tax credits;
- type of data available in the final dataset of the agency producing the data (e.g. continuous variables, intervals, ratio…);
- sample size;
- unit non-response rate;
- item non-response rate (e.g. by type of income);
- use of imputation methods for item non-response (method of imputation, main income components for which imputation is used, prevalence of such imputed data by component in the most recent wave);
- use of bottom or top coding; the data revisions;
- comparability to other sources (e.g. national accounts or administrative data); and,
- the value of the poverty line and the consumer price index used to adjust the "absolute" poverty threshold for inflation.

13.2.4. Timeliness

1346. It is important that data are made available to the OECD at the same time, or immediately after, they are released nationally. Currently, national data providers are required to provide their estimates by November of the second year following the reference year of the survey.

13.2.5. Data and metadata transmission

1347. Data are collected through a detailed Excel data questionnaire sent by the OECD to participating countries by mid-October. This Excel file contains five sheets: one sheet for the collection of information on data source, survey year and reference year, three sheets for the data collection and one sheet for the metadata transmission.

13.2.6. Coherence

1348. Coherence between the total income and its component should be achieved as follows:

- Household disposable income should be equal to the sum of its five main components: employee income (E), capital and property income (KI), income from self-employment (SEI), current transfers received (TRR) and current transfers paid (TRP) [reported with a negative sign].
- The values of each component should be equal to the sum of the value of their sub-components, as described in paragraph 13.18 in the "coverage" section.

13.3. Evaluation of income distribution and poverty statistics for Costa Rica

1349. The assessment below is based on the data produced by INEC in accordance with the terms and conditions of the Article 34 of the National Statistics System (SEN) Law N°9694, which confirms Article 15 of the Law No. 7839. INEC is responsible for the production and dissemination of income distribution and poverty statistics for Costa Rica, as formally established by the National Statistical Plan 2018-2022.

1350. This assessment is based on data and metadata received from INEC and available on-line in the INEC databases and publications.

1351. Data are collected by INEC through the annual national households survey (Encuesta Nacional de Hogares, hereafter ENAHO) carried out in July since 2010. ENAHO is a multi-purposes cross sectional survey. Information provided refers to household income, poverty, housing and other social conditions, economic and demographic issues related to living conditions, and employment. Core aspects covered by the survey are Total Household income, Poverty indicators (incidence, severity), and Income distribution. Some income items required by the OECD, such as current transfers paid by household (e.g. taxes), are not collected by the ENAHO survey. Taxes, social security contributions paid by household and contributions paid by households to compulsory employment-related schemes are imputed by INEC for employees.

1352. The reference period for the collection of data on income is the last month, with the exception of incomes received once a year and self-employment incomes, for which the reference period may vary, depending on the economic activity they refer to.

1353. Dwellings are the sample unit. These are selected through a stratified two-stage random sample. The sample included 10 519 units and 10 712 households in 2018, and 1 120 census based groups and 13 440 dwellings in 2017.

1354. The response rate to the ENAHO survey was of 86.0% in 2018 and 83.3% in 2017.

1355. While some OECD countries improve the relevance of data through the linkage of survey data with information from administrative source, the INEC does not use administrative data in the production of income distribution statistics in Costa Rica.

1356. INEC received the financial support of the World Bank in February 2017[156] for a new project aiming to redesign surveys of employment and household income in order, among other issues, to meet the information needs required by the OECD for the calculation of disposable income and their disaggregation. The two-year project started in 2018 with a review of the current measurement approaches to household income and the reconstruction of a series of comparable data since 1987 at least, on the basis of the information deemed comparable.

156 http://documents.worldbank.org/curated/en/726211496153042617/pdf/IL-AISPID-CP-P163431-05-30-2017-1496153027001.pdf

13.3.1. Coverage

1357. Data covers the whole country with urban-rural disaggregation and disaggregation by region.

1358. With respect to time coverage, comparable data are available for the years from 2010 to 2018 (at the time of writing this report, the OECD collected data until the year 2017). This time coverage is rather short, compared to that available for most other OECD Members. INEC also sent to the OECD information including income and poverty statistics for 1987 to 2009. However, the series 1987-2009 and 2010-2017 are not comparable because of the differences in the definition of income measure and the way the information is collected. Time-series of key indicators from ENAHO are not linked to those available from previous surveys (i.e. the multipurpose households survey conducted from 1987 to 2009, and the Household Survey of Costa Rica, carried out from 1968 to 1986), although the availability of comparable data for several years prior to 2010 would be very welcome for analytical purposes.

1359. In terms of variables available, one gap is the unavailability of poverty rates anchored in 2005 (i.e. poverty rates were the threshold is 50% of the median income in 2005) for recent years, due to the absence of a time series comparable over time back to 2005. This indicator could be nevertheless be computed with a 2010 base year from 2010 onwards.

1360. Current transfers paid by households to non-profit institutions and other households are also missing.

13.3.2. Compliance

1361. The following income items are not available from the ENAHO, either because they are excluded from the survey or because they are not specified in the survey questionnaire:

- Severance and termination pay are not available and, therefore, not included in Employee income, while Director's fee, Shares offered as part of employee remuneration and Employers' social insurance contributions are not specified in the survey questionnaire;
- Royalties are not included in Capital and property income;
- Private pensions and other insurance benefits are not available and, therefore, not included in Current transfers received, which, furthermore, do not include information on accident benefits, maternity allowances, transfers from employment related social insurance, as these are not available separately from employee and self-employed incomes.

1362. Furthermore, limited information is available with regard to the Current transfers paid by households: INEC imputes income taxes and social security contributions for the employees who, respectively, declared deductions for income taxes and for social security health system in the survey, but Compulsory fees and fines, Current inter-household transfers paid, employers' social insurance contributions are excluded.

1363. The unavailability of micro-level information on taxes (and hence on household disposable income) is the aspect where the national statistics depart from the OECD definitions.

13.3.3. Timeliness

1364. Costa Rica meets the OECD requirements in terms of timeliness for income distribution statistics as INEC releases data on the previous year three months after the completion of the

fieldwork, usually in October. Anonymised microdata are available for free from the website of INEC five months after the completion of the fieldwork, i.e. in December of each year.

13.3.4. Data and metadata transmission

1365. As far as the regular transmission of data and metadata is concerned, Costa Rica meets the OECD requirements. Data and metadata are regularly transmitted to the Secretariat with the help of the OECD Excel questionnaires.

13.3.5. Interpretability

1366. The methodological information on income distribution statistics is made available and regularly updated on the Internet site of INEC. However, this information is available in Spanish only and INEC is encouraged to provide detailed methodological information in English on its Internet website, in order to permit international users to better understand the data.

13.3.6. Coherence

1367. Arithmetic consistency across ENAHO data transmitted by INEC is achieved as regards the following points:

- For each indicator for which information is available by decile and type of population, the data for the total population considered is consistent with the data by decile.
- For each deciles and age groups, the data provided for the household disposable income are consistent with the data broken down by income components, i.e. the total household disposable income equals the sum of its five main components; and the components equals the sum of their sub-components.
- Consistency is also reached between data for the total population and for the different household groups (household structure, work attachment, age of individuals).
- The poverty rates provided by INEC in the "Disposable income per household groups" table (Table 3 of the questionnaire) are consistent with those from Table "Inequality and Poverty indicators" (Table 1 of the questionnaire).

13.3.7. Overall assessment of Costa Rican income distribution and poverty statistics and main recommendations

1368. The OECD Income Distribution and Poverty Database aims at collecting annually a set of indicators to benchmark and monitor income inequality and poverty across countries. To maximise international comparability and inter-temporal consistency of the data, the Secretariat has defined a common set of protocols and statistical conventions. Data and metadata are collected from INEC via a detailed questionnaire and Terms of Reference.

1369. Overall, income distribution and poverty statistics for Costa Rica meet the OECD minimum requirement in terms of coherence, timeliness, and data and metadata transmission. Data coverage is somewhat lower than that of most OECD Members, in particular, current transfers paid by household (e.g. taxes) are not collected by the ENAHO survey and some other income items are currently excluded from the survey. The efforts made by INEC to provide historical income data for the period 1987-2009 are very much appreciated, but data are not comparable with data for years from 2010, whereas the availability of comparable data for several years prior

to 2010 would be very welcome for analytical purposes. The willingness of INEC to improve methodological information in English available online is welcome.

1370. The reviewers welcome the INEC project to redesign employment and household income surveys, as it will enable progress in the data coverage of the income items required by the OECD, as well as in the construction of a time series of comparable data since 1987.

13.4. Well-being indicators

1371. The OECD Better Life Initiative aims at measuring the well-being of people and the progress of societies. This is a key priority for the OECD, whose overarching mission is to promote "Better Policies for Better Lives". This initiative focuses on developing statistics that go beyond the traditional macro-economic indicators, are focused on people and capture aspects of life that matter to them and that, taken together, shape the quality of their lives.

1372. Two important elements of this initiative are the "How's Life?" bi-annual report and the "Better Life Index" (BLI). The "How's Life?" report provides a comprehensive picture of well-being in OECD countries and other major economies, by looking at people's material conditions and quality of life across the population through 25 headline indicators (and more than 30 secondary indicators to complement the analysis on specific topics) pertaining to 11 life-dimensions. The BLI is an interactive web-based tool that allows citizens to compare well-being across OECD countries and beyond, and is based on 24 of the 25 headline indicators grouped into the 11 dimensions of the OECD well-being framework.

1373. At this stage, the assessment of Costa Rica's statistics is limited to the analysis to the 25 headline indicators included in "How's Life?" to the exclusions of secondary indicators. Some of them are extracted from traditional sets of statistics, such as national accounts or labour force surveys, and their assessment should be linked with that of the parent set. Some others are experimental indicators that, in some cases, go beyond standard official statistics developed by statistical offices (e.g. indicators that are based on non-official surveys, such as the Gallup World Poll).

1374. As regards the Better Life Initiative, considering the diversity of sources used for the 25 headline indicators (some of them coming from international databases), the present assessment is limited to the availability of the national data for Costa Rica. The assessment is based on statistical information provided by INEC though a detailed Excel questionnaire.

13.4.1. OECD data requirements for the headline indicators of well-being and availability for Costa Rica

Dimension 1: Income and Wealth (source: National Accounts)

Household net adjusted disposable income

1375. According to the 2008 System of National Accounts (2008 SNA), household net adjusted disposable income is defined by adding to households' net disposable income the social transfers in-kind that households receive from governments (such as education and health care services). Data refer to the sum of households and non-profit institutions serving households (S14_S15). Unit of measurement: US dollars at current PPPs per capita (PPPs used are those for actual individual consumption).

1376. Additional information: Data by quintile (average of quintile 5 and quintile 1 of household net adjusted disposable income)[157].

1377. Data for Costa Rica are available under the new system of National Accounts.

Household net wealth

1378. Household net wealth consists of both the real and financial assets and liabilities held by private households resident in the country, as measured in microdata. The concept of wealth corresponds to the one presented in the *OECD Guidelines for Micro Statistics on Household Wealth* (OECD, 2013). Data are collected per household (rather than per person or per adult), without adjustment to reflect differences in household size. Data exclude pension wealth, the size and distribution of which differs markedly across OECD Members, depending on the characteristics of their retirement systems. Data refer to the sum of households' non-financial assets, financial assets (excluding pension assets related to employment, and liabilities. Unit of measurement: US dollars at current PPPs per capita (PPPs are those for household private consumption).

1379. Microdata for Costa Rica are not available. INEC and BCCR are planning to design a methodology to collect information on financial and capital of households in 2020. In addition to information on real estate wealth, this information would allow Costa Rica to meet the OECD requirements for this indicator.

Dimension 2: Jobs and earnings (source: Labour Force Survey and National accounts)

Employment rate

1380. It is the number of employed persons aged 15 to 64 over the population of the same age. Employed people are those aged 15 or more who report that they have worked in gainful employment for at least one hour in the previous week, as defined by the International Labour Organization – ILO. Unit of measurement: Percentage of the working-age population (aged 15-64).

1381. Additional information: Data by gender (for men and women); data by educational attainment (0/1/2 ISCED group and 5/6 ISCED group).

1382. Data for Costa Rica are available in the "Encuesta Continua de Empleo" (ECE), the national Labour Force Survey.

Long term unemployment rate

1383. This indicator refers to the number of persons who have been unemployed for one year or more as a percentage of the labour force (the sum of employed and unemployed persons). Unemployed persons are defined as those who are currently not working but are willing to do so and actively searching for work. Unit of measurement: Percentage of the labour force.

[157]The Secretariat calculates quintile 5 and 1 of the household net adjusted disposable income by applying the quintile5 (1) to average ratio of household disposable income, as collected through the OECD Income Distribution and Poverty programme, to the average household net adjusted disposable income as collected through the OECD National Accounts.

1384. Additional information: Data by gender (for men and women); data by educational attainment (0/1/2 ISCED group and 5/6 ISCED group)[158].

1385. Data for Costa Rica are available in the ECE, the national Labour Force Survey.

Average gross annual earnings of full-time employees

1386. This indicator refers to the average annual wage per full-time equivalent dependent employee, which are obtained by dividing the national-accounts-based total wage bill (Wages and salaries – SNA D11) by the average number of employees in the total economy, which is then multiplied by the ratio of average usual weekly hours per full-time employee to average usual weekly hours for all employees (sourced from the Labour Force Surveys). It considers the employees' gross remuneration, that is, the total before any deductions are made by the employer in respect of taxes, contributions of employees to social security and pension schemes, life insurance premiums, union dues and other obligations of employees. Unit of measurement: US dollars.

1387. Additional information: Data by gender (for men and women); data by quintile (quintile 5 and quintile 1).

1388. Wages and salaries for Costa Rica are available under the new system of national accounts, allowing the calculation of this indicator.

Labour market insecurity

1389. This indicator refers to aspects of economic security that are related to the probability of job loss and its economic cost for workers. This is measured by using two sub indicators (unemployment risk and unemployment insurance) and by deriving the product of unemployment risk and one minus unemployment insurance. The risk of unemployment encompasses both the risk of becoming unemployed and the expected duration of unemployment, while the unemployment insurance takes into account both the coverage of the benefits and their generosity.

1390. Unit of measurement: Percentage of previous earnings.

1391. Additional information: Gender inequality (men versus women); Socio-economic inequality (people who have attained tertiary education versus the ones with a below upper secondary education attainment); Age groups (15-29 years old, 30-49, 50-64).

1392. Micro-data from the ECE the national Labour Force Survey for Costa Rica could be used to compute the sub indicator "unemployment risk", However the second sub indicator cannot be calculated because in Costa Rica it doesn't exist an unemployment insurance in which the State provides a subsidy to the unemployed.

Dimension 3: Housing (source: various surveys on living conditions, national accounts)

Number of rooms per person

1393. This indicator refers to the number of rooms (excluding kitchenette, scullery/utility room, bathroom, toilet, garage, consulting rooms, office, shop) in a dwelling divided by the number of persons living in the dwelling. Unit of measurement: Rate (number of rooms divided by the number of people living in the dwelling).

