



PISA FOR DEVELOPMENT CAPACITY NEEDS ANALYSIS: CAMBODIA



PISA

FOR DEVELOPMENT



**PISA FOR DEVELOPMENT
CAPACITY NEEDS ANALYSIS:
CAMBODIA**

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Photo credits: © Curt Carnemark/World Bank

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of the source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

ACKNOWLEDGEMENT

This report has been produced with the support of the World Bank, through its READ Trust Fund programme, as part of its contribution to the PISA for Development project.

This report has been prepared by Fernando Cartwright on behalf of the OECD and the Ministry of Education, Youth and Sport, Cambodia as part of the PISA for Development project. PISA for Development is an initiative of the OECD and development partners that aims to identify how PISA can best support evidence-based policy making in emerging and developing economies – and contribute to the UN-led definition of global learning goals for the post-2015 agenda. In addition the project will help to build country capacity in assessment, analysis and use of results for monitoring and improvement among participating countries.

TABLE OF CONTENTS

PISA FOR DEVELOPMENT CAPACITY NEEDS ANALYSIS: CAMBODIA.....	7
1. Introduction and background	7
2. Methodology	8
2.1. Structure of the Capacity Needs Analysis framework	9
2.2. Using the framework	10
2.3. Primary document analysis	11
2.4. Normative definitions	12
2.5. Pilot analysis	12
2.6. Stakeholder consultations.....	13
2.7. Refinement and extension	16
3. Summary of the Capacity Needs Analysis.....	16
3.1. Enhanced contextual questionnaires and data-collection instruments (Strand A).....	17
3.2. Enhanced cognitive assessments (Strand B)	18
3.3. Including out-of-school 15-year-olds (Strand C)	19
3.4. Identify peer-to-peer learning opportunities regarding PISA participation with other countries and development partners	19
4. Capacity development priorities	20
4.1. Enabling environment	20
4.2. Organisation	21
4.3. Individual	23
5. Next steps.....	23
REFERENCES	24
ANNEX A: SUMMARY OF RATINGS FOR CNA DIMENSIONS	25
CNA Dimension 1. Enabling environment	25
CNA Dimension 2. Organisation	43
CNA Dimension 3. Individual.....	55
ANNEX B: TERMS OF REFERENCE	69
Introduction.....	69
Statement of Work.....	69
Deliverable A: Capacity Needs Analysis reports	69
Deliverable B: Capacity Building Plans.....	71

Tables

Table 1.	Enabling environment ratings: Normative definitions used for each element.....	12
Table 2.	Organisational ratings: Normative definitions used for each element.....	12
Table 3.	Individual ratings: Normative definitions used for each element.....	12
Table 4.	Stakeholders	14
Table A.1.	Summary of ratings for CNA dimensions	25

Figures

Figure 1.	Summary of ratings for CNA elements, by CNA dimension	16
Figure 2.	Stakeholder collaboration model for PISA-D implementation.....	22

PISA FOR DEVELOPMENT

CAPACITY NEEDS ANALYSIS: CAMBODIA

1. Introduction and background

PISA for Development (PISA-D) is an initiative of the OECD and development partners that aims to identify how PISA can best support evidence-based policy making in emerging and developing economies – and contribute to the UN-led definition of global learning goals for the post-2015 agenda. In addition, the project will help to build country capacity in assessment, analysis and use of results for monitoring and improvement among participating countries.

The initial phase of the project in each participating country is the completion of a Capacity Needs Analysis (CNA). The benchmark for the CNA is the necessary capacity required in the context of the PISA for Development project, which is defined as:

- The ability of the individuals and institutions responsible for the project in each country to perform the necessary functions (as set out in the roles and responsibilities for the National Centre and National Project Manager), solve the likely problems that will arise during implementation and set and achieve project objectives in a sustainable manner.

Countries may desire future capacities for student assessment that go beyond this minimum requirement. Identification of additional needs should reflect the participating countries' aspiration, while respecting the feasibility of realising the additional needs within the context of PISA for Development's three-year implementation cycle and required activities.

This document describes the Capacity Needs Analysis (CNA) framework for PISA for Development as well as the use of this framework in the Cambodian context. The framework itself is derived from project requirements of the main OECD PISA implementation, which are outlined in the PISA National Project Manager (NPM) Manual (OECD, 2012a) and the NPM Roles and Responsibilities (OECD, 2012b), and the stated programme outputs of PISA for Development (OECD, 2013). The framework is structured according to three dimensions: 1) Enabling context, 2) Organisation, and 3) Individual. The framework is designed to assess the capacity of participating countries to achieve the five programme outputs of PISA for Development, which are:

1. Enhanced contextual questionnaires and data-collection instruments.
2. Enhanced descriptive power of cognitive assessments in reading, mathematics and science, at appropriate skill levels within the PISA cognitive framework.
3. An approach, including a methodology and analytical framework, for including out-of-school 15-year-olds in the assessments.
4. Increased country capacity in assessment, analysis and use of results for monitoring and improvement.

5. Engagement with OECD, development partners and, prospectively, with other developing countries in order to identify peer-to-peer learning opportunities regarding participation in PISA and its potential contribution to the UN-led discussions on the post-2015 framework.

The CNA is designed to generate an understanding of capacity assets and needs, which, in turn, will lead to the formulation of a Capacity Building Plan (CBP). The framework utilises elements of the SABER-Student Assessment questionnaires developed by the World Bank (Clarke, 2012) as well as the PISA technical standards as the benchmarks for assessing Cambodia's assessment system and capacity for managing National and International Large-Scale Assessments. The standardised data obtained from applying the framework is incorporated into this CNA and will also be used to assist in identifying indicators, baselines, and targets for improvement in the context of the CBP. The tool used to enter data into the framework is online at: <http://polymetrika.ca/PISAforDev>.

The CNA indicates that Cambodia has many of the requisite capacities for basic implementation of PISA-D. A well-established public examinations system and the annual collection of survey-based National Assessment are evidence that the country is able to conduct the core operations required of PISA. Although many of the existing assessment-related capacities do not match the complexity or technical competence associated with PISA, they provide a solid basis for future development. The broad community of stakeholders in Cambodia show widespread interest in many aspects of PISA-D, particularly building assessment capacity and utilisation of data.

However, factors related to the management of assessment activities and co-operation between stakeholders in Cambodia currently limit the ability of Cambodia to utilise existing capacity to successfully meet all goals of PISA-D. Historically, the government department responsible for the National Assessment did not operate with the transparency and autonomy necessary for effective monitoring and reporting about the status of the education system. In addition, the development of human resources to sustain long-term operation of a large-scale assessment system has been ad hoc, through Development Partners, and has not been supported by government initiatives. Successful implementation of PISA-D, including capacity building activities, will require greater commitment from a variety of stakeholders to institutionalise assessment operations and utilise assessment results.

The structure of this report is as follows: it begins with a description of the needs analysis methodology, Section 2, together with a presentation of the needs analysis framework. Section 3 summarises the needs analysis with respect to the five PISA for Development programme outputs, the PISA technical standards and the SABER benchmarks. Section 4 describes the capacity building priorities that arise from analysis of the main assessment dimensions. The detailed capacity needs analysis is presented at Annex A and the Terms of Reference for the capacity needs analysis are included in Annex B.

2. Methodology

The CNA was completed for Cambodia during two stages of interviews. The first stage of interviews was conducted in Montreal in October 2014, and the second was conducted in November 2014 in Phnom Penh. These interviews were facilitated by the Japanese International Cooperation Agency (JICA) and were co-ordinated by the MoEYS. The first stage of interviews focused on individual and organisational capacity within MoEYS using information provided by the presumptive PISA-D National Project Managers and representatives from JICA. The second stage of interviews was conducted across a broader sampling of stakeholders both within the MoEYS and the broader stakeholder community. These interviews were followed by a detailed review of documentation on related educational policies and programmes in Cambodia, publicly-available from the Ministry of Education, Youth and Sport, Cambodia (MOEYS) website or shared by MoEYS staff.

The findings of the CNA were discussed with MoEYS and Development Partners during a workshop facilitated by JICA in January 2015 in Phnom Penh and chaired by H.E. Hang Chuon Naron, Minister of Education, Youth and Sport.

2.1. Structure of the Capacity Needs Analysis framework

The structure of the CNA framework is presented in this section. The framework consists (in the current working version) of 112 capacity elements that are required for successful implementation and stakeholder use of the PISA for Development products. Each element is defined by an overall description and descriptions of up to four levels of development (as applicable to each element), corresponding to the normative definitions described in section 2.2.

The organising structure of the framework is hierarchical, with each PISA for Development capacity element nested within the three main dimensions:

- The enabling environment, encompassing the legislative context and culture that facilitates the implementation, and the stakeholders who make use of the results.
- Organisation, encompassing the National Centre and any sub-national institutions that are directly involved in the implementation of the project.
- Individual, encompassing the staff of the National Centre and related organisations, in particular the National Project Manager(s) and his/her team.

Within each dimension, the elements are further organised according to the PISA for Development project requirement for which they are first needed. The PISA for Development requirements are an extension of the main PISA project milestones; they roughly follow a sequence beginning with establishing the National Centre and ending with dissemination of results to stakeholders to support decision making:

- Designation of NPM and establishment of National Centre.
- Compiling and confirming information on schools and students for the definition of the assessment population, stipulation distribution of languages in which assessment materials will need to be available, definition of criteria for stratification of school and student samples.
- Establishing security protocols for the National Centre and for national sub-contractors.
- Co-ordination of appropriate enhancements/adaptations/translations of instruments, manuals and guides, and field trial and verification process with international contractors, including the development of a national component.
- Deciding on the scale of national adaptations and number of assessment languages and co-ordination of appropriate enhancements/adaptations/translations of instruments, manuals and guides, and field trial and verification process with local translators, subject experts and international contractors.
- Organisation of plans for local printing of assessment materials and verification of print and paper quality in all languages that will be covered, while maintaining security.
- Communication and co-ordination with schools that will participate in the assessment.

- Communication and co-ordination with international contractors for the selection of the student samples in each school.
- Recruitment and training of test administrators that do not have any direct relationship to the students that will be assessed and that are experienced and competent enough to carry out the testing sessions following the scripts, guidelines and procedures established.
- Planning of the quality assurance process so that Quality Monitors visit a sample of schools during testing sessions to observe and document quality of sessions.
- Planning of staffing and resources (technical and material) needed for coding of test booklets and contextual questionnaires and data management.
- Establishing a training plan with key staff of the NC to attend training sessions.
- Preparing and distributing testing materials to schools in a secure fashion, ensuring materials arrive safely and without suffering damage or alterations.
- Monitoring of school and student response rates, in co-ordination with international and national contractors, as appropriate.
- A sample of the student testing booklets that were coded will be submitted to the international contractor for an International Coder Review (ICR).
- The NPM, in consultation with educational authorities, the international contractors, the OECD Secretariat and relevant development partners, reviews the country's data base and the draft analysis plans for the national report.
- The NPM provides input and guidance with regards to the policy priorities that should help determine the content and analysis presented in the country report.
- NPM develops a national dissemination plan of their country's participation in PISA for Development and the relevant results from the pilot.
- Production of reporting documents and media.
- Dissemination of results to general audiences.
- Dissemination of results to key stakeholders.

This structure facilitates the prioritisation of different capacity elements throughout the programme implementation. Each capacity element is also indexed by the PISA for Development programme output for which it is most required.

In case further information is required, each element also refers to one or more primary documents (listed in section 2.1) to justify its inclusion in the framework.

2.2. Using the framework

The purpose of the CNA framework is to facilitate the development of in-country capacity for implementation of PISA for Development. The framework provides a step-by-step approach to

1) evaluating of the current capacity for implementing PISA for Development, 2) setting development goals related to PISA for Development activities, and 3) planning for development activities. However, the framework is not treated as static; rather, it is, where necessary, extended and refined based on information that emerges during the data collection process.

The rubric is reviewed with stakeholders to identify the current status of each element. The information may be collected using any appropriate needs analysis methodology such as questionnaire or interview. The completed rubric also includes a plain-language justification for each assigned rating. Once completed, the ratings and justifications, along with a narrative summary, are reviewed by key stakeholders. During the data collection or review process, if there are any new requirements identified, they may be added to the framework. If a new element is added, it is indexed by the structure defined in section 3.1, and the textual descriptions of the levels follow the normative descriptions described in section 2.2.

2.3. Primary document analysis

The development and implementation of the CNA framework is built on four primary documents:

1. PISA Technical Standards. This document details the quality standards required for successful participation in PISA. For the purposes of the CNA framework, these quality standards are also assumed to apply to the PISA for Development context.
2. PISA for Development document. This document outlines the broad goals of PISA for development, as described in section 1.
3. PISA National Project Manager (NPM) Manual. This document outlines the sequence of activities, as well as describes the recommended resources required for PISA implementation.
4. SABER – Student Assessment (SABER-SA). The SABER framework describes the broader context of student assessment in a country. In particular, the CNA framework development focused on large scale assessments, particularly national and international assessments. These documents augmented the PISA-based documents by expanding on the requirements for participation to examine the broader enabling context. This dimension includes issues such as programme sustainability and the social, cultural and economic climates that will be necessary for meaningful use of the PISA results. The SABER framework uses evaluation rubrics that classify different elements of a county’s assessment system as either: Latent, Emerging, Established or Advanced. The different levels characterise the degree to which each element can support an effective assessment system, with “Established” representing the minimum level required to sustain an assessment system.

The first stage of analysis examined each of these documents from the dimensions of the enabling context, organisation and individual to identify the requisite elements of each dimension that are necessary to produce the PISA for Development programme outputs. Each element in the framework describes a salient characteristic in the country’s capacity that may be addressed with a targeted capacity building response; although the development of a single element sometimes required several capacity building activities, the activities are similar enough that they draw from similar human or physical resources and affect the same group of country-level stakeholders.

For each of these preliminary programme elements, development levels were defined by following the rubric approach established by the SABER instruments. Using a priori assumptions about the key features likely to be found at the four SABER levels, plain language descriptions were defined for each level (as applicable) for each programme element. Completing the rubric involves interviewing stakeholders to

collect information about each rubric element, then, for each element, identifying the appropriate development level and providing a justification for the rating.

2.4. Normative definitions

To facilitate the creation of textual descriptions for the different levels of each element of the framework, normative definitions were developed for the three dimensions. As new elements were identified and included in the framework, these normative descriptions guided the textual definitions for each level of the new element. For some elements, one or more of these levels did not apply; in these cases, the level remained undefined, as in the original SABER rubrics.

Table 1. Enabling environment ratings: Normative definitions used for each element

Latent	There is no environmental support or there are environmental obstacles that deter programme implementation
Emerging	There are political, economic or social structures in place that may be adapted to facilitate implementation
Established	Political, social or economic structures exist that can support implementation
Advanced	Political, social or economic structures are currently providing support to similar activities

Table 2. Organisational ratings: Normative definitions used for each element

Latent	There is no capacity to assume this role
Emerging	Some capacity exists but it is not institutionalised in a coherent administrative structure
Established	Some capacity exists within a coherent administrative structure, but may lack availability or technical skills to assume responsibilities
Advanced	Capacity is institutionalised and has sufficient resources to assume the responsibilities without developing additional capacity

Table 3. Individual ratings: Normative definitions used for each element

Latent	Individuals do not have the skills and/or are resistant to developing requisite skills
Emerging	Individuals have foundational knowledge or personal attributes that will enable them to acquire requisite skills or attributes
Established	Individuals have sufficient knowledge, interest and aptitude to allow development of requisite skills or attributes with brief workplace training and/or independent training and practice
Advanced	Individuals already have the required skills or attributes

2.5. Pilot analysis

The CNA framework has been employed in several country contexts through in-depth interviews with a variety of stakeholders related to the education system and the broader education sector. Interview subjects are selected using a snowball methodology, where a small sample of known interviewees assists in the recruitment of additional participants from among their acquaintances. This methodology is generally an effective strategy for negotiating local protocols for arranging and conducting meetings and reach experts within the education community. The entry point to the process is typically the PISA-D National Project Manager (and/or implementing agency lead staff. The scope then expands to include educators, other assessment specialists, other government departments (i.e., higher education, statistics,

trade/vocational), Development Partners, and leading voices in the national education discourse. This process has been repeated in several countries both to collect necessary information related to the framework as part of the country CNA as well as explore possibilities for refining and updating the framework.

Each interview subject is asked detailed questions regarding the elements in the CNA framework. Specific interview formats may vary, depending the interests and knowledge of the interviewee, but they generally followed a basic structure:

- Subjects are provided details about PISA for Development and the purpose of the capacity needs analysis and the role of the interview in the development of the capacity needs analysis framework.
- For each element in the preliminary framework that is relevant to their interests and experience, subjects are asked to describe the current status of the element as well as any features or dependencies related to the element, such as who are the main actors responsible for each element and historical challenges accomplishing similar activities (during this segment, subjects are given the opportunity to review and comment on summaries of previously collected information).
- Subjects are asked to volunteer any additional information related to any of the three CNA dimensions.
- Subjects are asked to identify and, if necessary, introduce the interviewer to additional subjects with information or experience relevant to the topics raised in the interview.

2.6. Stakeholder consultations

Completion of the CNA was co-ordinated by the presumptive Cambodian PISA-D National Project Managers, Mr. Samith Put and Mr. Chinna Ung, with the support of JICA. At the time of writing, the MoEYS has informally appointed the NPMs as the project leads through correspondence with the OECD, but has not yet designated the National Centre nor signed the Participation Agreement with the OECD. The term *National Centre* in this document refers to the resources that have been informally assigned to the project by the MoEYS. These resources include the staff and infrastructure of the Education Quality Assurance Department (EQAD) of MoEYS.

Most consultations took the form of one-one-one or group interviews. These interviews were scheduled by the NPMs and typically were attended by one or both NPMs. The CNA process also involved participation in two workshops that were attended by the majority of educational stakeholder institutions in Cambodia, including local NGOs, Development Partners, and government departments within MoEYS. At both workshops, the CNA consultant presented the PISA for Development project, including goals, timelines and project requirements, and facilitated discussions about national implementation priorities with respect to PISA-D.

The first workshop was part of the Quality Assurance Framework programme supported by the Swedish International Development Cooperation Agency (Sida). This workshop allowed different organisations with data collection and monitoring activities to present their activities and priorities, with the longer term goal of working towards a sector-wide common quality assurance framework. The workshop was conducted from 21-22 November 2014 and was facilitated by Mr. Chinna Ung. The workshop was attended by over 50 participants representing several MoEYS departments with interests in student assessment and research and all major NGOs and Development Partners in Cambodia.

The second workshop, on 20 January 2015, was used to present the findings of the CNA and develop a common strategy for PISA-D between MoEYS departments and Development Partners. The workshop was organised by EQAD and JICA and was chaired by the Minister of Education, H.E. Hang Chuon Naron. Participants of this workshop included senior administrators of most MoEYS departments as well as representatives from ADB, EU, JICA, UNICEF, UNESCO, and the World Bank.