[158]Data by educational attainment are often available for unemployed people (not for long-term unemployed). Imputations are therefore calculated by the Secretariat.

1394. Data for Costa Rica are available in the national Household Survey (the "Encuesta Nacional de Hogares").

Dwellings without basic facilities

1395. This indicator refers to the percentage of the population living in a dwelling without an indoor flushing toilet for the sole use of the household. Flushing toilets outside the dwelling are not to be considered in this item. Flushing toilets in a room where there is also a shower unit or a bath are also counted. Unit of measurement: Percentage of the population.

1396. Data for Costa Rica are available in the "Encuesta Nacional de Hogares", the national Household Survey.

Housing expenditure

1397. This indicator considers the expenditure of households in housing and maintenance of the house, as defined in the SNA (P31CP040: Housing, water, electricity, gas and other fuels; P31CP050: Furnishings, households' equipment and routine maintenance of the house). It includes actual and imputed rentals for housing, expenditure in maintenance and repair of the dwelling (including miscellaneous services), in water supply, electricity, gas and other fuels, as well as the expenditure in furniture and furnishings and households equipment, and goods and services for routine maintenance of the house as a percentage of the household gross adjusted disposable income. Data refer to the sum of households and non-profit institutions serving households (S14_S15). Unit of measurement: Percentage of the household gross adjusted disposable income.

1398. Data for Costa Rica are available under the new system of National Accounts.

Dimension 4: Health Status (sources: Administrative data, health surveys or household surveys)

Life expectancy at birth

1399. Life expectancy measures how long on average people could expect to live based on the age-specific death rates currently prevailing. This measure refers to people born today and is computed as a weighted average of life expectancy for men and women. Unit of measurement: Number of years.

1400. Additional information: Data by gender (for men and women).

1401. Data for Costa Rica are available from the "Estadísticas Vitales" (Vital statistics - register).

Self-reported health status

1402. This indicator refers to the percentage of the population aged 15 years old and over who report "good" or better health. The WHO recommends using a standard health interview survey to measure it, phrasing the question as "How is your health in general?" with response scale "It is very good/ good/ fair/ bad/ very bad"[159]. Unit of measurement: Percentage of the population.

[159]Source: WHO (1996), "Health Interview Surveys: Towards International Harmonization of Methods and Instruments", *Who Regional Publications*, European Series, No. 58.

1403. Additional information: Data by gender (for men and women); data by net disposable income quintile[160] (quintile 5 and quintile 1).

1404. Data for Costa Rica is available in the national Health Survey, but only referring to the year 2006. The forthcoming results of the 2018 National Survey on Disability (ENADIS) would permit INEC to disseminate more recent data for this indicator.

Dimension 5: Work and Life (sources: Labour force survey, Time use survey)

Employees working very long hours

1405. This indicator measures the proportion of dependent employed whose usual hours of work per week are 50 hours or more. Unit of measurement: Percentage of the dependent employed.

1406. Additional information: Data by gender (for men and women).

1407. Data for Costa Rica are available in the "Encuesta Continua de Empleo" (ECE), the national Labour Force Survey.

Time devoted to leisure and personal care

1408. This indicator measures the amount of hours (minutes) per day that, on average, full-time employed people spend on leisure and on personal care activities. Leisure includes a wide range of indoor and outdoor activities such as walking and hiking, sports, entertainment and cultural activities, socializing with friends and family, volunteering, taking a nap, playing games, watching television, using computers, recreational gardening, etc. Personal care activities include sleeping (but not taking a nap), eating and drinking, and other household or medical or personal services (hygiene, visits to the doctor, hairdresser, etc.) consumed by the respondent. Travel time related to personal care is also included. Unit of measurement: Number of hours (minutes) per day spent on leisure and personal care.

1409. Additional information: Data by gender (for men and women).

1410. At the time of this drafting this report, Costa Rica has conducted three surveys on time use: the first one was a section attached to the 2004 National Survey of Multiple Purposes, the second one was an independent survey in the 2011 Greater Metropolitan Area, and the third one was the first National Time Use survey conducted in 2017 by the INEC.

1411. In 2011, the National University of Costa Rica conducted the "Encuesta del Uso del Tiempo", i.e. the Time Use Survey, for the "Gran Area Metropolitana" covering 31 cantons, grouped in four metropolitan areas, namely: San José, Cartago, Heredia and Alajuela.

1412. In 2017, INEC conducted the National Survey of Time Use covering the whole country with a statistical sample of two-stage type and stratified by planning region and urban-rural area. The sample size was 380 UPM, 4 560 households and 11 400 people. The survey consisted of three questionnaires: a questionnaire on housing and home, a questionnaire on external aid to the household in domestic work and care, and a questionnaire on time use. Data was collected from October 23 to November 24, 2017.

[160]If the information is not available for net disposable income (after taxes and transfers), then gross income can be considered. Note that for OECD countries data coming from health surveys generally relate to individual income, while data coming from household surveys generally relate to household (equivalised) income.

1413. The 2017 National Time Use Survey is considered by the OECD as the best source for the statistical inputs necessary to make all forms of work visible to people, both outside and inside the home, whether paid or unpaid. However, the OECD requires microdata.

Dimension 6: Education and skills (sources: Labour force survey, UNESCO, PISA, administrative data)

Educational attainment

1414. Educational attainment considers the number of adults aged 25 to 64 holding at least an upper secondary degree over the population of the same age, as defined by the ISCED classification. Unit of measurement: Percentage of the adult population (aged 25 to 64).

1415. Additional information: Data by gender (for men and women).

1416. Data for Costa Rica are available. In order to guarantee international cross country comparability, the BLI will include data from the "Encuesta Continua de Empleo (ECE)" and compliant with ISCED 2011. These data are provided by Costa Rica to the OECD Directorate for Education and Skills.

Students' cognitive skills

1417. Students' average score in reading, mathematics and science as assessed by the OECD's Programme for International Student Assessment (PISA). Unit of measurement: average PISA scores.

1418. Additional information: Data by gender (for boys and girls); Socio-economic inequality (PISA index of economic, social and cultural status (ESCS) top quintile versus bottom quintile).

1419. Data are available in the Programme for International Student Assessment (PISA), co-ordinated by the OECD, as Costa Rica participated to PISA in 2009, 2012, 2015 and 2018.

Expected years in education

1420. This indicator is the average duration of education in which a 5 year old child can expect to enrol during his/her lifetime until the age of 39. It is calculated under the current enrolment conditions by adding the net enrolment rates for each single year of age from the age of five onwards. Unit of measurement: number of years.

1421. Additional information: Data by gender (for boys and girls).

1422. Data for Costa Rica are partially available. As information on students with tertiary education by age is not available, the indicator cannot be calculated for the interested age period (5 to 39 years) following the OECD definition and methodology.

Competencies of the adult population

1423. Mean proficiency in literacy and numeracy of adults aged 16 to 64. It is based on data collected through the OECD Survey of Adult Skills, which is part of the Programme for the International Assessment of Adults Competences (PIAAC), co-ordinated by the OECD.

1424. Additional information: Data by gender (for men and women); data by parents' educational attainment ("neither parent has attained upper secondary education" versus "at least one parent has attained tertiary education").

1425. Data for Costa Rica are not available.

Dimension 7: Social connections/Community (source: The Gallup World Poll)

Social network support

1426. It's a measure of perceived social network support. The indicator is based on the question: "If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?" and it considers the respondents who respond positively. Unit of measurement: percentage of people aged 15 and over.

1427. Additional information: Data by gender (for men and women); data by educational attainment (0/1 ISCED group and 5/6 ISCED group).

1428. Data for Costa Rica are available via the Gallup World Poll.

Dimension 8: Civic engagement and governance (sources: OECD survey of regulatory management system, IDEA and Comparative Studies of Electoral System)

Stakeholder engagement for developing regulations

1429. This indicator describes the extent to which formal stakeholder engagement is built in the development of primary laws and subordinate regulations. The indicator is calculated as the simple average of two composite indicators (covering respectively primary laws and subordinate regulations) that measure four aspects of stakeholder engagement , namely i) systematic adoption (of formal stakeholder engagement requirements); ii) methodology of consultation and stakeholder engagements; iii), transparency of public consultation processes and open government practices; and iv) oversight and quality control that refers to existence of oversight bodies and publicly available information on the results of stakeholder engagement. The maximum score for each of the four dimensions/categories is one and the maximum aggregate score for the composite indicator is then four. The stakeholder engagement indicator has been computed based on responses to the OECD's regulatory indicators survey, where respondents were government officials in OECD countries. The scores for primary laws refer exclusively to processes for developing primary laws *initiated by the executive*.[161]

1430. Data for Costa Rica are available from the *OECD Regulatory Policy Outlook 2018*.

Voter turnout

1431. Voter turnout is here defined as the ratio between the number of individuals that cast a ballot during an election (whether this vote is valid or not) to the population registered to vote. As institutional features of voting systems vary a lot across countries and across types of elections, the indicator refers to the elections (parliamentary or presidential) that have attracted the largest number of voters in each country. Unit of measurement: Percentage of the population.

1432. Additional information: Data by gender (for men and women); data by income quintile (quintile 5 and quintile 1).

1433. Data for Costa Rica are available via the International Institute for Democracy and Electoral Assistance (IDEA).[162]

[161] Source: OECD (2018), OECD Regulatory Policy Outlook 2018, OECD Publishing, Paris. https://doi.org/10.1787/9789264303072-en.

[162] http://www.idea.int/vt/countryview.cfm?id=54

Dimension 9: Environmental quality (sources: OECD Air quality and health, the Gallup World Poll)

Air pollution

1434. The indicator is the population weighted average of annual concentrations of particulate matters less than 2.5 microns in diameter (PM2.5) in the air. Unit of measurement: Micrograms per cubic meter.

1435. Data for Costa Rica are calculated by the Secretariat on the basis of data from the Global Burden of Disease assessment (Brauer, M. et al. (2016) "Ambient Air Pollution Exposure Estimation for the Global Burden of Disease 2013" *Environmental Science & Technology* 50 (1), Pages 79-88), as for the OECD Members and partners.

Satisfaction with water quality

1436. The indicator captures people's subjective appreciation of the environment where they live, in particular the quality of the water. It is based on the question: "In the city or area where you live, are you satisfied or dissatisfied with the quality of water?" and it considers people who responded they are satisfied. Unit of measurement: Percentage of people aged 15 and over.

1437. Additional information: Data by gender (for men and women).

1438. Data for Costa Rica are available via the Gallup World Poll.

Dimension 10: Personal security/Safety (sources: The World Health Organisation Mortality Database, the Gallup World Poll)

Homicides rates

1439. Deaths due to assault. Unit of measurement: Age-standardised rate per 100 000 population.

1440. Data for Costa Rica are available from the judicial register (Registro del Podel Judicial).

Feeling safe walking alone at night

1441. The indicator is based on the question: "Do you feel safe walking alone at night in the city or area where you live?" and it shows people declaring they feel safe. Unit of measurement: Percentage of people aged 15 and over.

1442. Additional information: Data by gender (for men and women).

1443. Data for Costa Rica are available via the Gallup World Poll.

Dimension 11: Subjective well-being (source: The Gallup World Poll)

Life satisfaction

1444. The indicator considers people's evaluation of their life as a whole. It is a weighted-sum of different response categories based on people's rates of their current life relative to the best and worst possible lives for them on a scale from 0 to 10, using the Cantril Ladder (known also as the "Self-Anchoring Striving Scale"). Unit of measurement: mean value (Cantril Ladder).

1445. Additional information: Data by gender (for men and women); data by educational attainment (0/1 ISCED group and 5/6 ISCED group).

1446. Data for Costa Rica are available via the Gallup World Poll.

13.4.2. Overall assessment of Costa Rican well-being indicators

1447. The present assessment of the well-being indicators is limited to the availability of data for Costa Rica for the twenty-five OECD headline indicators that form the core of the measurement in the OECD's Better Life Initiative. In terms of coverage, twenty-two of the twenty-five indicators are available, with missing indicators household net wealth, adult competencies in education, and microdata from time use survey, expected years in education being partially available. Although there is no formal plan or timetable envisaged for their calculation, these indicators will be available in the future, considering the on-going redesign of the household survey, the 2017 Time Use Survey, which represents a key infrastructure, and the likely participation of Costa Rica in the OECD Survey of Adult Skills, which is part of the Programme for the International Assessment of Adults Competences (PIAAC).

Chapter 14. ASSESSMENT OF COSTA RICAN STATISTICS COLLECTED BY OTHER DIRECTORATES

14.1. Background

1448. This chapter brings together brief summary assessments of various statistical domains in terms of quality and international comparability of statistics for Costa Rica. The collection of information is under the responsibility of various OECD Directorates.

14.2. Agriculture Statistics

1449. The OECD Trade and Agriculture Directorate (TAD) collects statistics on agriculture and fisheries. The *OECD Food and Agricultural Reviews - Agricultural Policies in Costa Rica* has been published on 3rd April 2017. The Secretariat received excellent cooperation from the Costa Rican authorities. However, accessing basic information from the private sector remains sometimes difficult for government officials and formalised agreements between public and private sectors could improve data sharing.

14.3. Development Assistance Statistics

1450. OECD development assistance statistics cover Official Development Assistance (ODA) and other aid and development related official and private flows from thirty Development Assistance Committee (DAC) members, multilateral agencies, regional development banks, a large number of non-DAC providers of development cooperation as well as a large number of private philanthropic foundations. Statistics are collected through the annual DAC/Creditor Reporting System (CRS) questionnaire, including detailed (activity-level) information on ODA, and the Advanced Questionnaire with preliminary aggregate figures on ODA flows.

1451. Costa Rica is not member of the DAC and does not report on its development co-operation to the OECD on a regular basis. However, it has shown interest in DAC statistical work, and has provided the Secretariat with data on its multilateral ODA contributions and triangular co-operations projects. Therefore, the Secretariat noted therefore a very positive change in Costa Rica's willingness and ability to meet OECD data requirements on an ongoing basis.

1452. At present, Costa Rica stores data on development co-operation (both received and offered) in the platform SIGECI, (International Cooperation Projects Management System, in Spanish), managed by the Ministry of Planning (MIDEPLAN). SIGECI is supported by two regional systems: (i) SIDICSS (Ibero-American Integrated Data System on South-South and Triangular Cooperation, in Spanish), maintained by the Ibero-American General Secretary (SEGIB), and (ii) the SICOR (Regional Cooperation Information System, in Spanish), powered by the Central-American Integration System (SICA).

1453. However, Costa Rica could benefit from support to adapt its statistical systems to better capture and report data on development flows on a regular basis. Such support could be provided through the statistical engagement work stream of the Financing for Sustainable Development Division (FSD) and the Foresight, Outreach and Policy Reform Unit (FOR) of the Development Co-operation Directorate. The Inter-American Development Bank has also shown interest in reinforcing Costa Rica's national systems to manage data on development co-operation.