Salient contributions to the CNA process were made by the following stakeholders.

Table 4. Stakeholders

Name of Individual	Institution	Directorate	Job title	Address	E-mail	Telephone
HE Dr. Hang Chuon Naron	Ministry of Education, Youth and Sport		Minister			
HE Ith Sam Heng	Ministry of Labour and Vocational Training		Minister	No. 3, Confederation del la Russie, Phnom Penh, Cambodia	mlvt.gov@camintel.com	Tel: 855 23 884 375
HE Dr. Nath Bunroeun	Ministry of Education, Youth and Sport		Secretary of State National EFA Coordinator	80, Blvd. Preah Norodom, Phnom Penh, Cambodia	efa_cambodia@online.com.kh	Mobile: (855-12) 512 366 Phone: (855-23) 722 512
Mr. Ung Ngo Hok	Ministry of Education, Youth and Sport	Department of General Secondary Education	Director	#169 Norodom Blvd. Phnom Penh, Cambodia	ungngohok@yahoo.com	Tel: (855) 12 93 84 12
Mr. Bek Chiwi	Ministry of Education, Youth and Sport	Department of Education Quality Assurance	Director	#80 Preah Norodom Blvd, Phnom Penh, Cambodia	b.chiwi@gmail.com	Mobile: (855) 12 810 912
Mr. Ung Chinna	Deputy Director	Education Quality Assurance Department	Deputy Director	#125, Preah Norodom Blvd, Phnom Penh, Cambodia	chinnaung@gmail.com	Tel: (855) 12883552
Mrs. Ouk Somany	Ministry of Education, Youth and Sport	Department of Curriculum Development	Deputy Director	#185, Preah Norodom Blvd, Phnom Penh, Cambodia	ouk.somany7@gmail.com	Tel: (855-23) 211 409
Mr. Put Samith	Ministry of Education, Youth and Sport	Education	Deputy Director General	#169, Preah Norodom Blvd, Phnom Penh, Cambodia	putsamith@yahoo.com	Mobile: (855) 12 914 297 Tel: (855) 23 211 217
Dr. Chhay Kim Sotheavy	Ministry of Education, Youth and Sport	School Health Department	Director	#169, Preah Norodom Blvd, Phnom Penh, Cambodia	kimsotheavy@yahoo.com	Tel: (855) 23 218 408
Mr. Or Siem	Ministry of Education, Youth and Sport	Curriculum Development	Deputy Director (Research and Curriculum Design Specialist)	Street Norodom Blvd, Camkamon, Phnom Penh, Cambodia	or.siem@moeys.gov.kh orsiemprd@yahoo.com	Phone: (855) 12 80 94 87
Santosh Khatri	United Nations Educational, Scientific and Cultural Organization	Phnom Penh Office	Education Programme Specialist	P.O Box 29, #38 Samdech Sothearos Blvd., Phnom Penh, Cambodia	s.khatri@unesco.org	Tel: +(855) 23 72 30 54 & 23 72 50 71 Mobile: 095 948 137

Lisa Kim	United Nations Children's Fund	Cambodia Country Office	Education Officer	No. 11, Street 75, Sangkat Sraschark P.O. Box 176, Phnom Penh, Cambodia	lkim@unicef.org	Tel: (855-23) 426 214 (Ext. 118) Mobile: (855-17) 782 002
Ms. Anne Lemaistre	UNESCO		Education Sector Working Group (ESWG) Chair/UNESCO Representative	Phnom Penh, Cambodia		
Dr. Sideth Sam Dy	Royal University of Phnom Penh	Faculty of Education	Director			
Dr. Chhinh Sitha	Royal University of Phnom Penh	Faculty of Development Studies	Vice-Dean	Russian Federation Blvd. Khan Toul Kork, Phnom Penh, Cambodia	chhinh@gmail.com	855-12 72 22 97
Dr. Hen Kreng	Royal University of Phnom Penh		Educational Researcher & Consultant	Russian Federation Blvd., Toul Kork., Phnom Penh, Cambodia	krengheng@gmail.com	Mobile: (855) 77 777 934
Colin Anderson	NGO Education Partnership, VSO		Advocacy & Donor Relations Advisor	VSO, P.O. Box 912, Phnom Penh NGO Education Partnership (NEP), #41, Street 464, Toul Tumpoung II, Chamkar Morn, Phnom Penh	advisor@nepcambodia.org	Tel: +855 (0) 23 224 774 Mobile: +855 (0) 77 627 206
Carina Abreu	Skolinspektionen Swedish Schools Inspectorate		Head of Department	Box 23069 SE-104 35 Stockholm, Sweden	carina.abreu@skolinspektionen.se	Phone: +46 8 586 08136
Hor Sokhak	Room to Read	Country Office – Cambodia	Literacy Director	#111, St. 566, Boeung Kak II, Tuol Kok, Phnom Penh, Cambodia	Sokhak.hor@roomtoread.org	Tel: (855-23) 881 161 Ext. 32 Mobile: (855-12) 972 264
Dr. Alassane Sow	The World Bank		Country Manager	Phnom Penh, Cambodia		
Mr. Simeth Beng	The World Bank	East Asian and Pacific	Senior Operations Officer	Phnom Penh, Cambodia	sbeng@worldbank.org	Tel: 855 23 861366 Cell: 855 12 772226
Dr. Tsuyoshi Fukao	The World Bank			Phnom Penh, Cambodia	tfukao@worldbank.org	

Information from these stakeholder consultations was supplemented by review of MoEYS policy documents, Ministerial speeches and project documentation provided by EQAD.

2.7. Refinement and extension

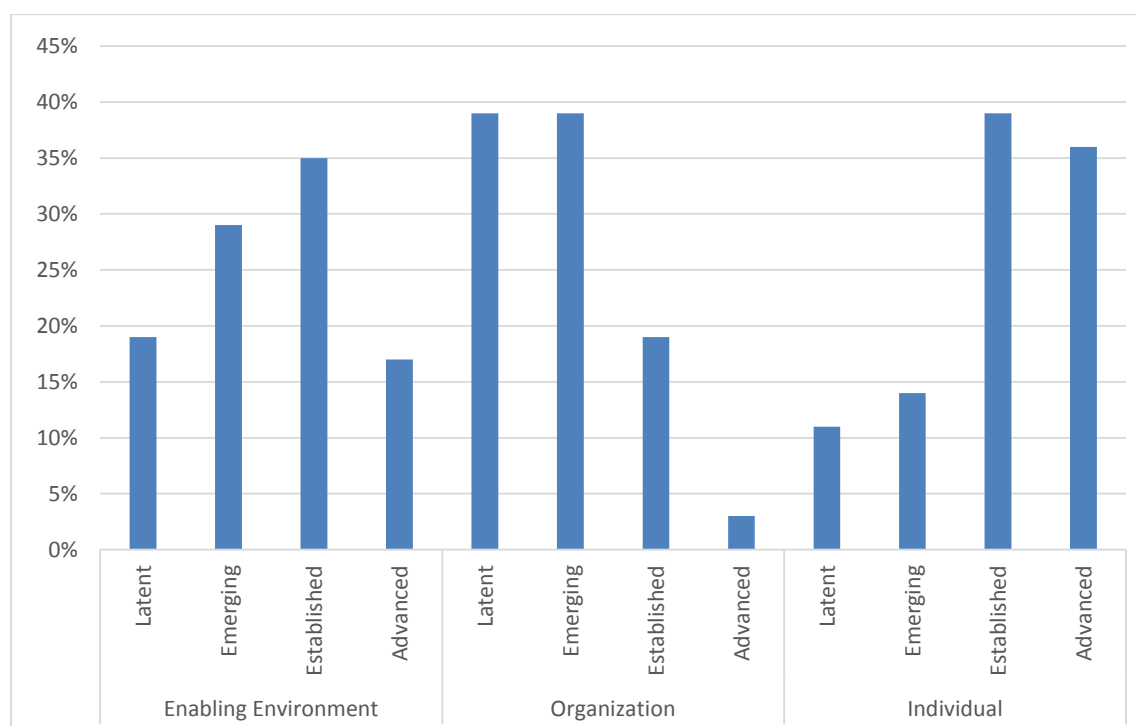
After the information from the initial stage of interviews and document reviews was consolidated and summarised, the main findings were presented to key stakeholders for verification. Additional information that was collected at this stage includes the desired capacity targets for each element and information about resources available to support capacity building for each element. This information supports the development of a national capacity building plan that addresses the needs identified in the CNA.

3. Summary of the Capacity Needs Analysis

This section summarises the current capacity as it relates to general capacity to implement the PISA for Development project requirements and realise the five PISA for Development programme outputs and as benchmarked against the PISA standards and the SABER rubrics. The completed needs analysis rubric for Cambodia, which also illustrates the structure of the CNA framework, is included in Annex A. The tool for exploring and modifying the framework, and facilitating the data entry and summarisation process, can be found at <http://polymetrika.ca/PisaForDev/>. The material in Annex A is a direct export from this web-based tool.

The general status of Cambodia's current capacity indicates wide disparities across CNA dimensions, illustrated in Figure 1.

Figure 1. Summary of ratings for CNA elements, by CNA dimension



Current capacity in both the Enabling Environment and Individual dimensions is likely adequate for implementation of PISA-D, with many individual ratings at Established and Advanced. The public policy context supports large scale student assessment and use of data to inform policy. This support is reflected throughout the larger stakeholder community, although there is some debate over how different international assessment opportunities should be prioritised. A notable exception to the generally positive findings in the Enabling Environment dimension is the lack of support for implementation of Strand C.