1454. OECD is currently developing a new measure of Total Official Support for Sustainable Development (TOSSD) with the broader international community. Costa Rica is member of an international Task Force established to this effect, and has championed TOSSD in a number of events. For example, it hosted one of the TOSSD Task Force meetings in 2017 and a TOSSD side event at the UN Statistical Commission annual meeting in 2019. In September 2018, the OECD conducted a TOSSD pilot study in Costa Rica[163], which concluded that the country has a good statistical reporting system and has the human and technical capacity to report on its development co-operation in the TOSSD framework. Costa Rica participated in the TOSSD Data Survey which was carried out in March-June 2019.

1455. Regarding data on private flows and official flows channelled through private entities and universities, Costa Rica has signalled that data are not available at the time of drafting the review as these entities have no obligation to report to the government. Legal reforms and new internal processes would be needed to make progress in this area. The OECD could advise the country on those reforms.

14.4. Education Statistics

1456. The OECD Education Directorate (EDU) collects data for the Indicators of Education Systems (INES) programme that are published in the annual publication Education at a Glance (EAG).

1457. INES offers detailed, comprehensive data on:

- the entire national education system of participating countries, regardless of who owns or sponsors the institutions concerned, or how education is delivered
- all levels of education, including early childhood education, primary and secondary education, tertiary
- education, and adult education and training
- different types of students, including students from different age groups and social backgrounds
- different kinds of education, including public education, government-dependent and independent private education, vocational education and training, special education programmes, and other specialised programmes.

1458. INES enables education systems to assess themselves in the light of other countries' educational performance, by providing a rich and internationally comparable set of indicators on:

- the output of educational institutions and the impact of learning on economic and social outcomes;
- the financial and human resources invested in education;
- the access to education, participation and progression; and,
- the learning environment and organisation of schools.

1459. The INES project includes different data collections:

[163] The report will be published in March/April 2019. A summary is available at http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/TOSSD-Pilot-Study-Costa-Rica-Highlights.pdf

- the joined UNESCO-OECD-Eurostat (UOE) data collection on Education;
- the regular data collections of the INES Network for the Collection and Adjudication of System-Level Descriptive Information on Educational Structures, Policies and Practices (NESLI), which focus on teachers' salaries and working time; and instruction time data collections; and,
- the data collections of the Network on Data Collection and Development on Economic, Labour Market and Social Outcomes of Education (LSO), comprising the National Educational Attainment Classification (NEAC); Transition from education to the labour market (TRANS); and Earnings data collections.

1460. The INES project also includes some additional data collections, including the trend data collection and the INES Ad-hoc Surveys such as the ad-hoc survey on Tuition Fees and Financial Support to Tertiary Students or the ad-hoc survey on Completion rate.

Data sources

1461. The data providers are INEC and the Ministry of Education and Planning (MEP).

Coverage against OECD data requirements

1462. Since discussions on the accession of Costa Rica to the OECD have been formally opened in April 2015, Costa Rica showed interest to participate in INES activities and in the computation of Indicators for EAG. At that moment, Costa Rica was already participating in the UNESCO Institute for Statistics (UIS) data collection on education, using international standards and definitions agreed between OECD, UNESCO and Eurostat and was also participating in NEAC, TRANS and Earnings data collections of the LSO Network. Thus, Costa Rica was also following the internationally agreed definitions and methodologies that ensure comparability of the indicators across countries. Costa Rica was included for the first time in the 2016 edition of EAG when it provided data for almost half the indicators. Two year later, in the 2018 edition, Costa Rica was included in two-thirds of the indicators.

1463. In November 2016, discussions between the Secretariat and Costa Rican authorities led to the agreement of Costa Rica to participate to regular INES data collections. The Ministry of Education and Planning (MEP) and INEC agreed to provide additional data and metadata on the number of students, graduates, entrants, expenditure on education, educational personnel and class size. At the time of writing, Costa Rica is participating to the UOE, LSO and NESLI data collections. Costa Rica is also participating occasionally to the regular INES and NESLI meetings and occasionally to the LSO meetings.

1464. Within the INES project, the OECD coordinates a large number of questionnaires that countries fill out in order to produce the comparative education statistics that are used in a number of reports across the Education Directorate. Among these questionnaires, the UNESCO-UIS / OECD / EUROSTAT (also known as UOE) is one of the largest. Since MEP started submitting data in 2016, it has always completed its delivery and subsequent revisions and modifications. The main surveys in the NESLI questionnaires relate to "Instruction time" and "Working time". Costa Rica has committed to send these complete questionnaires each year and participate actively in their improvement. Since 2017, Costa Rica has regularly sent delegates to the semi-annual meetings of INES and NESLI.

1465. Similarly, the questionnaires from the LSO network were all completed this year, and Costa Rica has provided the data required to compute all indicators via ECE-INEC.

1466. Costa Rica still does not participate in the additional INES, LSO or NESLI data collections, which include the trend data collection and Ad-hoc Surveys as agreed during each network's biannual meetings. These surveys are optional although countries are strongly encouraged to provide data if possible. At this time, none of the Ad-Hoc surveys have been submitted, for the following reasons:

1. Attrition Data Availability Survey: Costa Rica informed NESLI delegates during their meeting in Ireland in March 2018 that it could not provide this information due to the lack of data to correctly evaluate the attrition issue. In addition, Costa Rica did not support the methodology proposed for the calculation of attrition rate.
2. Ad-hoc Survey on ECEC (Early Childhood Education and Care): After analysis, it has been concluded that data provided to MEP by other entities present an important bias which generates duplicate data. The Statistical Analysis Department is still working on this, and estimates to send this questionnaire with even partially completed, in the next few weeks.
3. 2018 Ad-hoc survey on tertiary completion rates: This questionnaire requires exclusive data of university education, in charge of CONARE, who have indicated they do not have the required information.
4. Ad-Hoc Survey on Tuition Fees and Financial Support to Students: In the same way, it is an exclusive data questionnaire from universities, but CONARE could not complete the data given the absence of systematised data.
5. Fifth INES Priority rating exercise: It was not sent because it is considered to be an intermediate priority questionnaire, and work was being done first on the high priority ones.
6. FINANCE Trend data collection: The MEP is training personnel for the Statistical Analysis Department for the correct management and analysis of the budget information so that the information can be sent correctly.
7. In summary, of the six ad-hoc questionnaires, Costa Rica is able to send partial information of the ECEC, the Priority rating exercise and the Finance trend data collection within a period of one month.

Data transmission

1467. Data were provided through the questionnaires transmitted via mail.

Overall assessment

1468. Costa Rica is currently represented in the Education at a Glance (EAG) publication (using the joined UNESCO-OECD-Eurostat (UOE) data collection on Education questionnaires and LSO and NESLI questionnaires.

1469. Overall, Costa Rica complies with OECD requirements for education statistics in most respects. Significant efforts have been undertaken over the past years to improve the coverage of INES indicators. While the ad-hoc questionnaires are optional, the provision of this information, in particular trend data, would provide a more holistic view of the Costa Rican education system.

1470. Costa Rica also made great efforts to participate actively in the collection, processing and supply of data and in the analysis of information derived from the OECD bodies related to education statistics (INES Working Party, NESLI and LSO). Since 2017, Costa Rica participated in the biannual INES and NESLI meetings. Being of mutual benefit to provide deeper insights on

additional educational topics to a wide variety of users (policymakers, researchers, educators and members of the public), active participation in INES, LSO and NESLI meetings should be pursued.

1471. Costa Rica seems to be committed to accomplish the necessary work to fill the gaps and meet further OECD requirements during its accession process.

14.5. Employment, Health and Other Social Statistics

1472. The OECD Directorate for Employment, Labour and Social Affairs (ELS) collects data on annual labour force, labour market expenditures, health, public pensions, and other social statistics. This section resume the assessment of health statistics, indicators on social expenditure (SOCX), affordable and social housing, and public pensions statistics.

14.5.1. Health Statistics

1473. The Health Division of the OECD Directorate for Employment, Labour and Social Affairs (ELS) sends out an annual questionnaire, the OECD Health Data Minimum Dataset Questionnaire, to non-Member countries. This covers core indicators from the main data collection on non-expenditure data, with a view to publishing the data and metadata in the database OECD Health Statistics in OECD.Stat at the end of June each year. These core indicators are also published in the flagship publication Health at a Glance (OECD Indicators every other year).

1474. The OECD Health Data Minimum Dataset Questionnaire covers the following indicators taken from the various datasets available in the database:

- Life expectancy (Total, females and males, at birth, and at ages 65 and 80)
- Infant mortality
- Tobacco consumption (% of population, females and males aged 15+ who are daily smokers)
- Alcohol consumption, litters per capita (aged 15+)
- Obese population, self-reported and measured (by gender)
- Practising physicians
- Generalist medical practitioners
- Practising nurses
- Total hospital beds
- Medical technology: Computed Tomography scanners and Magnetic Resonance Imaging units
- Doctors consultations (in all settings)
- Hospital aggregates: Inpatient care discharges (all hospitals), Inpatient care average length of stay (all hospitals), and Curative care average length of stay
- Government/social health insurance (number of persons and percentage covered)
- Total private health insurance (PHI) coverage

1475. Detailed expenditure and financing data are taken from the ongoing annual Joint OECD-Eurostat-WHO Health Accounts Questionnaire (JHAQ). Finally, ELS collects data via the OECD

Health Care Quality and Outcomes (HCQO) Data Collection. The HCQO is sent to all member countries biennially (i.e. every two years) to align with the publication Health at a Glance.

Data sources

1476. Sources include the Ministry of Health (MoH) and/or the national statistical office, and can be administrative sources, ad hoc surveys, registries, etc. When available, data are extracted by the OECD Health Division from the World Bank, WHO, and/or other international data sources, so as to limit the burden on countries and enhance data comparability across countries. The latest data for Costa Rica, as part of the Minimum Questionnaire, were transmitted by the MoH in May 2019, and included data up until 2018 for several indicators. Health expenditure and financing data were submitted by the MoH in 2018 for the period 2011-16 via the JHAQ, with updated series submitted in 2019.

Coverage against OECD data requirements

1477. Coverage of Costa Rican data is quite good, and significant efforts have been made to provide data on the health workforce (practising physicians, generalist medical practitioners, and practising nurses), hospital beds and medical technology, hospital aggregates, and health coverage (public and private), which had been previously missing. The health sector, led by the MoH, has been strengthening communication channels with other sources of primary data, both in public and private sector, including the Costa Rican Department of Social Security (CCSS) and professional associations, for the timely provision of data. This improvement in the communication mechanisms have been made through exchanges between the highest authorities, so that the entities are aiming to better coordinate among them and provide the necessary information requested by OECD and other organisations in a timely manner.

Interpretability

1478. Data previously extracted from the World Bank have now been mostly replaced by national sources in the 2019 data collection. The quality of metadata provided with the Minimum Dataset Questionnaire (2019 data collection) is adequate but further improvements will be needed, so as to provide more detailed information on coverage and methodology.

Compliance with international standards and methodologies used in most OECD countries

1479. A full assessment of whether Costa Rica complies with OECD definitions and methodology has not been undertaken at the time of drafting this report.

Timeliness

1480. The 2019 OECD Health Data Minimum Dataset Questionnaire was sent out to Costa Rica on February 7th, with an expected deadline of May 15th to return the updated data and metadata. Similarly, health accounts and health quality indicator questionnaires were sent to the Costa Rican authorities with the same expected deadlines.

Data transmission

1481. Data are transmitted via the OECD Health Data Minimum Dataset Questionnaire sent out to the MoH in Costa Rica.

Overall assessment

1482. Costa Rica does comply with OECD minimal requirements for health statistics. The OECD Health Data Minimum Dataset Questionnaire was sent out to Costa Rica in 2016 and the returned data and metadata were satisfactory and met the conditions set by OECD. Costa Rica has submitted the Joint Health accounts Questionnaire for the first time in 2018 and provided a further update in 2019. Costa Rica has proved its willingness to dedicate resources and time in order to meet the requirements set by OECD to a high standard.

1483. Costa Rica has also shown its readiness to participate in the more extended and complex OECD data collection efforts on health statistics. It has, for example, reported many of the key OECD's Health Care Quality and Outcome indicators over the past 10 years or so. This includes the primary care, acute care, mental health and cancer care indicators which are the most widely-used international benchmarks of health care quality and outcomes, and hence an important basis for assessing health system performance. A number of survey based (patient experiences) and more complex indicators (patient safety) still remain unreported at this time.

1484. The health sector has been deploying significant efforts to meet data requirements and fill the gaps in information. To this end, the MoH has instructed the CCSS, the major health services provider, to make concrete actions to collect and provide information that could be used to produce indicators related to the quality of services delivered.

1485. As an example of these actions, the CCSS has recently implemented an annual satisfaction survey for users of outpatient treatment and hospitalisation, regarding the quality of health services received from the CCSS. The survey is being applied by an external body and will provide important information to intervene those aspects in which needs of improvement are reflected and will allow sharing relevant information to facilitate decision making and international comparability.

1486. More recently, there has been more concerted efforts to further engage with the Secretariat with a view to complying more fully with the standard OECD data collections for health statistics.

1487. This Administration has been promoting the approval of the Bill of Law No. 9694 to strengthen the NSS. The implementation of the new Statistics Law will facilitate mechanisms to solve pending issues, such as fragmentation of information and the decentralization of data, allowing the generation of harmonized statistics according to OECD standards.

1488. Moreover, the MoH is participating, with the support of the Pan American Health Organization (PAHO/WHO), in a strategy to strengthen health information systems in order to improve its management and the interoperability of systems that contribute to the governance of health data.

14.5.2. OECD Social Expenditures database (SOCX)

1489. ELS collects data and produces internationally comparable indicators on social expenditure (SOCX) at programme level since 1980s, covering Public, Mandatory Private and Voluntary private social Expenditure classified by category i.e. Old Age, Survivors, Disability, Health, Family, Active labour Market policy programmes, Unemployment, Housing and other social policy areas.

Data sources

1490. Social Expenditure Data (SOCX) have been provided by the Ministry of Employment and Social Security (MTSS) and the Ministry of Human Development and Social Inclusion (IMAS) in coordination with the Ministry of Foreign Trade of Costa Rica (COMEX) and other social

institutions, such as Costa Rican Department of Social Security (CCSS), Ministry of Public Education (MEP), Ministry of Health, National Children's Trust (PANI), National Insurance Institute (INS), Ministry of Housing (MIVAH), among others.

Coverage

1491. Data provided were relatively complete for two years (i.e. 2014 and 2015) and in compliance with international standards and methodologies used for OECD member countries. However, the lack of historical data does not allow for analysis of trends in social expenditure overtime. Costa Rica has been implementing new information systems and databases to strength social policy design, monitoring and evaluation. To this end, during the past two years, the Single Registry of Target Population (SINIRUBE)[164] has expanded rapidly to deliver those needed results. SINIRUBE aims to provide up-to date information about the target population and their needs (services, assistance, subsidy or economic support) and the beneficiaries of social programmes. It is currently the most completed database of the social sector with more than 80% of the population nationwide and 20 incorporated institutions. It also has collected historical data that will allow analyse trends overtime.

Interpretability

1492. At the time of writing, the OECD expects receiving a Country Note with metadata on social expenditure.

Data transmission

1493. Data received in October 2016 were provided via a SOCX Excel questionnaire. Since then, Costa Rica did not provide updated data by response to the 2018 SOCX questionnaire. MTSS and IMAS in coordination with SINIRUBE, are deploying efforts to include SOCX criteria in the SINIRUBE´s information system. This new application will allow using SINIRURE´s data to generate the information requested by the SOCX questionnaire at any time. Costa Rica is aiming at including SOCX criteria into the SINIRUBE´s information system by December 2019.

Overall assessment

1494. Indicators on social expenditure (SOCX) provided by the Ministry of Employment and Social Security (MTSS), in coordination with the Ministry of Foreign Trade of Costa Rica (COMEX) comply with the minimum requirements for social expenditure statistics. Some progress still needs to be done. As reported by the Costa Rican Authority at the time of drafting the review, social expenditure data is not fully complete and does not allow for international comparability overtime. However under this new scenario, Costa Rica will be able to generate accurate information according to OECD standards.

1495. The following improvements are needed: addition of time series data at programme level at least since the early or mid-2000s in order to monitor trends in Social expenditure overtime and metadata information to allow for interpretability of the data. Follow up with MTSS in coordination with MdH have been taken and are still being dealt with in order to receive time

[164] For further information, please refer to https://www.sinirube.go.cr/ and Law N° 9137: "Creation of SINIRUBE"

http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=75585&nValor3=0&strTipM=TC

series data at programme level at least since the early or mid-2000s as well as complete metadata with information on the description of the programmes and sources.

1496. The national team (IMAS, MTSS and SIRIRUBE) is working to identify which programs have already historical data and which ones could be build up. The goal is to be able to gather historical data since 2005 for all social programmes registered in SOCX database by August 2019.

1497. The OECD Secretariat fully appreciate the ongoing work undertaken by the Costa Rican Authorities to improve SOCX Data quality and look forward to receiving the completed SOCX data and Country Note.

14.5.3. Net Social Expenditures (Net SOCX)

1498. At the time of writing, the capacity of Costa Rica to comply with minimum requirements for Net Social Expenditure statistics has not been evaluated, as Costa Rica needs to complete SOCX data in order to be able to provide Net SOCX.

14.5.4. OECD questionnaire on Affordable and Social Housing (QuASH)

1499. ELS has collected data and produced internationally comparable indicators on affordable and social housing since 2014, with three rounds of the OECD Questionnaire on Affordable and Social Housing (QuASH): 2014, 2016 and 2019. As part of the OECD Horizontal Project on Housing, the 2019 QuASH extended the previous rounds of the survey to include additional topics (e.g. housing governance and fiscal federalism, land use regulations, homelessness, housing transaction costs). Country responses to the QuASH support the development of the OECD Affordable Housing Database,[165] in addition to ongoing OECD research on affordable housing. Costa Rica participated for the first time in the QuASH in 2019 and submitted the survey on-time.

Data sources

1500. The Ministry of Housing and Human Settlements provided data on all 14 sections of the QuASH: housing supply and demand; overall housing policy framework; housing governance and fiscal federalism; land use regulation; homelessness; public support and regulations for homeowners (e.g. subsidies to households; mortgage support and regulations; tax relief; measures to finance housing regeneration); public support and regulations for tenants (e.g. in the private market rental and social (subsidised) housing sectors); cash benefits to households for rental and other housing costs; support to housing developers to construct affordable housing; and housing-related transaction costs.

Coverage

1501. Overall, Costa Rica provided relatively thorough information for all sections of the QuASH, as relevant. While the country responses to the QuASH are still being processed, a preliminary assessment suggests that the following could be areas for improvement in terms of data collection on housing:

- There are some gaps in data coverage, making it difficult to compare some housing trends over time. Data on housing supply and demand were provided for 2018 and other recent years (e.g. 2000, 2010, 2011, 2017), with some variation across years.

[165] www.oecd.org/social/affordable-housing-database.htm

- Some housing definitions appear to differ from those used in many OECD countries: including housing tenure classification (for which the Costa Rican authorities provided useful explanatory information) and homelessness.
- More granular data on homelessness, notably in terms of the composition of the homeless population, as well as the public response to homelessness (e.g. number of shelter spaces, accommodations for the homeless) would be welcome, as the data at first glance appear incomplete.
- Whilst a common gap in the QuASH among many OECD countries, additional information on the estimated amount of public resources dedicated to individual policy measures would be welcome, as this information was often incomplete.

Interpretability

1502. While only a preliminary assessment of Costa Rica's responses to the QuASH have been completed at the time of drafting this review, the majority of responses are easy to interpret, with useful explanations and definitions provided in some cases. The Secretariat will likely require further explanation on some housing data and policy measures that have been included in the survey.

Data transmission

1503. Costa Rica was invited to participate for the first time in the QuASH in 2019, and completed the online Questionnaire (via LimeSurvey) by the requested deadline of 30 May 2019.

Overall assessment

1504. Costa Rica's participation for the first time in the 2019 OECD QuASH was highly appreciated, with authorities responding to all relevant sections of the survey. Moving forward, a preliminary analysis of the survey responses suggest that a few elements of housing statistics could be strengthened:

- Provision of housing statistics at regular time intervals (e.g. 2000, 2010, 2018/latest available year) to enable analysis over time;
- A homeless definition that is more aligned with international practice, in addition to more granular data on homelessness, in terms of the composition of the homeless population, as well as the public response to homelessness (e.g. number of shelter spaces, accommodations for the homeless); and,
- Additional information on the estimated amount of public resources dedicated to individual policy measures.

1505. A more thorough assessment of the QuASH responses will be undertaken in the coming months, which may point to additional areas that could be strengthened.

14.5.5. Pensions at a Glance publications

1506. ELS collects data and produce publications covering public pension systems in OECD Members, Asia and Latin America and the Caribbean, with Costa Rica included in the later.

Data sources

1507. Pension data was provided for the last edition of the publication in coordination with the Inter-American Development Bank (IADB) by the Ministry of Employment and Social Security (MTSS) and the Ministry of Human Development and Social Inclusion (IMAS).

Coverage

1508. Data provided were complete and met all the requirements of the publication. However, there has been a lack of contact in recent months regarding the update of the country chapter.

Interpretability

1509. There were no problems in this area.

Data transmission

1510. Data was received for the 2014 publication edition but no further information has been forthcoming over the last year.

Overall assessment

1511. Public pension statistics provided by Costa Rica generally complies with the minimum OECD requirements but improvements could be made, namely regarding a timely update of the information requested, and perhaps by providing a list of more appropriate future contact points.

14.6. Energy Statistics

1512. The International Energy Agency (IEA) is an autonomous organisation, which among other roles is in charge of energy statistics.

1513. There are two types of energy data requirements: one for OECD Members and another one for IEA Members (all OECD Member economies, excluding Chile, Iceland, Israel, Latvia, Lithuania, and Slovenia).

- OECD Members' energy data requirements:
  - Annual data: (collecting Y-2 data) Oil, Coal, Natural Gas, Electricity and Heat, Renewables and Waste (Joint Annual Questionnaires IEA/Eurostat/UNECE),
  - Annual Energy Efficiency questionnaire
  - Annual Mini Questionnaires (collecting Y-1 data): Coal, Natural Gas, Electricity and Heat, Renewables and Waste
  - Quarterly data submissions: Energy Prices and Taxes
  - Quarterly data information: Coal production and trade (access to information without a questionnaire)
  - Monthly data submissions: Monthly Oil and Gas Questionnaire, The Joint Organisations Data Initiative (JODI) and Maxi JODI, JODI Gas, Gas Trade Flows (European countries), Electricity Questionnaire.
- IEA Members' energy data requirements:
  - Annual data including forecast: Standing Group on Long-term Cooperation Questionnaire (SLT) forecast,

- Energy technology RD&D budgets
- Monthly data: Crude oil import prices
- Emergency Questionnaire (QuE): Oil.

Data sources

1514. Data shared at the time of drafting is provided by the Ministry of Environment and Energy (MINAE) and the Costa Rican Institute of Electricity.

Coverage against OECD requirements

1515. At the time of writing, Costa Rica does not submit to the IEA any annual or quarterly fuel questionnaires. MINAE and the Costa Rican Institute of Electricity annually provide, on voluntary basis, basic energy statistics from their annual balance on energy, which includes some of the information included in the five Joint Annual Questionnaires described under the requirements above. Costa Rica being a Latin American Energy Organisation (OLADE) member economy, the annual energy balance follows the OLADE energy statistics manual's methodology and data requirements, which somewhat differ from those applied by the IEA. Both organisations are currently working to improve comparability.

1516. The country does not use natural gas therefore it will not have to fill in any monthly gas questionnaire. As far as oil is concerned, there is no refinery in Costa Rica anymore, so the data provided through the JODI oil submission to UNSD are fairly simple. JODI figures for Costa Rica include Stocks information for the main petroleum products. Completeness is not perfect as demand for most of the products is (much) higher than supply.

1517. Data on end-use prices for oil products are compiled by the IEA based on secondary sources.

1518. Data on energy efficiency indicators are not shared, although Costa Rica has worked in this area through the UN-ECLAC BIEE programme.

Interpretability

1519. There is no specific metadata document for energy statistics. As an OLADE member economy, Costa Rica uses the OLADE questionnaires/format to transmit energy data. While fairly different from the format used by the IEA, this format is adequately documented and enables understanding the methodology behind the data shared on energy balances at the time of drafting. Communication with Costa Rican authorities is another important source for better understanding the definitions and methodology.

Compliance with international standards and methodologies used in most OECD members

1520. As Costa Rica is a member of OLADE, the country follows for the data covered under their energy balance the OLADE energy statistics manual's methodology, which differs from the one used in OECD countries: international marine bunkers are not reported, accounting is different for hydro production, etc. Meanwhile, all energy organisations (IEA, UNSD, OLADE, APEC, Eurostat, AFREC…) are working to harmonize energy statistic's definitions and concepts.

Timeliness

1521. Costa Rica provides monthly oil data to the UNSD M-3 or M-4 data, instead of the M-2/M-1 data expected by JODI, and does not submit the other data required. Annual data are available in the OLADE balance format in March following the end of the reference year, so well ahead compared to OECD requirements (data request sent in October with deadline in February Y+2).

1522. Costa Rica is aware of the need to improve the timeliness on the submission of the data. The country is committed to undertake studies to determine the necessary actions to comply with the requested timeframes. These actions involve improving coordination and revise administrative procedures of the different agencies involved.

Data transmission

1523. Costa Rica provides energy balance in a spreadsheet by e-mail.

Overall assessment

1524. In their annual balance, Costa Rica only provides basic energy statistics, not the full details implied by OECD/IEA data requirements. For instance, IEA estimates electricity generation for biomass products since the country does not provide a split for electricity generated from biomass. There is no agreement on improvement of the data quality. Since the data collection is on voluntary base, the IEA does not have any mandate for it. Communication between the IEA and Costa Rica is satisfactory. While requests for data are always answered in a very timely manner, requests on data quality are answered on a more sporadic basis.

1525. The IEA's main concern for the monthly data is on the timeliness of the submissions, as Costa Rica provides to UNSD M-3 or M-4 data, instead of the M-2/M-1 data expected by the Joint Organisations Data Initiative (JODI). Completeness of monthly data could also be improved.

1526. Other areas of data collection within the OECD requirements are not active (i.e. quarterly energy prices; monthly data; quarterly coal; annual energy efficiency). At the time of writing, the IEA has not explored yet the capability of Costa Rica to meet the OECD requirements in terms of annual, quarterly and monthly data.

1527. Costa Rica understands the importance of improving the systematization and documentation of energy data and statistics based on the highest international standards. The country is fully committed on working on an action plan to carry out the studies to determine the needed actions to provide data on energy in accordance with the OECD requirements.

1528. Costa Rica is not yet a member of the IEA but the Ministry of Environment, Energy and Telecommunications (MINAE), and the Costa Rican Institute of Electricity provide OECD, on voluntary basis, with basic energy statistics from their annual balance on energy. Data coverage does not fully meet the OECD/IEA requirements. For instance, Costa Rica does not provide a split for electricity generated from biomass. Timeliness of monthly data could also be improved, as Costa Rica provides monthly M-3 or M-4 data while the Joint Organisations Data Initiative (JODI) requires M-2/M-1 data. At the time of writing, the IEA has not explored yet the capability of Costa Rica to meet the OECD requirements in terms of annual, quarterly and monthly data.

1529. Costa Rica understands the importance of improving the systematization and documentation of energy data and statistics based on the highest international standards and is fully committed on working on an action plan to carry out the studies to determine the needed actions to provide data on energy in accordance with the OECD requirements.

1530. Finally, Costa Rica is member of the Latin American Energy Organisation (OLADE) and IEA and OLADE are in the process of harmonising their standards in order to achieve data

comparability of energy statistics requested by both organisations. Once this process has been finalised, Costa Rica will determine the necessary actions and financial resources to comply with the new harmonized standard.

14.7. Environment Statistics

1531. The OECD Environment Directorate (ENV) regularly collects data covering six fundamental environmental areas (air and climate, inland waters, forest, wildlife, waste and environmental protection expenditure). Data on other topics are collected on an ad-hoc basis; data on environmentally-related tax revenue are compiled from the OECD Policy Instrument (PINE) database; data on land use and cover are derived from earth observation.[166] ENV also compiles the data needed to monitor progress towards green growth and calculates environmental and green growth indicators. The information is used to analyse environmental policies and supports country peer reviews.

Data sources

1532. The ***National Environmental Information System*** (SINIA), established in 2013,[167] constitutes the institutional platform for coordinating and integrating the management of environmental information at national level. It builds on a National Environmental Information Network (RENIA) that connects all thematic information systems[168] and data providers, including environmental and other government agencies, the statistical office, academics, non-profit institutions and local governments. The Framework for the Development of Environmental Statistics (FDES 2013) developed by UNSD is used to structure the information.

1533. The ***lead agency*** for environmental data is the Ministry of Environment and Energy (MINAE). MINAE co-ordinates with the National Institute for Statistics and Census (INEC) on environmental statistics, with the Central Bank (BCCR) on environmental accounting, and with the National Geographic Institute (IGN) on geo-referenced environmental data. The National Geo-Environmental Information Center (CENIGA), within MINAE, collects data from different sources, manages and co-ordinates information flows under the SINIA, prepares annual reports on the state of the environment, issued by the National Environmental Council, and maintains an Institutional Spatial Data Infrastructure (IDEI) with the IGN.

[166] Most data are collected from countries via the OECD questionnaire on the state of the environment (jointly with Eurostat for European countries and in close cooperation with UNSD and UNEP for other countries). Other data are derived from earth observation and other international sources. Data on environmentally-related tax revenue accounts will be collected as of 2019.

[167] Established by Executive Decree 37658. SINIA website: http://www.sinac.go.cr/ceniga/; link to environment statistics: http://ceniga.sinac.go.cr/statplanet/statplanet_ceniga.html; link to cartographic data and maps: http://ceniga.sinac.go.cr/visor/.