Few stakeholders see sufficient benefit from data about out-of-school 15-year-olds to justify the potential cost and errors associated with the exercise.

In the Individual dimension, key competencies related to data collection and processing, analysis and reporting are present within MoEYS at skill levels comparable to many countries already participating in PISA. Different departments of the MoEYS have demonstrated success in conducting national and international LSA as well as producing academic research using modern statistical methods, which suggests that Cambodia has access to the requisite individual-level competencies to satisfy the demands of PISA-D implementation.

In contrast to the Enabling Environment and Individual dimensions, the Organisation dimension has numerous and substantial limitations, with most capacity ratings at Latent and Emerging levels. The capacity limitations relate to both physical resources and organisational structure. Unless these capacity limitations are addressed, they will significantly reduce the likelihood of satisfying the PISA data quality standards and meeting the timing milestones of the international PISA-D implementation plan. Although Cambodia has many private sector resources that may be used to cover institutional deficiencies for short term implementation, over the longer term, these capacity issues risk the sustainability of the PISA-D programme in Cambodia.

3.1. Enhanced contextual questionnaires and data-collection instruments (Strand A)

With the project implementation support that is planned by the OECD and local investments in physical resources, Cambodia will likely be able to implement Strand A successfully. The National Centre has sufficient technical capacity to understand and apply the protocols and standards required by PISA-D. Cambodia has well-developed public examinations system and has implemented an annual large-scale survey-based assessment for almost a decade. The primary demands of Strand A are similar to the demands of these existing activities. Where the protocols of PISA-D require additional effort or diligence, the increased requirements are typically incremental adjustments to existing practices, rather than completely novel practices.

There is a large stakeholder community in Cambodia that will be able to use the information provided by PISA-D. This community has diverse needs and interests, and previous efforts at large-scale data collection have not been well co-ordinated between the different stakeholders. The National Centre will need to facilitate multilateral discussions with stakeholders to ensure that *a)* PISA-D is collecting data relevant to the stakeholders' interests, and *b)* they are adequately engaged in the results dissemination strategy.

The most significant limitation in capacity to implement Strand A is the lack of physical resources available to the National Centre for processing and storage. There are three types of resources that are currently insufficient to enable the programme implementation: 1) secure data processing environments, 2) secure storage spaces, and 3) training facilities. The National Centre currently does not have adequate access to these resources to satisfy the PISA standards.

The National Centre's current IT infrastructure is desktop-based, where individual staff store files on local hard drives using non-standard file structures and naming conventions. Each individual is responsible for acquiring and installing necessary software, including antivirus and malware protection, and many computers used to perform project-specific work are also personal computers. The absence of a standard file architecture makes it difficult for individuals to collaborate. This problem is exacerbated by the necessity of transferring copies of files between computers, which makes version tracking difficult and increases the risk of virus transmission.

Transferring the National Centre’s IT infrastructure from its current independent desktop-based architecture to a secure networked architecture will not require substantial capital investment. In general, access to computing infrastructure and data connectivity are high in Cambodia. Therefore, it should be relatively straightforward to adapt and implement the necessary PISA-D protocols using a combination of local expertise, local suppliers and web-based service providers.

The issues related to physical space limitations will require direct intervention and support from higher levels of management within MoEYS. Although other MoEYS departments may have the required facilities, these facilities are not currently available to the National Centre. The physical facilities of EQAD are expected to change within 2015. It is not clear at the time of this review how extensive the resources of the new facilities will be.

Regarding adaptations and enhancements to the instruments themselves, there are many institutions, both within MoEYS and among Development Partners and NGOs that are actively conducting research in the education sector. Many of these organisations have experience adapting international instruments to the Cambodian context. There are also many high-quality private sector translation service providers available. These organisations and service providers have existing relationships with the National Centre.

The National Centre’s existing resources focus more on reporting rather than PISA-style survey research. Therefore, if new content is to be added to the instruments, the National Centre will require close collaboration with an institution with more experience in secondary data analysis. The most likely candidate is the Educational Research Council (ERC), or, more specifically, the Faculty of Education at the Royal University of Phnom Penh (RUPP). This collaboration will also be necessary to properly utilise the PISA-D data to address different information needs of stakeholders.

Concurrent with the implementation timeline of PISA-D, Cambodia is also implementing an enhanced Education Management Information System that also includes data describing the quality of the educational context of schools (QEMIS). The implementation of PISA-D should consider the potential to merge various data sources through the school sample frame rather than depending entirely on the PISA-D questionnaires to capture all information needed for analysis.

3.2. *Enhanced cognitive assessments (Strand B)*

As with Strand A, successful implementation of Strand B will require both the project implementation support that is planned by the OECD and local investments in physical resources. The requirements for enhancements to physical infrastructure noted in the previous section equally apply to Strand B. The production and administration of the assessments is similar to existing examinations and large-scale assessments in Cambodia. Additional requirements of PISA-D in these aspects of Strand B will simply require modifications to existing protocols. However, other aspects of Strand B, such as adaptation of cognitive items, scoring of complex performance tasks, analysis of data, and transparent reporting of results are new and will require specific capacity development.

Regarding adaptations and enhancements to the existing cognitive instruments, the National Centre has limited experience adapting international assessments to the Cambodian context. Cambodia has participated in only a single international large-scale assessment, the 2013 administration of PASEC. Instrument adaptation for that assessment did not follow rigorous procedures. Although there are many high-quality translation services available to the National Centre, the translators have no experience with adaptation of cognitive items. The translators will require specific training related to the cultural adaptation of cognitive items to ensure that the translations do not affect their psychometric equivalence.

The MoEYS has shown specific interest in learning about the PISA cognitive framework and how to develop performance tasks that are based in real-world contexts. Current discourse in the education sector in Cambodia, reflected in the curriculum policy goals of the ESP 2009-2013, emphasises the importance of knowledge and skills for life rather than focusing only on academic progression. Specifically, there is interest in skills relevant to the job market and other national needs. The PISA cognitive framework may provide a basis for adapting curriculum and instruction as well as assessment.

In terms of technical psychometric capacity, Cambodia does not currently have a critical mass or community of technical experts. Current capacity to conduct assessments using modern psychometric techniques is focused around individuals rather than institutions, and the individuals typically do not work together. Although the use of Item Response Theory and complex sample analysis are not widespread, several individuals at EQAD and RUPP have adequate technical skills to benefit from the planned capacity building activities of PISA-D. However, in order to meet the larger goals of capacity building, this capacity must be institutionalised in Cambodia so that the information can be passed to others through mentorship and strengthened through routine application.

At a strategic level, one of the issues noted by many stakeholders with the current NLSA in Cambodia is its vulnerability to political forces. Past experience with delays or suppression of assessment results has made some stakeholders reluctant to engage with the project or depend on its data for monitoring and evaluation purposes. This reluctance emphasises the need for PISA-D to be implemented with transparency and relative autonomy from political forces. The Minister recognises the importance of this issue to the credibility and sustainability of the programme. He is committed to changing the culture within MoEYS to focus on transparent reporting and use of assessment results to identify needs rather than evaluate overall sector performance.

3.3. Including out-of-school 15-year-olds (Strand C)

There is substantial interest from stakeholders in the information described by Strand C, and the proposed programme design complements the Non-Formal Education National Action Plan. However, expected difficulties and costs discouraged stakeholders from supporting the implementation of this strand. Specifically, given the challenges with identifying a target population that was both meaningful for research purposes and relevant to national interests, the consensus is that the implementation in Cambodia would be too expensive and not have any credibility.

Although there are private sector service providers who may be able to implement Strand C data collection, there is currently insufficient institutionalised government capacity to do so.

3.4. Identify peer-to-peer learning opportunities regarding PISA participation with other countries and development partners

Cambodia has two main interests in the peer-to-peer learning activities of PISA-D. First, the National Centre is interested in how other countries have developed the institutional capacity of their own National Centres. In particular, the National Centre and external stakeholders are interested in how to co-ordinate human and physical resources across the multiple institutions and create a sustainable human resource strategy to maintain technical capacity. In general, many stakeholders are also interested in seeing how other countries have leveraged their PISA experiences to improve curriculum, instruction and other large scale assessment practices.

The relationship between the EQAD and the MoEYS is closer and more hierarchical than arms-length quality assurance offices in many other countries. It would be particularly useful to Cambodia if the peer-

to-peer learning activities included the experiences of countries where the National Centres operated from within their respective government ministries.

4. Capacity development priorities

4.1. Enabling environment

The Enabling Environment for PISA-D in Cambodia is generally positive. Where specific stakeholders are not supportive of implementing PISA-D, the opposition relates to questions about the effectiveness of the programme in either building capacity or providing stakeholders with important and useful data. Based on a review of the recent history of both national and international large scale assessment activities in Cambodia, this opposition may be a natural reaction to two issues.

The first issue relates to the national assessments. Despite receiving technical support and capacity building from Development Partners (notably, the World Bank), the National Assessment of Student Learning Achievement (NASLA) did not receive sufficient political support from external and internal stakeholders to protect it from operational and suppression of results. In addition, the returns on the capacity building investment have been diminished by staff mobility and lack of attention to within-country peer learning opportunities. As a result, it may be difficult for stakeholders to support PISA-D without assurances that the National Centre will be able to operate with autonomy and extend the benefits of capacity building activities to other parts of the education sector.