[168] Thematic information systems exist for example for environmental indicators and Sustainable Development Goals (SDG) indicators, for integrated water resources management (*National Information System for Integrated Water Resources Management* established in 2006 by Executive Decree 32868-MINAE, and funded with fees from water use concessions), and for climate change (*National Climate Change Metrics System* (SINAMECC); monitors mitigation and adaptation, maintains the national greenhouse gas inventory, and tracks climate finance; data and indicators from the SINAMECC are linked to the National Statistical System through the SINIA).

1534. CENIGA also maintains the ***Environmental Indicators System*** (SIA). The SIA is structured by environmental issue and an expanded pressure-state-response model, which is in line OECD good practice. Of an initial list of 147 environmental indicators, 49 were identified as key indicators for which data are readily available. These indicators were used in the elaboration of the country's first national State of the Environment Report (approved by the National Environmental Council in November 2017 and published in February 2018). The data and indicators are published in the Statistical Annex of the Report; they cover more than 1400 variables.

1535. The Ministry of National Planning and Economic Policy (MIDEPLAN) elaborated the ***Sustainable Development Indicators System*** (SIDES), including indicators on (i) conservation of biodiversity, land use, forestry resource; (ii) energy and; (iii) quality of life.[169] Indicator reports are published by the Institute of Statistics and Census.

1536. The BCCR is responsible for the development and updating of ***environmental accounts***; a dedicated Environmental Statistics Unit exists since the end of 2016 in the Economic Division of the Bank.

[169] http://www.mideplan.go.cr/?option=com_content&view=article&id=748.

Overview of institutional arrangements for environmental information in Costa Rica

	Lead Agency	Other Agencies involved
Environmental data and statistics	Ministry of Environment and Energy (MINAE)	INEC Ministry of Health Ministry of Agriculture and Livestock National Network of Environmental Information (RENIA) Academia NGO's
Environmental accounting	BCCR	Ministry of Environment and Energy Ministry of Finance Ministry of National Planning and Economic Policy INEC
Environmental indicators	Ministry of Environment and Energy (MINAE)	INEC Ministry of Health Ministry of Agriculture and Livestock National Network of Environmental Information (RENIA) Academia NGO's
Sustainable development & green growth indicators	Ministry of National Planning and Economic Policy	INEC Ministry of Health Ministry of Agriculture and Livestock National Network of Environmental Information (RENIA) Academia NGO's
Environmental reporting & assessment	Environmental Presidential Council Ministry of Environment and Energy (MINAE)	INEC Ministry of Health Ministry of Agriculture and Livestock National Network of Environmental Information (RENIA) Academia NGOs

Coverage against OECD data requirements

Overview of environment statistics

1537. Since 2015, Costa Rica participates actively in the OECD data collection and quality assurance process that reveals a relatively good coverage of topics. The data provided are accompanied with fairly detailed metadata. The country also reports environmental data to other international organisations, including under the framework of international agreements.[170] The following observations can be made:

- Data on greenhouse gas (GHG) emissions are produced as part of the national GHG emission inventory. The data cover the years 2005, 2010 and 2012. Data on air pollutant emissions are partial. They only cover recent years for SOx, NOx and PM10 emissions from combustion processes. Efforts are underway by the National Meteorological Institute of MINAE to produce GHG emission inventories for longer periods: data for 1990 to 2015

[170] Including the United National Environmental Programme, the United Nations Framework Convention on Climate Change, the Stockholm Convention on Persistent Organic Compounds, the Montreal Protocol on Substances that Deplete the Ozone Layer, the Basel Convention on the Control of the Transboundary Movements of Hazardous Wastes, and the Convention on Biological Diversity.

will be available by December 2019; updates for the years 2016 and 2017 will be available by 2021.

- Data on *waste* remain partial; they mainly cover municipal waste (generation and treatment for 2010-17). There is limited data on total waste generated by sector and partial data on the recycling of selected materials (e.g. paper and cardboard; plastic, metal, tetrabrik and glass packaging).

  Efforts are underway by MINAE and the Ministry of Health to produce a comprehensive set of annual data on waste, and an on-line Information System on Integrated Waste Management (Sistema Nacional de Información sobre Gestión Integral de Residuos - SINIGIR) is being implemented. Preliminary indicators will be available by December 2019. Once fully operational, the System will provide data on total waste generated by sector (using industrial codes), as well as more detailed sub-indicators.

  Data on *hazardous waste* reported to the OECD only cover the year 2017 and total amounts exported and imported. Further details are available in Costa Rica's on-line registration system for Hazardous Waste Management (Sistema di gestión de residuos peligrosos - SIGREP). The system includes information on movements of hazardous waste from 2013 to 2018, on waste generators and handlers, and on the amounts generated, collected, recovered and processed.

- Data on *water* cover most priority topics, for all years since 2001 or 2008. They cover water resources, abstractions and supply; and sewage treatment connection rates. Some data are available on waste water discharges. Data broken down by industry are available at an aggregate level.

Environmental accounting and economic information on the environment

1538. A system for Natural Capital Accounting (NCA) in line with the System of Environmental-Economic Accounting (SEEA) has been established and is integrated into the SINIA. Work on water and forest accounts started in 2014, work on energy accounts in 2015. First results were released in May 2016. The accounts are updated annually.

1539. Current efforts aim at further improving the accounts and at developing new accounts. An updated environmental protection expenditure account (EPEA) will be available by 2020 with information on the Central Government and the public sector. Updated ecosystem services accounts (ESA) will be available end of 2019, including a new account on carbon storage.

1540. Work on material flow accounts was initiated in 2017 by the BCCR in co-operation with the Central Bureau of Statistics of the Netherlands. To fully implement the Recommendation of the OECD Council on Material Flows and Resource Productivity, an Action Plan until 2020 was developed.

1541. Costa Rica participated in the pilot testing of environmentally-related tax revenue accounts in 2018 (OECD guidelines based on Eurostat methodology), and will participate in the 2019 data collection on environmental protection expenditure and on environmentally-related tax revenue accounts.

Timeliness

1542. Except for data on greenhouse and gas emissions, the timeliness is similar as for other countries, i.e. there is 2 to 3 year lag between the most recent year covered and year the data are transmitted to the OECD.

Data transmission

1543. Data are provided via an Excel questionnaire and national websites are consulted to complement when needed.

Overall assessment

1544. The OECD Environment Directorate (ENV) regularly collects data covering six fundamental environmental areas (air and climate, inland waters, forest, wildlife, waste, and environmental protection expenditure). The main provider for environmental data for Costa Rica is the Ministry of Environment and Energy (MINAE). MINAE co-ordinates environmental statistics with INEC, environmental accounts with BCCR, and geo-referenced environmental data with the National Geographic Institute (IGN). The National Geo-Environmental Information Centre (CENIGA), within MINAE, collects data from different sources, manages and co-ordinates information flows under the National Environmental Information System (SINIA), prepares annual reports on the state of the environment, issued by the National Environmental Council, and maintains an Institutional Spatial Data Infrastructure (IDEI) with the IGN.

1545. Quality and management of environmental information have significantly improved with the well-designed SINIA and Costa Rica has progressed with the development of environmental accounts and indicators and related publications. It has been participating in regular OECD data collection and in pilot work on the establishment of environmentally related tax revenue accounts and will participate in the 2019 data collection on environmental protection expenditure and on environmentally-related tax revenue accounts. Efforts remaining to be made to further consolidate the SINIA in accordance with the NSS, and to ensure continuity in important areas, MINAE is developing a set of standards for documenting, classifying, and publishing environmental data within the SINIA, and ensuring coherence among statistics.

1546. A system for Natural Capital Accounting in line with the System of Environmental-Economic Accounting (SEEA) has been established and integrated into the SINIA. Work on water and forest accounts started in 2014, work on energy accounts in 2015, and the accounts are updated annually since their first release in May 2016. Current efforts aim at further improving existing accounts and at developing new ones. To this end, an updated environmental protection expenditure account will be available by 2020, with information on the Central Government and the public sector, and updated ecosystem services accounts will be available in end 2019, including a new account on carbon storage. In 2017, the BCCR, in co-operation with the Central Bureau of Statistics of the Netherlands, initiated work on material flow accounts. An Action Plan until 2020 was developed to fully implement the Recommendation of the OECD Council on Material Flows and Resource Productivity.

1547. In terms of gaps to be filled, priorities include data on waste generation, recycling and treatment (beyond municipal waste); data on air and GHG emissions; and more generally environmental data broken down by sector and by industry. Once fully established, data from the various environmental accounts could be further integrated and combined to inform policy development and analysis.

1548. Taking into account the Action Plan developed by MINAE to fully implement the OECD Council Recommendations concerning environmental information, indicators and accounts, and the OECD Council recommendations related to material flows and resource productivity, Costa Rica is willing and able to fulfil the requirements in these recommendations. As the Plan foresees improvements in the SINIA, MINAE is being upgrading the online platform to ease access to data and ensure user-friendly data dissemination of statistics and geographical information, and

elaborating a communication strategy to promote awareness and use of available environmental information.

1549. Finally, Costa Rica plans to develop by 2023 a pollutant release and transfers register for the business sector, i.e. a publicly accessible database or inventory of chemicals or pollutants released to air, water and soil and transferred off-site for treatment.

14.8. Fisheries Statistics

1550. The OECD Trade and Agriculture Directorate (TAD) collects fisheries statistics for inclusion into the Fisheries and Aquaculture database comprising the following datasets:

- Marine landings
- Aquaculture production
- Inland fisheries
- Employment in fisheries and aquaculture
- Fishing fleet
- International trade of fisheries products
- Fisheries Support Estimate (FSE)
- Indicators of best policies and practices against Illegal, Unreported and Unregulated (IUU) fishing
- Targets and threshold indicator

Data sources

1551. Employment in fisheries comes from the ECE-INEC that is the official source of employment and unemployment statistics.

1552. While INEC compiles statistics on employment in the fishing sector, INCOPESCA has started a process to develop, jointly with the School of Statistics of the University of Costa Rica, the first National Registry of Fishing and Aquaculture. It will be implemented for the period 2019-2021 and will allow to have accurate data regarding the situation of the employment in this sector.

1553. External sources are used for International trade of fisheries products (sourced from UN COMTRADE) and Aquaculture production (sourced from FAO FishStatJ).

1554. Indicators of best policies and practices against IUU fishing and the targets and threshold indicator, which provides information on the status of stocks with respect with quantitative objectives for stocks, have not been collected at the time of writing but will be collected for the first time by end 2019. INCOPESCA, as well as the Ministry of Agriculture and Livestock (MAG) are likely to be the sources of such information.

1555. At the time of writing, INCOPESCA is promoting a tender to contract for a period of five months, document entry services to support the administrative management to update the landing information of fishery products at the national level for the years 2017, 2018 and first quarter of 2019 by entering the technical information of fishing nature, included in the sales invoice documents, capture reports and fishery landings inspection forms of the national fishing fleet, with an approximate of 26,000 primary documents.

Coverage

1556. No serious gaps have been identified in data coverage even if some improvement are possible:

- Fleet data are only available from the year 2003, while OECD requires time series starting from 1995.
- Employment time series are available from the year 1995, which represents a good time coverage. The coverage of the gender and the working status (part time, full time) dimensions is excellent. Series reporting occupation in the fishing sector are not available in a disaggregated form (Inland waters, Marine coastal, Marine deep-sea), but this is not uncommon also among OECD Members.
- At the time of writing, marine landings data provided to the OECD are available from the year 2000 in values and quantities; only National landings in Domestic Ports (NLDP) is reported.
- FSE data are available from the year 2004, representing a good time coverage compared to most of the OECD Members. The data coverage is also good for Fuel Tax Concessions, Management expenditures and Enforcement expenditures which represent really important and politically sensitive FSE categories. The labels (that describe the programmes characteristics) are also well covered.
- Inland fisheries data are not available, but unfortunately this is an isolated case; several OECD members being unable to provide this set of data, or only partially.

Interpretability

1557. Metadata are always available, and provide useful and interesting explanations of the data.

Compliance with international standards and methodologies used in most OECD countries

1558. Data provided complies with international standard and methodologies, or with OECD requirements.

Timeliness

1559. Data are timely provided.

Data transmission

1560. Data are provided by Excel questionnaires.

Overall assessment

1561. Costa Rica complies with OECD minimal requirements for fisheries statistics, no serious gap in data and metadata availability having been identified.

14.9. Foreign Direct Investment (FDI) Statistics

1562. The Working Group on International Investment Statistics (WGIIS) was mandated to assess the position of Costa Rica on the Recommendation of the Council on the OECD's Benchmark Definition of Foreign Direct Investment, 4th edition (BMD4).

1563. The WGIIS was asked to evaluate Costa Rica's FDI statistics against the recommendations in BMD4 and to assess Costa Rica's willingness to report data on FDI statistics in accordance with the timetable and template agreed by Members. As part of this review, Costa Rica agreed to submit a response to the Survey of Methodological Standards for Direct Investment (SIMSDI) for review by the WGIIS as well as data according to the approved reporting templates.

1564. Costa Rica submitted its response to the SIMSDI and data according to the approved reporting templates on 15 January 2016. The WGIIS Secretariat prepared a report examining Costa Rica's position under BMD4 and the current reporting requirements.[171] The WGIIS considered the report by the Secretariat, Costa Rica's response to the SIMSDI, and a presentation by Costa Rica in closed session on 22 March 2016. Following the review, the WGIIS requested that Costa Rica revise its response to the SIMSDI, provide additional clarifications on its system for compiling FDI statistics, and undergo a second review.

1565. On 13 January 2017, Costa Rica submitted its revised response to the SIMSDI as well as new and revised data according to the approved reporting templates. The WGIIS Secretariat revised its report based on the new information received.[172] The WGIIS considered the revised report by the Secretariat, the revised response to the SIMSDI, and a presentation by Costa Rica in closed session on 21 March 2017. After the meeting, the Chair of the WGIIS sent a letter thanking the Costa Rican delegation for their presentation at the meeting and willingness to answer the questions posed to them. The letter asked the Costa Rican delegation to submit a final response to the SIMSDI to reflect the clarifications discussed at the meeting and to confirm their commitment to reporting FDI statistics to the OECD in accordance with the timelines and templates approved by the WGIIS.

Data sources

1566. The BCCR is the sole agency responsible for compiling and disseminating FDI statistics in Costa Rica. The primary data sources are statistical surveys and administrative data. Costa Rica uses quarterly surveys to compile FDI statistics. Surveys of firms in special regimes and financial firms as well as from the financial sector are census surveys while the one for all other firms is a stratified sample survey on which large firms are self-represented and the rest on a random sample. The sample survey is expanded based on revenue data. A business register is used in conducting the survey. The administrative records used include compulsory reports for free zones and annual reports on inward processing collected by the Export Promotion Agency, PROCOMER. Additional data sources include the Economic Study conducted jointly with the MdH; administrative reports from the Land Registry, the Costa Rican Tourism Board, and the Costa Rican Investment Promotion Agency; and, for financial institutions, information is provided by the superintendence of the financial system. Press reports and reports from the stock exchange are also used. Bilateral data are not used as a regular data source. . For the definitive annual data, the information is complemented with the Economic Study of the national accounts. During 2018, the BCCR conducted for the first time a census on FDI companies in conjunction with the economic census used for the new base year of the national accounts. This census will be used as a benchmark for revised data and for the future selection of samples for the quarterly surveys that collect FDI information and data expansions.

1567. There is a legal requirement for agencies and offices of the state as well as autonomous institutions to assist the BCCR in achieving its statistical objectives. As a result, the BCCR has

[171]DAF/INV/STAT/ACS(2016)2

[172]DAF/INV/STAT/ACS(2016)2/REV1

established reporting arrangements with other institutions to provide information necessary for the compilation of FDI statistics.

Coverage

1568. Costa Rica publishes quarterly and annual FDI statistics according to the guidance in the IMF's *Balance of Payments and International Investment Position Manual*, 6th edition and BMD4.

1569. Costa Rica applies the ten percent of voting power criterion to define direct investment and partially implements the Framework for Direct Investment Relationships to identify all of the entities relevant to FDI. Earnings are partially adjusted to the Current Operating Performance Concept. These adjustments include for realised capital gains and losses and realised exchange rate gains and losses but not for unrealised capital gains and losses, write-offs, and unrealised exchange rate gains and losses. Costa Rica includes transactions between fellow enterprises in its FDI statistics and records them according to the directional principle based on the residency of the ultimate controlling parent in its detailed statistics by partner country and by industry. Equity transactions between affiliated financial intermediaries are included in FDI statistics, but debt transactions are not.

Timeliness

1570. Quarterly data are released three months after the end of the reference period. Every quarter, the data from the previous quarter are revised. Every June, revisions are made to the four quarters of the previous year, at which time The Working Group on International Investment Statistics (WGIIS) was mandated to assess the position of Costa Rica on the Recommendation of the Council on the OECD Benchmark Definition of Foreign Direct Investment, 4th edition (BMD4).

Overall assessment

1571. The BCCR is the sole agency responsible for compiling and disseminating FDI statistics in Costa Rica. Costa Rica has accepted the OECD recommendations in BMD4 and indicated that it has implemented the recommendations in its FDI statistics. The BCCR has revised its FDI statistics back to 2011 to incorporate the changes in BMD4 and has confirmed its commitment to report FDI statistics to the OECD in accordance with the timeline and templates approved by the WGIIS.

1572. In 2018, the BCCR conducted for the first time a census on FDI companies in conjunction with the economic census used for the new base year of the national accounts. This census will provide valuable information and will be used as a benchmark for revised data and for the future selection of samples for the quarterly surveys that collect FDI information and data expansions.

14.10. International Migration Statistics

1573. The ELS International Migration Division work on migration and integration is usually based on administrative sources (permit statistics, acquisitions of citizenship, population registers), censuses (foreign and foreign-born populations and their integration), labour force and households surveys (to measure integration), and UNHCR statistics (asylum seekers).

1574. Statistics on migration and integration in Costa Rica were published in:

- OAS/OECD (2017) *International Migration in the Americas 2017* (also in previous editions: 2011, 2013, 2015)*;*

- OECD (2017) *Reviews of Labour Market and Social Policies: Costa Rica*;
- OECD (2018) *Settling In 2018, Indicators of Immigrant Integration*.

Data sources

1575. Data are collected from the following national sources of Costa Rica:

- Costa Rican Directorate General of Immigration and Foreignness Services (DGME): permit statistics;
- National Population Censuses 1973, 1984, 2000, 2011;
- Supreme Elections Tribunal: acquisitions of citizenship;
- 2015 ENAHO survey: labour market outcomes of the foreign-born.

1576. Data are also collected from following other sources:

- United Nations Department of Economic and Social Affairs (UNDESA) World Population prospects 2015: characteristics of the foreign-born population and of the households with a foreign-born head;
- UN Refugee Agency (UNHCR) statistics: asylum seekers;
- *OECD International Migration Database*: OECD Members national permit statistics; outflows of migrants from Costa Rica to OECD Members;
- *Database on immigrants in OECD countries and non-OECD countries* (DIOC-E): Population born in Costa Rica and living abroad.

Coverage against OECD data requirements

- Permit statistics:
  - the data offer a breakdown by citizenship and gender;
  - the distinction by category of entry (reason to migrate) was identified for only three quarters of the permanent residence titles delivered. In September 2017, the DGME changed the "*Entry and Exit Card*" procedure, requirement included in Law 8764. This modification was implemented to avoid travellers to fill out forms and instead, the information is provided orally to the Migration Officer. This change allowed the automation of information and reduced travel motives in categories according to the requirements of the country and its regulations. However, this improvement relates to the "Entry and Exit Card" but not to the permanent residence titles (that are often delivered after entering the country and often after a short or medium stay).
- Foreign-born population: Population Censuses include information on the country of birth.
- Acquisitions of citizenship: no statistics for the years 2012.
- ENAHO survey includes information on the country of birth.

Interpretability

1577. Metadata appropriately accompany the datasets available.

Compliance with international standards and methodologies used in most OECD Member countries

1578. The standard distinction by category of entry that is usually done in the OECD International Migration Database is not possible with the data currently available. The information supplied by the authorities on permanent residence does not allow distinguishing between family migrants who have the right to permanent residence, labour migrants who have been in the country for at least three consecutive years and those who receive a special access to permanent residence. Some distinction is possible for temporary residence, especially in the last two years, when the unknown category was significantly reduced.

1579. The determination of the migratory categories is reserved by law. Costa Rica has a variety of permanency categories that respond and take into account the national needs and regional characteristics of the country within the national and international context.

1580. According to Article No. 68 of the General Migration Law (No. 8764, of August 19, 2009), there is an exception that allows a non-resident to change its migratory category while he is residing in the country. Unfortunately, this exception has become the rule, resulting in a difficulty to identify non-resident migratory entry categories, given that most of the people enter the country under the subcategory of "Tourism". By category of 'entry' the OECD means the category of acceptance as a permanent migrant. For instance, a student who enters Costa Rica under a temporary permit for studies and gets an indefinitely renewable permit for work two years later will be counted twice: as a temporary migrant in the year n (under the category of entry 'student') and as a permanent migrant in the year n+2 (under the category of entry 'labour migration').

1581. To this end, there is no entry records of relatives of residents or migrant workers. However, it is possible for the DGME to provide statistics on the different permanent categories and subcategories of migration upon request.

Timeliness

1582. Costa Rica has not set up a permanent population census system that would allow for an annual measurement of the stock of foreign-born, but this is not an OECD requirement.

Data transmission

1583. Permit statistics are collected directly from the DGME or via the Costa-Rican correspondent to the *Continuous Reporting System on International Migration in the Americas* [SICREMI]);

Overall assessment

1584. ELS is responsible for OECD international migration statistics. The International Migration Division work on migration and integration is usually based on administrative sources (permit statistics, acquisitions of citizenship, population registers), censuses (foreign and foreign-born populations and their integration), labour force and households surveys (to measure integration), and UNHCR statistics (asylum seekers).

1585. Detailed data are required to compare Costa Rica with OECD Members on the basis of the composition of migration flows by category of entry. It is unknown at this stage if the new Costa Rican *Continuous Reporting System on International Migration in the Americas* (SIIEM) will fill this gap. While not yet implemented due to a lack of economic resources, the SIIEM remains as one of the institutional priorities. It aims to improve the provision of services and strengthen the migration control, through the digitalization of files and therefore the availability

of information. At the time of writing, it is expected that a source of financing this project will be identified in the near future.

1586. The Costa Rican Directorate General of Immigration and Foreignness Services (DGME) has automated resident information, disaggregated by immigration status, nationality, gender and can generate data by age. In accordance to the General Migration Law No. 8764, three migratory categories are included: (i) Permanent Resident, (ii) Temporary Resident, and (iii) Special Category, each divided into sub-categories. Costa Rica stated that it is possible to generate tables for each category and its subsequent migratory sub-categories.

14.11. Pension and Insurance Statistics

14.11.1. Pensions statistics

1587. The OECD Working Party on Private Pensions (WPPP) and its Task Force on Pension Statistics (TFPS) launched the Global Pension Statistics project in 2002. This project consists in an annual statistical exercise designed to collect comparable statistics and indicators on funded pension systems. Statistics cover the main features of funded pension systems, such as the amount of assets accumulated in pension plans, the investment performance of these plans, contributions paid by plan members and their employers into these plans and benefits that plan members receive at retirement, as well as the number of plan members. Such information is requested by type of pension plans and by financing vehicles, as defined in the taxonomy approved by the OECD WPPP. This framework facilitates cross-country comparisons of funded retirement systems worldwide. The cooperation with the International Organisation of Pension Supervisors (IOPS) and more recently with the World Bank gives a global dimension to the statistical exercise and helps to get a broader picture of private pensions worldwide.

1588. As part of the OECD Global Pension Statistics exercise, a data request is sent every year in April. This request is sent to WPPP Delegates, TFPS Delegates, IOPS Members and since 2016 to World Bank Members. Data providers, who are mainly pension supervisors, are invited to complete and return the three following documents within six weeks:

- an Excel questionnaire which should include data for the previous year;
- a qualitative Word questionnaire with a set of questions on the main developments in their private pension sector; and,
- a description of the funded pension system that participants have to provide the first year they join the exercise and to review the following years for this description to remain up-to-date.

1589. Costa Rica is an IOPS member and has been involved in the Global Pension Statistics exercise for more than ten years.

Data sources

1590. Costa Rica's Superintendence of Pensions (SUPEN) is the data provider and has participated in a regular manner in this statistical exercise.

Coverage

1591. The OECD database on pensions includes data on pension assets going back to 2001 for Costa Rica. The database also includes detailed statistics on the allocation of assets in pension plans, investment performance of these plans, contributions paid into the plans and benefits that individuals receive at retirement, as well as the number of plan members from 2008 onwards.

Costa Rica therefore meets the requirement from the WPPP that accessing countries provide statistical information on pensions for the last five years at least.[173]

1592. Pension statistics that the pension supervisor has submitted since 2016 cover almost the whole funded pension system in Costa Rica: the mandatory supplementary pension scheme (ROP) which all workers have to join, voluntary pension schemes in which individuals can make additional voluntary contributions for their retirement, and special occupational schemes which only cover workers from some specific public institutions (e.g. state-owned banks, the social security agency, the national power company, the national tourism agency). The description of the Costa Rican pension system that OECD Secretariat drew up also mentioned the existence of alternative pension schemes.[174] These alternative schemes cover workers from specific sectors (e.g. teachers, employees of judicial authorities) and substitute the main basic pay-as-you go pension system (IVM) for these workers. These alternative pension schemes may fall in the scope of the Global Pension Statistics exercise which targets all funded pension plans. Further investigation will be needed to examine if and how these plans could be included in the OECD database. Care will be also given to data submitted before 2016 to clarify the coverage of these statistics and double check if they were covering both the ROP and voluntary pension schemes or only the ROP. The Costa Rican Authorities are committed in providing statistics of the highest possible quality and will submit the OECD/IOPS/WB Pension Statistics Electronic Questionnaire on time. As a result of Costa Rica's accession process, the statistics from 2016 have provided positive results in generating data for policy decisions making.

Interpretability

1593. While the Costa Rican pension supervisor provides assistance to clarify and ensure the quality of pension statistics that the OECD gathers, a few issues on past data submitted before 2016 (on the number of plan members, on benefits paid to retirees and on the liabilities of pension plans) are still pending. However, data will be provided to the Secretariat after OECD/IOPS/WB Pension Statistics Electronic Questionnaire is submitted. The deadline for the questionnaire is 6 June 2019.

1594. Costa Rica also regularly answers the questions in the qualitative questionnaire and explains the trends in the private pension sector. These answers help to identify potential data issues during the annual data management routine, and to better interpret and analyse Costa Rican data. The latest description of the funded pension system in Costa that was submitted in 2018 included all the types of plans that fall in the scope of the OECD Global Pension Statistics exercise. Costa Rica also includes some additional metadata in the Excel questionnaire with pension statistics, further describing the contents of some variables.

Compliance with international standards and methodologies used in most OECD countries

1595. The most up-to-date description of the funded pension system of Costa Rica follows and uses the taxonomy *Private Pensions: OECD Classification and Glossary*[175] approved by WPPP Delegates and published in 2005. Costa Rica reported their latest pension statistics for all the types

[173]DAF/AS/WD(2013)27

[174]DAF/AS/PEN/ACS(2016)2

[175]http://www.oecd.org/finance/private-pensions/38356329.pdf

of pension plans that fall in the scope of the OECD Global Pension Statistics exercise as appropriate.

Timeliness

1596. Costa Rica returns the requested material on time, allowing the inclusion of Costa Rican pension statistics in OECD publications such as the annual newsletter *Pension Markets in Focus*.[176] Costa Rica also participates in all related statistical requests on pension issues (e.g. on investment regulations applying to pension funds) and ad-hoc requests on specific topics, although sometimes a bit behind schedule in 2016 and 2017.

Overall assessment

1597. The OECD Working Party on Private Pensions (WPPP) and its Task Force on Pension Statistics (TFPS) launched the Global Pension Statistics project in 2002. This project consists in an annual statistical exercise designed to collect comparable statistics and indicators on funded pension systems. In Costa Rica, the Superintendence of Pensions (SUPEN) provides data on a regular basis.

1598. Overall, Costa Rica complies with minimal requirements for pension statistics collected under the aegis of the WPPP. Statistics from 2016 onward have been collected using OECD requirements and are comparable to those of other countries. The cooperation between the OECD and the Costa Rican authorities during the OECD accession review of the Costa Rican funded pension system has helped to improve the quality of the data submission of Costa Rican authorities to the OECD Global Pension Statistics exercise, with almost no follow-up needed on the annually submitted data. The continued positive and constructive communication with the Costa Rican pension supervisor will allow further enhancing the quality of Costa Rican pension statistics in the OECD database by solving the last pending issues on past data.

14.11.2. Insurance statistics

1599. The OECD has been collecting insurance statistics since the early 1980s. These data cover major aspects of the insurance industry, such as premiums written, claims payments, gross operating expenses, commissions and asset allocation of insurance companies. All this information is collected from all the participating countries by type of insurance undertakings: life insurance companies (dealing only with life insurance business), non-life insurance companies (dealing only with non-life insurance business) and composite companies which offer both life and non-life insurance products. Key balance sheet and income statement items have also been collected recently for both direct insurance and reinsurance sectors. This data collection exercise on insurance is called the OECD Global Insurance Statistics, and is carried out every year under the aegis of the Insurance and Private Pensions Committee (IPPC). This statistical exercise has achieved a broader coverage through the cooperation with the Association of Latin American Insurance Supervisors (ASSAL) since 2013 and through the participation of additional non-OECD countries from Asia mainly.