The second issue relates to Cambodia's previous experience with international assessment, the 2012 administration of PASEC. Cambodia's participation in PASEC was successful and the results were reported in a timely fashion, but the impact on policy or discourse in the education sector is practically non-existent, and the implementing agents do not report any capacity development as a consequence of their participation. In contrast, many NGO's in Cambodia that support specific interventions also collect data using their own monitoring and evaluation tools. Most of these organisations are satisfied with the performance of their instruments and actively use their data to inform decision-making and report to other stakeholders. In light of this contrast, some stakeholders may question the efficiency of committing to another international assessment.

Both of these issues may be addressed with greater direct engagement of key stakeholders. The MoEYS has endorsed the creation of a Steering Committee to oversee the implementation of PISA-D. The Steering Committee would be chaired by the Minister, and membership would include senior bureaucrats representing government departments (including Ministry of Labour and Vocational Training and Ministry of Finance), Development Partners and invited experts. The Steering Committee would not be responsible for any implementation tasks, but would ensure that stakeholders' interests are represented throughout the programme implementation. The Steering Committee would develop the overall strategic direction for the programme and co-ordinate it with other initiatives.

At an operational level, the main challenge of the Steering Committee will be to exert sufficient pressure on the various departments within the MoEYS to commit to the success of the programme. The general operations of PISA-D clearly fall within the mandate of EQAD. However, the programme will not be successful in meeting its goals without the collaboration of several departments, including Curriculum, Higher Education, and Secondary Education (Examinations). To unify many of these departments, stakeholders will need to understand how PISA-D can inform national priorities such as the "skills for life" curriculum focus. Clear direction from the Steering Committee will minimise issues related to interdepartmental authority and hierarchy.

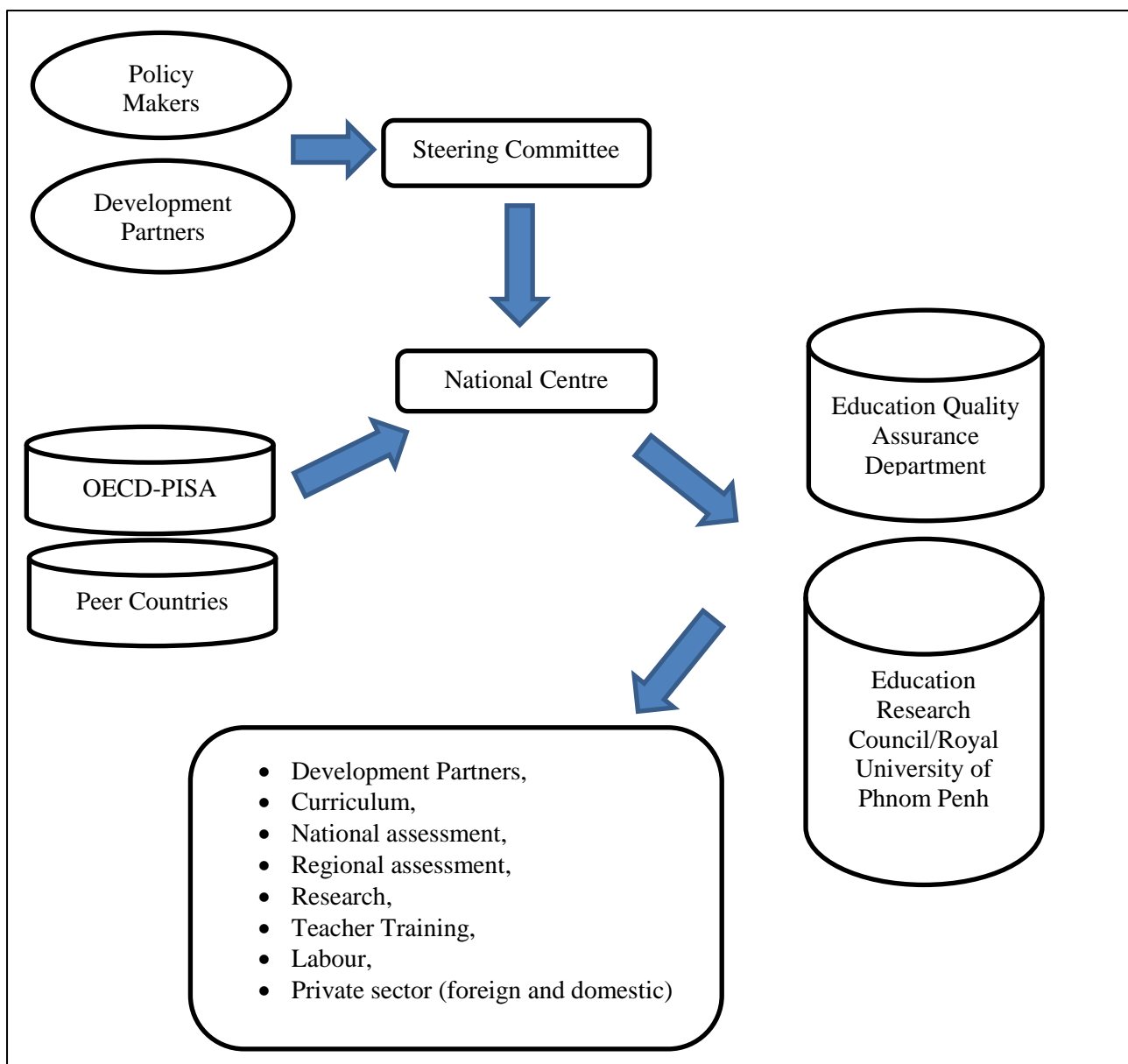
Ideally, this operational model would also include relevant departments within the Ministry of Labour and Vocational Training. However, initial consultations suggest that such a collaboration may be too complex to function.

4.2. Organisation

Across MoEYS, sufficient capacity exists in the Organisation dimension to implement PISA-D, but allocating this capacity to the project is not straightforward. As of the writing of this report, Cambodia has not yet formally designated a PISA National Centre through a signed Participation Agreement with the OECD. National Project Managers have been assigned, but the difficulty in designating a National Centre relates to the absence of a single institution with staff having both the skills and authority required to implement PISA for Development.

Conceptually, the responsibilities of the Education Quality Assurance Department (EQAD) have the closest fit to the activities of PISA for Development; EQAD has managed all NLSA activities and participates to varying degrees in all past and proposed ILSA activities in Cambodia. However, this institution does not currently have the capacity to conduct PISA-D. The current technical capacity of EQAD is represented by a single person, Mr. Chinna Ung, who is already performing both technical and managerial responsibilities related to core EQAD activities and is also the Deputy National Project Manager for PISA-D. A specific solution that allows the National Centre to co-ordinate human and physical resources will be needed to facilitate PISA-D implementation. The MoEYS endorsed the model illustrated in Figure 2, which was proposed during the second CNA consultation stage.

Figure 2. Stakeholder collaboration model for PISA-D implementation



At the top of Figure 2, government policy makers and Development Partners are represented in the Steering Committee. Beneath the Steering Committee, the National Centre forms the hub connecting national and international implementing agents of PISA-D. On the left, international agents, such as the OECD and peer countries, provide expertise and capacity building opportunities. On the right, the national agents primarily responsible for implementing PISA-D will also act as the repositories for long-term capacity building and institutional knowledge. These national institutions then support the longer term needs of the broader stakeholder community in Cambodia, which will include local capacity building.

The National Centre would benefit most from international capacity building activities that focus on how to leverage human and financial resources to manage large-scale assessment projects across multiple organisations. If other countries have project management templates that have been useful in contexts

similar to Cambodia's, instruction on how to use and adapt the templates would be very useful to PISA-D and other assessments.

4.3. Individual

As with other countries participating in PISA-D, the current level of individual capacity is comparable to the initial levels of countries who have already successfully participated in PISA. Moreover, Cambodia has recently received support in the form of technical assistance from the World Bank specifically to enhance technical capacity related to large scale assessment. The CNA revealed several areas where the PISA-D capacity building exercises can augment and complement the World Bank assistance:

- sample design
- instrument development
- development and implementation of protocols for data collection and security
- statistical analysis and data visualisation

There are also two areas related to PISA-D where Cambodian stakeholders have noted the need for development:

- understanding the PISA cognitive framework
- knowledge mobilisation and the production of policy research

The first area reflects the goal to increase the relevance of the education sector to the job market and other national needs. This priority may be best addressed by cognitive specialists who work directly with the review and development of PISA cognitive items. The second area reflects the need to ensure that PISA-D can adequately address the information needs of stakeholders. This priority may be addressed through a combination of peer-to-peer learning and direct consultation with experienced policy researchers.

5. Next steps

Using the findings noted in this report, the National Centre has developed a preliminary capacity building plan. This preliminary plan has been costed and roughly scheduled across the current proposed PISA implementation timeline. The National Centre has submitted this plan, along with a preliminary programme implementation budget, to the Minister for review and approval. Based on feedback from MoEYS leadership regarding funding (and conditional on signing the Participation Agreement), the National Centre will further refine the plan based on additional information regarding the scope of work of the various PISA International Contractors. These capacity building elements will then be incorporated into Cambodia's PISA-D Project Implementation Plan.

REFERENCES

- Clarke, Marguerite (2012), *What Matters Most for Student Assessment Systems: A Framework Paper*, The World Bank, Washington, DC, <https://openknowledge.worldbank.org/bitstream/handle/10986/17471/682350WP00PUBL0WP10READ0web04019012.pdf?sequence=1>.
- Kingdom of Cambodia Ministry of Education, Youth and Sport (2014a), “Achievements of Education, Youth and Sport Sectors academic year 2013-2014”, ASEAN – KOREA Education Fair, Busan, December 11-12, 2014.
- Kingdom of Cambodia Ministry of Education, Youth and Sport (2014b), “Education Strategic Plan 2014-2018.”
- Kingdom of Cambodia Ministry of Education, Youth and Sport (2014c), “EMIS Master Plan 2014-2018.”
- Kingdom of Cambodia Ministry of Education, Youth and Sport (2010), “Education Strategic Plan 2009-2013.”
- Kingdom of Cambodia Ministry of Education, Youth and Sports (2008), “Non-Formal Education National Action Plan 2008-2015.”
- Naron, H. C. (2014a), “Keynote for the Opening of the Education Retreat 23 November 2014 at Battambang Province”, www.moeys.gov.kh/en/minister-page/141123hcn.html#.VOYPo_nF-H4.
- Naron, H. C. (2014b), “The opening of the 2nd workshop on Developing Technical Education at Secondary Level, October 30th, 2014”, www.moeys.gov.kh/en/minister-page/998.html#.VOYPO_nF-H4.
- OECD (2014), *PISA 2015 Technical Standards*, OECD, Paris, www.oecd.org/pisa/pisaproducts/PISA-2015-Technical-Standards.pdf.
- OECD (2013), *PISA for Development Project Document (with Logical Framework)*, OECD, Paris.
- OECD (2012a), *NPM Manual PISA*, OECD, Paris, France.
- OECD (2012b), *NPM Roles and Responsibilities*, OECD, Paris.
- Royal Government of Cambodia (2009), “Kingdom of Cambodia Sub-Decree on Organization and Functioning of Ministry of Education Youth and Sport, No: 84. Phnom Penh.
- Royal Government of Cambodia (2002), “Kingdom of Cambodia Policy of Non-formal Education”, No: 01 KNR. Phnom Penh.
- UNESCO (2014), “EFA Global Monitoring Report 2013/4. Teaching and Learning: Achieving quality for all”, Paris.

ANNEX A: SUMMARY OF RATINGS FOR CNA DIMENSIONS

The following Annex is a direct export of data from the PISA for Development CNA application. The structure of the information is hierarchical, nesting each PISA for Development needs analysis element within: 1) the three CNA dimensions (enabling environment, organisation, individual), 2) PISA for Development project requirements (the sequential operational requirements for implementation of PISA), and 3) the five PISA for Development programme outputs (enhanced questionnaires, enhanced assessments, out of school 15-year-olds, assessment capacity, and peer-to-peer learning). The original references for each CNA element are listed below the element description. The references describe the original source document and the numerical designation of the defining element. In documents where the elements are not enumerated, such as the NPM manual, the reference describes the relevant section heading. The rating for each element on the rubric is justified with reference to specific contextual details in Cambodia.

Table A.1. Summary of ratings for CNA dimensions

Dimension	Level	Rating Count	Percent within Dimension
Enabling Environment	Latent	9	19%
	Emerging	14	29%
	Established	17	35%
	Advanced	8	17%
Organisation	Latent	14	39%
	Emerging	14	39%
	Established	7	19%
	Advanced	1	3%
Individual	Latent	3	11%
	Emerging	4	14%
	Established	11	39%
	Advanced	10	36%

CNA Dimension 1. Enabling environment

Project Requirement 1. Designation of National Project Manager and establishment of National Centre

1. Bureaucratic efficiency

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 19.1, PISA Technical Standards: Standard 1.1, PISA Technical Standards: Standard 7.1, PISA Technical Standards: Standard 14.1, PISA Technical Standards: Standard 14.2, PISA Technical Standards: Standard 15.1, PISA Technical Standards: Standard 15.2, PISA Technical Standards: Standard 15.3, PISA Technical Standards: Standard 15.4

26 – ANNEX A: SUMMARY OF RATINGS FOR CNA DIMENSIONS

Latent	Emerging	Established	Advanced
Stakeholders and NC have no direct communication		Channels for communication involve unnecessary third parties	Communication channels allow direct institutional access between NC and stakeholders

Justification: The National Centre must initiate communications with external institutions through Director General-level communication between institutions. Once the protocols and inter-institutional relationships have been defined at the senior management level, operational staff may communicate directly. Decisions related to shifts of strategic planning and policy between institutions must be made at the Director General level or higher.

2. Efficiency of communication protocols

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.1, PISA Technical Standards: Standard 14.1, PISA Technical Standards: Standard 14.2, PISA Technical Standards: Standard 15.1, PISA Technical Standards: Standard 15.2, PISA Technical Standards: Standard 15.3, PISA Technical Standards: Standard 15.4, NPM Manual: Communication (NPM/NC responsibilities)

Latent	Emerging	Established	Advanced
NPM is not able to engage directly or indirectly with key stakeholders	NPM can engage stakeholders but only indirectly	NPM can engage but in a formal or subordinate role (i.e., with restricted transparency of communication)	NPM can engage most stakeholders as a peer

Justification: The NPM can communicate with stakeholders directly. The Director General must be fully briefed on the on substance of external communications, but neither briefing nor approval are required prior to communication, with the exception of communications that represent proposed changes to policy or operating relationships between institutions.

3. Communication with stakeholders

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 19.1, PISA Technical Standards: Standard 1.1, PISA Technical Standards: Standard 7.1, PISA Technical Standards: Standard 14.1, PISA Technical Standards: Standard 14.2, PISA Technical Standards: Standard 15.1, PISA Technical Standards: Standard 15.2, PISA Technical Standards: Standard 15.3, PISA Technical Standards: Standard 15.4, NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
No regular communication between NC and stakeholders	NC interacts with a network of contacts representing each stakeholder organisation	NC provides regular updates or bulletins to stakeholders	NC has regular meetings or accessible forums with stakeholders for two-way discussions

Justification: There is currently no system or network for the National Centre to communicate with stakeholders on a regular basis. However, the MoEYS is currently exploring a proposal to institute a national steering committee that will provide oversight for a wide variety of LSA activities, including the National Assessment and PISA-D. The Steering Committee membership would include senior level bureaucrats from stakeholder departments and ministries within government, as well as Development Partners and external scientific advisors. The National Centre would report directly to the Steering Committee.

4. Scheduling priority given to ILSA activities

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
NC staff are typically assigned higher priority requests related to other projects	NC staff are typically immediately attend or do not reschedule meeting requests from managers or colleagues (due to either hierarchy or open-door culture)	NC staff manage their own schedules and may reschedule ad hoc meeting requests	Administrative support for NC intercepts and schedules or co-ordinates ad hoc meeting requests on behalf of NC staff

Justification: Staff are often shared between departments, and staff are required to immediately service any requests made through hierarchical channels. The salary incentive structure for the public sector does not encourage individual commitment to time-sensitive or time-intensive projects. Individuals will pursue work opportunities based on how advantageous it may be to their careers or if the project offers the opportunity to augment their base civil service salary through consultant or service contracts with external agencies, particularly NGO's or Development Partners. In general, public sector employees will give higher priority to socially visible activities or activities with additional compensation.

5. Stability of NLSA programme

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC1

Latent	Emerging	Established	Advanced
No NLSA exercise has taken place.	The NLSA has been operating on an irregular basis.	The NLSA is a stable programme that has been operating regularly.	

Justification: The National Assessment is conducted annually, rotating between grades 3, 6 and 8. A NLSA of some form has been in existence in Cambodia since 2007. The first incarnation of the programme was a development project supported by the World Bank. The current NLSA, the National Assessment of Student Learning Achievement (NASLA), was instituted in the Education Strategic Plan, 2009-2013 (MoEYS, 2019), which establishes it as a core activity funded directly through the national budget. The programme has since been reiterated in the subsequent Education Strategic Plan, 2004-2018. The NASLA is implemented by the Education Quality Assurance

Department (EQAD) of the MoEYS. Although the ESP defines the target grades levels for the NASLA, the Minister has noted that the programme exists to serve the needs of government, and the target grade or age levels may be modified to suit changing government needs.

6. Having regular funding for NLSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC3

Latent	Emerging	Established	Advanced
There is no funding allocated to the NLSA.	There is irregular funding allocated to the NLSA	There is regular funding allocated to the NLSA	

Justification: A line item is established in the national annual budget for the NLSA.

7. Adequacy of NLSA funding

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC3

Latent	Emerging	Established	Advanced
	Funding covers some core NLSA activities: design, administration, analysis or reporting.	Funding covers all core NLSA activities: design, administration, analysis and reporting.	

Justification: All activities related to the NASLA are paid through the budget allocation. Where additional work is required by the NASLA, the person-hours do not receive an additional budget allocation; the additional work is assumed to be within the scope of work of the individual civil servants engaged with the programme.

8. NLSA research and development funding

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC3

Latent	Emerging	Established	Advanced
	Funding does not cover research and development activities.		Funding covers research and development activities.

Justification: To date, there has been no additional research conducted using the NASLA. The EQAD does not have any mechanisms to absorb resources that may be allocated to perform research and development work, because those activities are not considered part of the department's activities and there are no available human resources to conduct additional research and development work.

Individual development projects, funded by the World Bank, have supported research and development related to technical capacity in implementing the NASLA. However, there is no formal or government-supported secondary research agenda for the NASLA.

9. Autonomy of NLSA structures

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC4

Latent	Emerging	Established	Advanced
	Political considerations regularly hamper technical considerations.	Political considerations sometimes hamper technical considerations.	Political considerations never hamper technical considerations.