1600. The OECD Secretariat usually sends its annual request for insurance statistics in April. This request is sent to Delegates to the IPPC and to its Task Force on Insurance Statistics (TFIS), to ASSAL Members (through the ASSAL Secretariat) and to other jurisdictions (mainly from Asia) who have accepted to join the statistical exercise. All participants, who are mainly insurance

[176] http://www.oecd.org/daf/pensions/pensionmarkets

supervisors, statistical offices and ministries, are invited to complete and return the three following documents within six weeks:

- an Excel questionnaire which should include data for the previous year;
- a qualitative Word questionnaire with a set of questions on the main developments in the insurance sector; and,
- a compilation of methodological notes related to the data for their country that participants have to review and update as necessary.

Data sources

1601. Costa Rica joined this statistical exercise in 2013. The General Insurance Superintendence (SUGESE) is the data provider for insurance statistics. SUGESE has always returned the Excel questionnaire and the Word qualitative questionnaire every year since 2013.

Coverage

1602. Costa Rica provided detailed statistics in the Excel questionnaire for the main aspects of the insurance activities (e.g. premiums, claims payments, gross operating expenses, commissions, and asset allocation of insurance companies). Costa Rica has also replied in a detailed and efficient manner to OECD requests to clarify and correct the data, guaranteeing the consistency of data over time. Additionally, Costa Rica provided the OECD with insurance statistics dating back to 2010 in the Excel questionnaire template. Costa Rica therefore complies with the IPPC requirement for accessing countries to provide more than five years of data.[177]

Interpretability

1603. Costa Rica has always given detailed answers to all the questions in the Word qualitative questionnaire. These answers enabled a better understanding and analysis of the Costa Rican insurance statistics. Few metadata for Costa Rica were collected in the Excel questionnaire, suggesting that the provided data do not deviate from OECD definitions.

Compliance with international standards and methodologies used in most OECD countries

1604. Costa Rica was able to provide data by type of insurance companies. Accident and health insurance is classified among non-life insurance activities in the OECD classification. Insurance companies providing life insurance products and accident and health insurance would therefore be considered as composite companies. Most of the insurance companies in Costa Rica have both life and non-life insurance activities and are therefore classified as composite companies. The Excel questionnaire asks for the breakdown of almost all the variables related to composite companies between the life branch of these companies and the non-life branch. Costa Rica was able to provide such breakdown for premiums and for claims, and since 2015 for gross operating expenses and commissions too. Costa Rica does not have however the asset allocation of composite companies specifically for the life activities and for the non-life activities of these companies separately. Costa Rica cannot distinguish the gross operating expenses and commissions associated with the direct business and reinsurance activities of insurance companies.

[177]DAF/AS/WD(2013)27

Timeliness

1605. Costa Rica's statistical input has always arrived early enough to be included in the annual report Global Insurance Market Trends. The input has always been provided in the expected format via email.

Overall assessment

1606. Overall, Costa Rica fully complies with minimal requirements for insurance statistics. Since 2013, the General Insurance Superintendence (SUGESE) of Costa Rica provides information requested through the annual OECD Global Insurance Statistics data collection carried out under the aegis of the Insurance and Private Pensions Committee (IPPC). . The involvement of the Costa Rican Delegation in the work of the OECD on insurance statistics, and the participation of Costa Rica to the last Task Force on Insurance Statistics (TFIS) meeting show the importance given by Costa Rica to the quality of the insurance statistics that are delivered to the OECD.

1607. At the time of writing, Costa Rica does not have an action plan to complete existing gaps, in particular those related to distinguish the gross operating expenses and commissions associated with the direct business and reinsurance activities of insurance companies, mainly because there is only one entity authorized as reinsurer (the state-owned insurer, National Insurance Institute-INS), reinsurance activity representing only 0.4% of its business. Nor is there a specific plan to separate the asset allocation of composite companies specifically for the life activities and for the non-life activities of these companies, but it is possible to obtain financial income and expense by each insurance branch from technical accounts. Costa Rica plans a reform of the insurers' accounting for 2022. By the time, IFRS 17 will enter into force and it will be possible to assess the separation of the set allocation of composite companies as required.

14.12. Public Governance Statistics

1608. The OECD Public Governance and Territorial Development Directorate (GOV) presents internationally comparable set of data with the aim to help decision makers and the public analyse and benchmark government performance, to track domestic and international developments over time and to provide evidence to their public policy making. The OECD Government at a Glance publication includes statistical indicators on: public finance and economics; public employment and compensation; government institutions; budget practices and procedures; human resource management; public sector integrity; regulatory governance; public procurement; open government; public sector innovation and digital government; risk management and communication; core government results and service citizens.

1609. Data directly produced and managed by the GOV Directorate typically relates to government policies and practices with respect to integrity, e-government, open government and public institutions; as well as public management practices in budgeting, human resources management, procurement and regulatory management.

1610. Data for the GOV Directorate are collected by surveys collecting primarily qualitative but also quantitative data. Every survey is managed by the different divisions within the GOV Directorate. The surveys are initiated and developed with the active co-operation of the various networks and working groups of the Public Governance Committee and the Regulatory Governance Committee. All of them have membership from all OECD member countries which are represented by a responsible institutional unit at the national country level (usually Ministries of Public Administration and Finance, or equivalent).

1611. The main domains (subject areas) are the following:

- Survey on Public Sector Integrity
- Survey on Public Procurement
- Regulatory Management Systems Survey
- Survey on Public Sector Composition
- Survey of Compensation of Employees in Central/Federal Governments
- Survey on Strategic Human Resource Management
- Survey on Performance budgeting
- Survey on Infrastructure Governance
- Survey on Accounting and Accruals
- Survey of Gender Budgeting
- Survey on Open Government
- Open Government Data Survey
- Survey on Advisory Systems and Bodies
- Survey on Innovation
- Survey on the Governance of Critical Risks
- Survey on Risk Communication
- Survey on planning and co-ordinating the implementation of the Sustainable Development Goals (SDGs)

Data sources

1612. Data sources include the following national authorities of Costa Rica:

- Attorney's General Office Division on Public Ethics, General Comptroller of the Republic (for Public Sector Integrity)
- Ministry of Foreign Trade (for Public Procurement)
- Ministry of Economy, Industry and Trade ((MEIC) for Regulatory Management Systems)
- Ministry of Planning and Economic Policy ((MIDEPLAN) for Public Sector Composition, Compensation of Employees, Human Resource Management, planning and co-ordinating the implementation of the SDGs)
- Ministry of the Presidency (for Open Government)
- Costa Rican National Commission for Risk Prevention and Emergency Assistance ((CNE) for Governance of Critical Risks).

Coverage

1613. Costa Rica is becoming part of the compilation process. However, for several surveys carried out up to 2016 Costa Rica has not been included in the list of countries to be surveyed.

These include: Survey on Performance budgeting (2016); Survey on Infrastructure Governance (2016); Survey on Accounting and Accruals (2016); Survey of Gender Budgeting (2016); Survey on Advisory Systems and Bodies (2016); Survey on Innovation (2016); Survey on Risk Communication (2015). The national authorities responded to the following requests for data and metadata:

- Survey on Public Sector Integrity
- Survey on Public Procurement
- Regulatory Management Systems Survey
- Survey on Public Sector Composition
- Compensation of Employees in Central/Federal Governments
- Survey on Strategic Human Resource Management
- Survey on Open Government
- Open Government Data Survey
- Survey on the Governance of Critical Risks
- Survey on planning and co-ordinating SDGs implementation

1614. At the time of writing, administrative efforts have been implemented and there is an integrated database conformation regarding public employment. Phase 1 (including ministries) is already completed about salary and bonuses information but there are other variables that must be included. This information is updated monthly. Phase 2 (Judicial branch, General Comptroller of the Republic and subsidiary bodies of ministries) is completed for the 70% of the embedded institutions; phase 3 (decentralized institutions and State Owned Enterprises) has already the 70% of the institutions and phase 4 (Social Security, Costa Rican National Institute of Electricity and public universities) has an implementation of the 67% of the institutions. These phases have information updated for the last trimester (March 2019).

1615. Thus, administrative measures are already in place intended to fill the gaps of information regarding compensation and composition of public employees while legal mandate is approved. This database was used to answer the last survey regarding composition of public employment that will be used for the OECD Government at a Glance 2019.

Interpretability

1616. When needed Costa Rica provided the necessary metadata about definitions and methodologies and some glossary.

Compliance with international standards and methodologies used in most OECD countries

1617. Costa Rica satisfies on the criteria of comparability of the data, except for the surveys on Composition and Compensation of government.

Timeliness

1618. National authorities delivered their answers respecting the deadlines for all surveys except the Composition survey.

Data transmission

1619. Costa Rica provides Government Statistics data via Checkbox, Excel and email.

Overall assessment

1620. Overall, Costa Rica complies with the OECD requirements as regards the availability and quality of statistics on public governance already provided. However, the comparability of statistics on the Composition and Compensation of government employees requires some improvements and Costa Rica is encouraged to pursue on-going efforts to improve the collection of administrative data in order to improve data quality. A bill of law for public employment reform states as a legal mandate the conformation of the integrated public employment platform that will allow the comparability of data regarding compensation and composition. If this bill of law is approved, as expected, by end 2019, information will be available for 2020.

1621. At the time of writing, administrative efforts have been implemented in particular as regards the development of an integrated database on public employment. This database was used to answer the last survey regarding composition of public employment that will be used for the 2019 *OECD Government at a Glance* publication. Thus, administrative measures are already in place intended to fill the gaps regarding compensation and composition of public employees while legal mandate is approved.

14.13. Regional and Territorial Statistics

1622. The Regional and Cities statistics aim to provide internationally comparable indicators to support analysis of regional characteristics, resources, drivers and potential for development and to improve the understanding of sub-national patterns and dynamics of structural change in all types of regions (rural, urban areas, metropolitan areas). Measures, data quality and comparability are discussed and approved by the OECD Working Party on territorial Indicators (WPTI).

1623. The OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE) collects data on an annual basis from all OECD member countries and selected non-member countries. Results are published in the bi-annual *OECD Regions and Cities at a Glance* publication, which presents indicators on individual regions and cities to assess disparities within countries and their evolution since the turn of the new millennium. The publication covers a wide range of topics including those related to well-being (i.e. education, health, income, jobs, housing, civic engagement, access to services, environmental quality, etc.), employment, productivity, and economic growth.

1624. The OECD Regional database contains socio-economic and environmental indicators for large (TL2) and small (TL3) regions, separately. Small regions are classified in three classes along the urban-rural hierarchy, according to a method consistently applied by Eurostat for European regions. The Metropolitan database provides socio-economic and environmental indicators at the scale of cities with at least 250,000 inhabitants. In order to maximise the international comparability of indicators in the Metropolitan database, cities are defined as "functional urban areas", where city boundaries are identified according to a common OECD/EU method based on population density and commuting-to-work flows. Regions and Cities datasets (Metropolitan areas, Regional Statistics, Regional Well-being, Subnational Government Structure and Finance) are regularly updated on the OECD data portal and are analysed and published in the *OECD Regions and Cities at a Glance* and *OECD Regional Outlook* series.

1625. Regional indicators are collected yearly through an excel questionnaire sent to delegates of the WPTI who coordinate the collection across the data providers of their country. The data requirements cover a wide range of topics such as education, health, income, employment and

productivity, population and demography, economic growth, knowledge-based activities and the environment. In parallel to this data collection, the determination of the regions for TL2 and TL3 level, the application of the rural/urban and the functional urban typologies are requested.

Data sources

1626. The first data collection on Regional statistics for Costa Rica was performed in Q3-2016 in co-ordination with INEC.

Coverage

1627. Costa Rica has two large sub-divisions of their territories: the territorial administrative division (7 provinces) and planning regions (6). The recommendation made by Costa Rican authorities is to use planning regions which are the basis for sub-national analysis made by the Costa Rican government.

1628. In order to have the same degree of comparability with the TL2 and TL3 regions contained in the Regional database, the Costa Rican TL2 correspond to the country level and TL3 regions to 6 planning regions.

1629. A legal mandate for the improvement of the available statistical operations, the Executive Decree 41181-PLAN[178] "Costa Rican Geographic Classification with statistical purposes handbook" issued in May, 2018 to foster the use of the handbook for the use of the geographic classification: administrative territories (province, canton and district) with their respective codes and regions; as well as the country and zone codes for statistical use given by the Statistics Division of the United Nations. For its implementation, INEC set an online consultation for any advisory required. The term given by the executive decree for the implementation of this classification is a period of two years, so there must be improvements in place for 2020.

1630. Data have been received for both provincial and planning regions. The data received at provincial level covered demographics (population / deaths / intra-regional migration), health (infant and transport related mortality rates), and student enrolment. Additional indicators can be computed for these regions (mainly Labour Force and Income).

1631. Data for planning regions covers mainly Labour Force statistics with the Encuesta de Hogares de Propósitos Múltiples (EHPM) from 1990 to 2009, and the Encuesta Continua de Empleo (ECE) from 2010 to 2015. At the time of writing, these surveys do not generate data by province. No economic data at sub-national level have been provided (GDP/GVA/Income).

1632. There are other information sources that give territorial information such as the Social Development Index calculated by Ministry of Planning and Economic Policy (MIDEPLAN[179]). This Index has been calculated more often during the recent years (1987, 2001, 2007, 2013, 2017) and give information of several indicators regarding Economy dimension (electricity supply, internet access); Participation (electoral participation); Education (infrastructure for education, special instruction programs, rural one-teacher-schools, education lag, High school scope) Health (single mothers under 19 years, water supply scope, children under 5 years old death rate, underweight children) Security (traffic accidents deaths, intentional homicides). Information is given for every canton and district, so regional and province expression is also displayed. This

[178] http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=86891&nValor3=112952&strTipM=TC

[179] https://www.mideplan.go.cr/indice-desarrollo-social

index is used for the several uses such as designation of budgetary allocation regarding salary bonuses for teachers, cantonal road construction, and other earmarked resources.

Interpretability

1633. Data were documented with metadata: source and additional comments were provided when needed.

Compliance with international standards and methodologies used in most OECD countries

1634. The data received meet the requirements for sub-national statistics in term of demographic, labour and health statistics. They have subnational finance data following IMF standards.

Timeliness

1635. Costa Rica has sent back the regional questionnaire within an acceptable timeframe.

Data transmission

1636. Data were provided by Excel questionnaire through email. Data for Subnational government finance have been directly collected on the IMF site where they were available.

Overall assessment

1637. Costa Rica has provided reliable data at sub-national level and the Social Development Index, an important information published at subnational level. However, raw indicators could be disseminate along the index in order to guarantee more transparency in the methodology. The coverage for planning regions should be extended in terms of indicators and further cooperation should be engaged in order to achieve better coverage of subnational statistics and develop statistics on functional urban areas (cities). Costa Rican authorities are encouraged to participate in the Regional Development Policy Committee (RDPC) and its related Working Parties (WPTI, Working Party on Rural Policy, and Working Party on Urban Policy).

14.14. Revenue, Wage and Tax Statistics

1638. The OECD Centre for Tax Policy and Administration (CTPA), whose parent is the OECD Committee on Fiscal Affairs (CFA), collects revenue, wages and tax statistics and produces three key comparative statistical databases: the OECD Revenue Statistics database, the OECD Taxing Wages database and the OECD Revenue Statistics database.