Justification: As of the writing of this report, the MoEYS, and the Minister, His Excellency Dr. Hang Chuon Naron, are actively developing a culture where transparency and technical correctness are given priority of political considerations. However, until recently, the priorities were reversed, which has resulted in complete suppression of the results of the National Assessment activities since their inception. Despite the recent changes, there is some residual sensitivity to political issues with some stakeholders and middle managers that may result in some findings or issues being suppressed from dissemination. The situation is rapidly evolving situation following the implementation of changes to the public examinations system in 2014 that increased the transparency and objectivity with which assessment data are collected and reported.

10. Accountability of LSA structures

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA: NLSA

Latent	Emerging	Established	Advanced
	The NLSA office is not accountable to a clearly recognised body.	The NLSA office is accountable to a clearly recognised body.	

Justification: The Education Quality Assurance Department falls within the MoEYS bureaucratic hierarchy, but the EQAD activities are not directly supervised by any specific individual or supervisory body outside of its own management structure. External audits, if they occur, are primarily financial and not related to quality or relevance of work.

11. Relevance of NC expertise

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA: NLSA

Latent	Emerging	Established	Advanced
There is no staff allocated for running a NLSA.	The NLSA office is inadequately staffed to effectively carry out the assessment.	The NLSA office is adequately staffed to carry out the NLSA effectively, with minimal issues.	The NLSA office is adequately staffed to carry out the NLSA effectively, with no issues.

Justification: The EQAD does not receive sufficient institutional support to develop and maintain core competencies. Out of the current five staff members engaged with the NASLA, only one, the project manager, has the technical competence to conduct key operations. All other staff provide administrative support only. IF additional technical resources are required, they must be external consultants, typically hired indirectly through Development Partners, or staff may be loaned between government departments within MoEYS. Where key project staff must be recruited from other departments, the project timeliness may suffer if the staff have competing priorities, because performance priorities are determined by formally-defined job responsibilities rather than project-specific responsibilities. Another weakness of using interdepartmental expertise is the tendency of busier departments to allocate less productive staff to interdepartmental activities in order to maximise the efficiency of their department-specific activities. The result of this tendency is increased risk to the project's timeliness and effectiveness.

12. Experience in planning, organising and conducting large-scale surveys

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA: NLSA

Latent	Emerging	Established	Advanced
The country/system does not offer opportunities that prepare individuals for work on NLSA.		The country/system offers some opportunities to prepare individuals for work on the NLSA.	The country/system offers a wide range of opportunities to prepare individuals for work on the NLSA.

Justification: In the past, specific short-term programmes by Development Partners (e.g., World Bank) supported capacity building in item writing and LSA methods. These capacity building activities tend to be ad hoc and are driven more by the availability of external funding to support specific activities rather than the identification of specific capacity building needs. Individuals find it difficult to participate in and learn from training opportunities related to anything other than the job they are currently performing for two reasons. First, there is no incentive to participate in additional training that is not related to existing responsibilities, because there are no clear career paths associated with LSA. Second, training workshops must be held outside the daily travel range of offices, in order to justify any external incentive (e.g., travel or accommodation per diem) and avoid interruptions in the training coming from bureaucratic responsibilities. When training opportunities do arise, there are protocols for selecting and verifying people to be involved in the NLSA process. However, individuals typically do not self-nominate for participation and there is no requirement to demonstrate existing need or deficiency in capacity in order to justify participation.

13. Experience in planning, organising and conducting international assessments

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA: ILSA

Latent	Emerging	Established	Advanced
The country/system has not participated in an ILSA in the last 10 years.		The country/system has participated in at least one ILSA in the last 10 years.	The country/system has participated in two or more ILSA in the last 10 years.

Justification: Cambodia participated in PASEC in 2012.

14. Having regular funding for ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC2

Latent	Emerging	Established	Advanced
There is no funding for participation in ILSA.	There is funding from loans or external donors.	There is regular funding allocated at discretion.	There is regular funding approved by law, decree or norm.

Justification: The PASEC participation was funded almost entirely by the international implementing agency, CONFEMEN. Similarly, participation in PISA-D depends largely on external, project-specific funding, most likely through the World Bank or a collaboration between Development Partners, such as the Global Partnership for Education (GPE).

15. Adequacy of ILSA funding

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC2

Latent	Emerging	Established	Advanced
	Funding covers some core activities of the ILSA.	Funding covers all core activities of the ILSA.	

Justification: For PASEC, all activities paid for by disbursement were covered by the project funding. The position of MoEYS with respect to PISA-D funding is that, when the government commits to participating in PISA, all core activities will be guaranteed funding, even if the shortfalls from Development Partner funds are made up by reallocations from other activities in the national budget.

16. ILSA research and development funding

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC2

Latent	Emerging	Established	Advanced
Funding does not cover research and development activities.			Funding covers research and development activities.

Justification: Previous implementation of PASEC did not include any research and development activities, and the current in-country budget for PISA-D, which includes research and development activities, has not yet been allocated.

17. Data quality of ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: AQ1

Latent	Emerging	Established	Advanced
Data from the ILSA has not been published.	The country/system met sufficient standards to have its data presented beneath the main display of the international report or in an annex.	The country/system met all technical standards required to have its data presented in the main displays of the international report.	

Justification: Cambodian results were published in the 2012 PASEC results.

Project Requirement 2. Compiling and confirming information on schools and students for the definition of the assessment population

18. Geography and climate obstacles

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA for Development Document

Latent	Emerging	Established	Advanced
Large segments of the population are inaccessible to data collectors	Quality of transportation networks deny access of data collectors to certain regions	Quality of transportation networks limits the ability to reach certain regions under certain weather conditions	All regions are accessible

Justification: Seasonal flooding and inclement weather make some regions inaccessible. This issue affects remote schools with unpaved and narrow roads and some islands during windy weather.

19. Security issues with data collection

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA for Development Document

Latent	Emerging	Established	Advanced
Lack of security prevents data collection for large segments of the population	Civil unrest makes certain regions inaccessible to data collectors	Civil unrest requires additional security to ensure the safety of personnel and integrity of data in certain regions	All regions are accessible

Justification: There are no conflicts or pervasive criminal activity that restrict data collection activities.

20. Effect of political climate on implementation

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA for Development Document

Latent	Emerging	Established	Advanced
Political conflict prevents project from proceeding	Political tensions introduce bureaucratic difficulties which reduce the ability of NPM to reach consensus with stakeholders or meet timelines	Political climate does not adversely affect the project	All relevant political bodies (government and opposition) actively support the project

Justification: There may not be universal political support for participation in PISA-D, but parties that do not support the project do not have the authority or influence to adversely affect the success of the project.

21. Scheduling conflicts due to local political activities

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA for Development Document

Latent	Emerging	Established	Advanced
Regional resources are not available due to conflicting or uncertain availability	Uncertainty over the timing of magnitude of political events results in inability of individuals, institutions, or regions to commit to participating in PISA	Use of common resources (schools, teachers/ head teachers) causes scheduling conflicts with implementation of PISA in schools	Political schedule does not adversely affect the project

Justification: Typically, political activities are scheduled in July, when schools are out, so there would be no competition for school resources during PISA data collection. However, political campaigning does use school resources, and there is only a 30-day minimum notification for elections, so there will need to be a window for data collection that can accommodate, at most, a 50-day data collection window. This window is allowable under the proposed PISA-D implementation schedule.

22. Reliability of student attendance

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.10

Latent	Emerging	Established	Advanced
Student attendance is irregular and/or not monitored	Student attendance is monitored but vulnerable to out-of-school factors (work, weather)	Student attendance is regular but without formal monitoring	attendance is monitored, enforced and regular

Justification: Regionally, some students are working in agriculture during rainy or harvest season. The rainy season runs from May to October, and the harvest season runs from November to February. The sample design should accommodate systematic absences of students for these reasons and schedule data collection to minimise the impact of expected absences.

23. Quality of school sample frame

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.6, PISA Technical Standards: Standard 9.3, PISA Technical Standards: Standard 16.1

Latent	Emerging	Established	Advanced
No EMIS or equivalent to provide a school sampling frame	EMIS is present but is not easily accessible for confidentiality or bureaucratic reasons	EMIS exists and is accessible but is not updated regularly or the frame is inaccurate (missing schools or have schools that don't exist)	EMIS is updated annually with an accurate frame

Justification: The EMIS is updated annually and is considered complete and accurate. The EMIS Office presently lacks data on the vocational and skills subsector, higher education, assessment and financial data which are stored in other departments. The vocational and skills data is presently in the Ministry of Labour and Vocational Training, MoEYS Department of Planning. These data will need to be shared with the National Centre to develop the Strand A/B sample frame.

24. Level of detail in administrative student data

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.6, PISA Technical Standards: Standard 9.3, PISA Technical Standards: Standard 16.1

Latent	Emerging	Established	Advanced
No student data (e.g., grade, age) is available for individual schools	Student data (e.g., grade, age) is recorded in aggregate at the school level	Students are identifiable in central records by name and school	Students have profiles and personal identification numbers that persist across grades and schools

Justification: The school inspectorate is starting to collect individual student information, but the information is still only available at local schools. There is no technical mechanism at central offices of EQAD to facilitate storing information about individual students centrally.

25. 15-year-old census

Programme output: Including out-of-school 15-year-olds

References: PISA for Development Document

Latent	Emerging	Established	Advanced
No information is available about out-of-school 15-year-olds	Information about out-of-school 15-year-olds is available from data sources updated with >5 year frequency	Information about out-of-school 15-year-olds is available from data sources updated with 2-5 year frequency	Information about out-of-school 15-year-olds is available from data sources updated annually

Justification: The latest census (conducted with 10-year frequency) was conducted in 2008, with sample-based verification update in 2013. The census data do not identify if someone is in school or not. Provinces report annually the numbers of students from each province that are not in school. Each school in the EMIS records the number of students by age and grade. Using this information, it is possible to estimate the number of students who have dropped out at a school or regional level.