Data sources and transmission

1639. The data is being supplied by the Costa Rican MdH via Excel.

Coverage

1640. Costa Rica's progress on the three main tax databases is as follows.

- **OECD Revenue Statistics:** Costa Rica has provided a full set of Revenue Statistics tables. After extensive discussions in early 2018 on the classification of certain revenues and the placement of revenues from other governments, WP2 has confirmed that Costa Rica meets the standard required by the OECD. The data provided by Costa Rica has been published in *Revenue Statistics in Latin America and the Caribbean* for two years: 2018 and 2019.
- **OECD Tax Database:** Costa Rica has provided a full dataset for the years 2000 to 2018. These meet the standard required by WP2.
- **OECD Taxing Wages:** Costa Rica has submitted models and accompanying text for 2000 to 2018 which have been approved by CTPA. These meet the standard required by WP2.

Overall assessment

1641. Overall, Costa Rica made significant progress during the review process and now complies with the OECD requirements as regards the availability of Taxing Wages, Revenue Statistics and the Tax Database.

14.15. R&D, Innovation, Science and Information and Communications Technology Statistics

1642. The OECD Directorate for Science, Technology and Industry (STI) collects statistics on Research & Development (R&D); Innovation; and Information and Communications Technology (ICT).

Data sources

1643. The Unit of Institutional Planning at the Ministry for Science, Technology and Telecommunications (MICITT) in Costa Rica is directly responsible for science and technology (including biotechnology), innovation and R&D statistics.

1644. MICITT oversees the collection of R&D and innovation data for the business sector in partnership with INEC and the International Centre of Economic Policy for Sustainable Development (CINPE), an academic research centre. Data on human resources in science and technology are collected under the supervision of the MICITT and the National Council of Rectors.

1645. Data on ICT Access and Use by Households and Individuals are provided by the MICITT in partnership with INEC. There is currently no dedicated survey on ICT Access and Use by businesses.

Interpretability

1646. The information available through the MICITT website[180] was found to contain very limited metadata and explanatory notes. To address this major problem, MICITT is working in the register of the metadata and methodological information for all surveys of R&D and Innovation. This task is done in collaboration with INEC through a web tool named Accelerate Program of Data (PAD). Costa Rica reports that this work is expected to be finished by December 2019. The result of this tool is intended to be shared in the website of INEC and will be linked in MICITT´s website.

1647. Indicators on ICT Access and Use by Households and Individuals, as requested by the OECD questionnaire, are relatively well covered, except notably for the Broadband access and use by the households. Currently covering 18-74, the age range should be extended to 16-74 to be in line with a majority of OECD countries. A better coverage of indicators breakdowns by background socio-economic variables should be made in order to ease international comparability. The provision of an English version of the methodological manuals and questionnaires related to the two survey-vehicle used (*Encuesta de Acceso y Uso de los Servicios de Telecomunicaciones, and Encuesta Nacional de Hogares*) -especially the part on ICT access and use- would be also useful.

Compliance with international standards and methodologies used in most OECD countries

1648. The survey questionnaires used by Costa Rica reflect an attempt to comply with OECD guidance as contained in the Frascati and Oslo Manuals for R&D and innovation in firms, respectively. The two main survey instruments used for the “institutional” and business sectors

[180] http://indicadores.micit.go.cr/home

are described in the surveys page of the MICITT website[181] and refer to OECD and UNESCO standards, as well as regional implementation guidelines developed for the LAC region. The combination of questions on innovation, R&D, and ICT within the same survey aimed at business may not only lead to non-response but also hamper full compliance with the key indicators of priority to OECD. In particular, information on R&D in business is significantly compromised as information on sources of funding is only requested for the entire business innovation expenditures, which are notoriously more difficult to measure. This results in a significant coherence challenge between what R&D public administrations report to be funding compared to what firms themselves report receiving from administrations. In response to this, the Costa Rican authorities have tested a new R&D pilot questionnaire in business sectors design considering Frascati Manual 2015 recommendations. This would be applied in a sample (based on a panel of firms that have been previously interviewed) and aims to compare the results with the data for the same firms in previous surveys and the results of the rest of firms in the same exercise.

1649. Survey and data collection implementation have differed from OECD recommendations in a number of dimensions. In response to concerns about the use of statistical registers and the identification of potential business R&D performers economy-wide, Costa Rica has reportedly sought since June 2017 to capture the resources dedicated to R & D in conjunction with the Central Bank of Costa Rica, targeting specifically service sector, while sampling procedures now resemble more closely those used in OECD countries, pending further detailed information on the detailed estimations methods used. In 2018, MICITT and the Central Bank of Costa Rica standardized the definitions used to perform R&D measurements using the Frascati Manual as the reference methodological guide.

1650. In March 2019, MICITT submitted to OECD specific information on the estimation methods used. Officials are in the process of completing the full OECD information request in the timeframe requested.

1651. For the non-business institutional sector(s), greater and more effective use of administrative data and more thematically targeted survey instruments could provide more robust and reliable data. Project level and budgetary information could be better exploited, leading to better integration of administrative data in the overall STI statistical framework. This would require considerable co-operation with major funding agencies and other ministries. The volatility of non-R&D Science and Technology Activity Data casts considerable doubts on its validity and relevance for policy makers.

1652. Costa Rica's collection and reporting of human resources for STI is focused on indicators of R&D personnel on the one hand and new graduates on the other, conducted using institutional databases of public and private universities under the supervision of the National Council of Rectors. However, some inconsistencies have been identified across databases, possibly owing to the use of different definitions across institutions. In addition, current reporting does not make any systematic efforts to collect information on the entire population of highly qualified individuals (by qualification or occupation, as recommended by the OECD).

1653. In relation to the collection of information on highly qualified individuals, efforts have been made to obtain this information from administrative registers of CONARE and UNIRE, both boards of rectors of public and private universities, respectively.

1654. At the time of writing, Costa Rica produces technology statistics on firms engaged in biotechnology and nanotechnology, and statistics on attitudes, perceptions, and engagement regarding science and technology. Data on scientific publications and patents are available from

[181] http://www.micit.go.cr/encuesta/

commercial (large indices) and administrative sources, but there appears to be no real integrated dissemination vehicle with wide ranging indicators from multiple sources on the general state of STI in Costa Rica. On the basis of the information provided and identified online, Costa Rica's adoption of OECD standards and recommended practices on the statistical collection and dissemination of data on science, technology, and innovation data is significant but still partial, leaving considerable room for improvement and international alignment. The Information System on Science and Technology launched in August 2018 is an attempt to address previous OECD recommendations.

1655. Costa Rica participated for the first time in the meeting of the OECD Working Party of National Experts on Science and Technology Indicators (NESTI) in March 2016, with linkages having been established in 2011 as part of joint IADB, Ibero-American Network for Indicators on S&T (RICYT), UNESCO Institute for Statistics (UIS), and OECD efforts to promote the adoption of best practices in innovation surveys in the Latin America and the Caribbean (LAC) region. Since then, Costa Rica's participation in OECD/NESTI meetings and discussions has been active and regular. Furthermore, Costa Rica also hosted the RICYT Conference held in November 2017 in San Jose, with engagement at senior ministerial level, becoming one of the most active countries in the region in the promotion of STI statistics and their development.

Data transmission

1656. Indicators are made available in a dedicated statistical report (e.g., MICITT Indicators Report[182]) and in a dedicated and easily accessible website[183] comprising a series of dashboards on the areas of Science & technology activities, R&D, Innovation and Human resources.

1657. There are no links to dedicated websites with the underlying data by source. STI indicators are also available through INEC's Statistical Yearbook although the information is not linked from the MICITT website.

1658. Costa Rica has reported it is able to submit statistics and detailed metadata to the OECD on an experimental basis, as anticipated in Costa Rica's roadmap on STI statistics. Data for Costa Rica are already published by the Ibero-American Network for Indicators on S&T (RICYT) and by the UNESCO Institute for Statistics (UIS). Some apparent differences have been found across national and international sources by the OECD team that worked in the OECD Innovation Review of Costa Rica. Boosting the internal and external coherence of Costa Rica's STI data should be a major priority, and differences should be carefully accounted for and explained in accessible methodological notes. The data to be submitted by Costa Rica on an experimental basis during 2019 will provide the basis for a decision as to whether to publish the data or request further methodological improvements.

1659. In 2018, MICITT updated and standardized Costa Rica's information in different international databases and currently is working to prepare the information and data to be submitted to OECD for quality control.

1660. Indicators on ICT Access and Use by Households and Individuals are made available via an ad-hoc OECD Questionnaire submitted on a yearly basis. MICITT fill in the Questionnaire with accompanied notes related to metadata.

Overall assessment

[182] http://www.conicit.go.cr/servicios/listadocs/indicadores-2013-Pub-2015.pdf

[183] http://indicadores.micit.go.cr/home

1661. Compared to OECD Members, Costa Rica's statistical infrastructure for science, technology and industry policies is relatively under-developed, although adequate for some essential purposes and improving, driven by the need to support greater accountability and evaluation of policy impacts. Although improvements, this infrastructure remains relatively underutilised and not sufficiently appreciated by key stakeholders. Costa Rica agrees that some areas require further development, in particular around the use of emerging and enabling technologies. To this end, a roadmap was agreed in 2017 with the Costa Rican statistical authorities for their STI statistics to comply with the taxonomies within the Oslo and Frascati Manuals for R&D and innovation in firms respectively, which qualify different types of business support for innovation. Concrete action points for the following two years until 2019 were identified in discussion with MICITT and other actors within the STI statistics and analysis area:

- Develop greater awareness of OECD resources and guidance, through for example internal workshops (roadshow seminars) in which OECD standards can be presented and discussed for the benefit of data providers and administrators.
- Harmonise approaches between the BCCR and MICITT and ensure that unnecessary duplication of data collection efforts is avoided when it comes to measure R&D expenditures for STI and national accounts statistics.
- Implement a cooperation between the BCCR, MICITT and CINPE to co-ordinate their respective R&D data sources, as well as possible updates to the current innovation survey approach to obtain a detailed picture of R&D performance within Costa Rica's firms.
- Implement the Oslo Manual 2018 for collecting reporting and using data on innovation in the context of the preparation of the MICITT's innovation survey to be launched in 2020. This process should be accompanied by the development of a relevant statistical/analytical infrastructure, while Costa Rica has not sought out to participate in OECD analytical projects set out to build analytical capabilities as well as a microdata infrastructure suitable for policy analysis and evaluation.
- Support online platforms and publications for STIs statistics of Costa Rica. Mapping of financial flows supporting science, R&D and innovation across the STI system should be particularly encouraged in order to assist prioritisation of monitoring and evaluation work.
- Develop an information system of science, technology and innovation indicators, including an information bulletin on issues of statistics and indicators of science, technology and innovation, an open data portal allowing users to generate and export tables and graphics in various formats, and support for business innovation surveys.

1662. Overall, Costa Rica continues to make progress to implement the agreed roadmap and there are several signs indicate that the country is on track towards providing statistical data in the area of STI as required from OECD Members.

14.16. Tourism Statistics

1663. The OECD Tourism Unit, Centre for Entrepreneurship, SMEs, Local Development and Tourism collects data on an ad hoc basis once every two years for its biennial *Tourism Trends and Policies* publication and for inclusion into the OECD Tourism Statistics database. Basic statistics

include domestic, inbound and outbound tourism (number of trips, receipts and expenditure), enterprises and employment in tourism, tourism consumption and other key economic indicators.

Data sources

1664. The institutions responsible for producing Tourism Statistics in Costa Rica are: the Costa Rican Tourism Board, INEC, and the BCCR.

Coverage

1665. Costa Rica provided most of the data required. Costa Rica has provided complete datasets on enterprises and employment, although employment data only starts in 2011. Most data have been provided for inbound tourism while only a few data have been provided for outbound tourism, as well as for the key indicators. At the time of writing, no data have been provided on domestic tourism and internal tourism consumption.

Interpretability

1666. Costa Rica already participated three times in the collection of data through the questionnaire. Data should align with the international recommendations on tourism statistics and therefore no metadata are required unless they differ. Nevertheless if questions rise regarding the methodology, the Secretariat is confident that Costa Rica will respond promptly.

Compliance with international standards and methodologies used in most OECD countries

1667. As data align with the International Recommendations for Tourism Statistics (IRTS), they should be comparable to those of OECD countries.

1668. No significant problems are anticipated with Costa Rica's capacity to fulfil the requirements, beyond problems related to the continued implementation of the recently established Tourism Satellite Account.

Overall assessment

1669. Costa Rica partially meets OECD requirements for tourism statistics. The Costa Rican Tourism Board, INEC, and BBCR provided complete datasets on enterprises and employment although employment time series only starts in 2011. Data provided comply with international standards and are consequently internationally comparable. However, Costa Rica did not provided data for domestic tourism and internal tourism consumption, and transmitted incomplete key indicators and data on inbound and outbound tourism.

1670. Important progress have been achieved to improve tourism statistics, including the development and publication of tourism satellite accounts in 2018, allowing Costa Rica to progressively fill in the existing gaps. The next OECD data collection will start in July 2019 and Costa Rica will be included in this survey. Costa Rica is committed to provide data and metadata available for the incomplete datasets.

14.17. Transport Statistics

1671. The OECD/International Transport Forum (ITF) Research Centre maintains a range of statistics and indicators on transport, as well as specialised databases. The ITF statistics unit carries out a series of surveys to collect transport related data for all modes of transport and is developing and maintaining a reference database for international transport data comparisons. This information is processed, analysed internally and finally disseminated through different means (the ITF transport outlook, the ITF Key transport Statistics, the ITF Statistics brief, the ITF Website).

1672. Costa Rica being not a member of the ITF, transport statistics of Costa Rica were not assessed at the time of drafting this review. Nevertheless, Costa Rica has a large amount of information on the different modes of transport, while disseminated by various institutions of the Transport and Infrastructure Sector (Ministry of Public Works and Transportation (MOPT) with its Attached Bodies, the Costa Rican Railway Institute (INCOFER), the Costa Rican Institute of Ports of the Pacific (INCOP), and the Port Administration and Economic Development Board of the Atlantic Slope (JAPDEVA)). A single focal point for transport statistics in Costa Rica would improve efficiency in data collection.

1673. The Sector Planning Secretary of the Ministry of Public Works and Transportation (SPS) periodically collects statistics produced in this sector and requested in the questionnaires, for publication in the annual Statistical Yearbook of the Transport and Infrastructure Sector. Coordination between ITF and Costa Rica needs to be further improved

14.18. Overall assessment of Costa Rican data collected by other OECD Directorates

1674. Although assessments differ across the various domains covered, the OECD Directorates are generally positive concerning the quality and comparability of statistics for Costa Rica, and the capacity to integrate them into OECD databases. While several gaps remain, significant progress in quality, consolidated by the implementation of concrete action plans in almost all the statistical domains, have been observed during the review and will continue to be accompanied.