26. Location of 15-year-olds

Programme output: Including out-of-school 15-year-olds

References: PISA for Development Document

Latent	Emerging	Established	Advanced
No information is available about geographic location of 15-year-olds	Information about location is at regional levels (e.g., number of 15-year-olds in each province)	Information about location is at community or district levels (e.g., number of 15-year-olds in each community)	Information about location includes household addresses of 15-year-olds

Justification: Out of school youth are highly mobile and tend to cross many geographic boundaries. This mobility is higher for youth who are in the labour force.

Project Requirement 3. Stipulation of languages in which assessment materials will need to be available

27. Information on student language of instruction

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 2.1

Latent	Emerging	Established	Advanced
No student records are available	Student records are centrally stored but do not store dominant language of instruction	Student files contain language of instruction	Student files contain language of instruction for each subject

Justification: All students are taught all subjects in the same language, Khmer, or, where the subject is a specific language (e.g., English), the language of instruction is a combination of the subject language and Khmer.

28. Information on school language of instruction

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 2.1

Latent	Emerging	Established	Advanced
No EMIS	School information is centrally stored but without language of instruction		School information contains predominant language of instruction

Justification: School language is effectively constant across all schools with the exception of institutional private schools.

Project Requirement 4. Definition of criteria for stratification of school and student samples

29. Stakeholder use of LSA data

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 19.1

Latent	Emerging	Established	Advanced
No use of LSA	stakeholders use published LSA information	stakeholders commission specialised reports	stakeholders actively mine data for specific information

Justification: Few stakeholders use government-produced LSA information for any purpose, largely because the results are not disseminated or publicised. However, most external stakeholders incorporate LSA activities as monitoring and evaluation components of their specific programmes. Although currently, there is no co-ordination between the separate assessment activities conducted by different stakeholder groups, the MoEYS is leading a process to encourage dialogue between stakeholders and produce greater alignment.

30. Clear statement of purpose for participation in NLSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC1

Latent	Emerging	Established	Advanced
There is no policy document pertaining to NLSA.	There is an informal or draft policy document that authorises the NLSA.	There is a formal policy document that authorises the NLSA.	

Justification: The National Assessment of Learning Achievement’s mandate and schedule are defined in the Education Strategic Plan. The NASLA mandate was initiated in the ESP 2009-2013 and reiterated in the ESP 2014-2018.

31. Transparent policy for NLSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC1

Latent	Emerging	Established	Advanced
	The policy document is not available to the public.	The policy document is available to the public.	

Justification: The current and historical Education Strategic Plans are available from the public MoEYS website.

32. Clear statement of purpose for participation in ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC1

Latent	Emerging	Established	Advanced
There is no policy document that addresses participation in ILSA.	There is an informal or draft policy document that addresses participation in ILSA.	There is a formal policy document that addresses participation in ILSA.	

Justification: The ESP 2014-2018 specifically mentions participation in PISA as policy goal.

33. Use of ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: AQ2

Latent	Emerging	Established	Advanced
If any, country/system-specific results and information from the ILSA are not used to inform decision making in the country/system.	Results from the ILSA are used in a limited way to inform decision making in the country/system.	Results from the ILSA are used in some ways to inform decision making in the country/system.	Results from the ILSA are used in a variety of ways to inform decision making in the country/system.

Justification: There is no evidence of any stakeholders using information produced by PASEC for any purpose, despite public availability of the results. Many stakeholders identified PASEC specifically as an example of how ILSA activities can be conducted at great expense with little to no impact on capacity, policy or practice.

Project Requirement 9. Communication and co-ordination with schools that will participate in the assessment

34. Perceptions of external survey-based large-scale assessment (LSA) of lower-level stakeholders

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.10

Latent	Emerging	Established	Advanced
No knowledge of external LSA or assume that LSA is used to evaluate specific school performance	Understand LSA is not evaluative but see it as an unnecessary disruption	Recognise a clear washback effect from the results of LSA and the policies and practices affecting learning	Recognise external uses of LSA information and make internal use of LSA results to inform policy and practice

Justification: Although there have been no public releases of NASLA results, schools who have participated in NASLA are presented with summary results of regional performance. However, there is no clear link between the results and specific government policies or recommended educational practices.

Project Requirement 14. Establishing a training plan with key staff of the NC to attend training sessions

35. Funding for NPM/NC for international training and meetings

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: International participation

Latent	Emerging	Established	Advanced
No budget or time exists for international training	Ad hoc funds are allocated, when available, to support participation in international training and meetings	Institutional participation is formally committed, with funding from a variety of sources	Dedicated funds are available for participation in international training and meetings

Justification: As of this review, no funding has formally been committed by any stakeholders to PISA-D in Cambodia. MoEYS has stated that they will ensure that the participation and implementation costs will be covered. However, given the options in scope of how each country may take exploit the capacity building activities provided by PISA-D, the commitment to funding implementation may be satisfied without significant investments in capacity building. Commitment to a comprehensive capacity building plan will require engagement of many stakeholders, both in MoEYS and Development Partners.

36. Availability of NPM/NC for international training and meetings

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: International participation

Latent	Emerging	Established	Advanced
Staff are prevented from participating due to restrictions on personal or professional travel	No time is allocated for international activities, and they are completely external to staff's institutional responsibilities	Participation is within the scope of institutional responsibilities, but in addition to regular responsibilities	Time is specifically allocated to participation in and preparation for international activities

Justification: NPM responsibilities to PISA-D are taken in addition to regular administrative and operational responsibilities within their respective departments. Other staff who will participate in capacity building activities or other international meetings will still be responsible for work activities that they would have been doing in the absence of the international travel.

Project Requirement 24. Recruitment and training of test administrators that do not have any direct relationship to the students that will be assessed and that are experienced and competent enough to carry out the testing sessions following the scripts, guidelines and procedures established

37. Household survey collection

Programme output: Including out-of-school 15-year-olds

References: PISA for Development Document

Latent	Emerging	Established	Advanced
No capacity to conduct national surveys	Public or private data collection agencies are available but do not have capacity for national survey	NC has access to service providers with national survey capacity	National centre staff already has staff or existing relationship with resources for national survey collection

Justification: The National Institute for Statistics has the capacity for household surveys, and the EMIS staff have an existing relationship with them through which they can request services. There are no protocols for involving NIS in education-related surveys, but communication channels are open and relationship is possible in principle.

Project Requirement 25. NPM develops a national dissemination plan of their country's participation in PISA for Development and the relevant results from the pilot

38. Expectations for NLSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC1

40 – ANNEX A: SUMMARY OF RATINGS FOR CNA DIMENSIONS

Latent	Emerging	Established	Advanced
There is no plan for NLSA activity.		There is a general understanding that the NLSA will take place.	There is a written NLSA plan for the coming years.

Justification: The implementation schedule for the NASLA is embodied in the Education Strategic Plan.

39. Having strong public engagement for NLSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC2

Latent	Emerging	Established	Advanced
All stakeholder groups strongly oppose the NLSA.	Some stakeholder groups oppose the NLSA.	Most stakeholder groups support the NLSA.	All stakeholder groups support the NLSA.

Justification: All stakeholders expect that the NASLA will continue to occur. Most stakeholders actively request the formal release of the results. The NASLA operations have become normalised within the EQAD, despite the lack of clear dissemination plan for results.

Project Requirement 27. The NPM provides input and guidance with regards to the policy priorities that should help determine the content and analysis presented in the country report

40. Breadth of stakeholder engagement

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 19.1

Latent	Emerging	Established	Advanced
K-12 sector only are engaged	K-12, TVET and University sector are engaged	Multiple stakeholders representing government interests are engaged	Multiple stakeholders are engaged including non-government or indirect educational stakeholders

Justification: There is little to no engagement between the TVET sector and the K-12 education sector. Cambodia has a non-formal learning policy, but the learning goals recognised by this framework do not synchronise with the curricular learning objectives of the standard curriculum. From the perspective of the TVET sector, there is no concept of essential skills (e.g., literacy, numeracy, etc.) required by labour market participants; workplace-related training is seen as either job-specific or industry-specific. Where secondary school completion is required for programme entry, it is interpreted mainly as a credential rather than representation of individual skill sets.

41. Setting clear policies for ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC1

Latent	Emerging	Established	Advanced
	The policy document is not available to the public.	The policy document is available to the public.	

Justification: Previous participation in PASEC was in line with the government priority to participate in international assessments, described in the Education Strategic Plans. The Education Strategic Plan, 2014-2018, which describes the goal of participating in PISA, is available on the MoEYS website. The participation agreement with the OECD has not yet been signed.

42. Contributions to ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: AQ1

Latent	Emerging	Established	Advanced
The country/system has not contributed new knowledge on ILSA.			The country/system has contributed new knowledge on ILSA.

Justification: Cambodia did not produce a country-specific report using the PASEC data. Participation by NPM's in international workshops related to ILSA have largely been as a recipients of information or specific skills.

43. Dissemination of ILSA results

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: AQ2

Latent	Emerging	Established	Advanced
If any, country/system-specific results and information are not disseminated in the country/system.	Country/system-specific results and information are disseminated irregularly in the country/system.	Country/system-specific results and information are regularly disseminated in the country/system.	Country/system-specific results and information are regularly and widely disseminated in the country/system.

Justification: A report that described Cambodian performance in PASEC was produced and distributed in country, but the distribution was irregular and not to all stakeholders. Currently, the only access to the report is through PASEC directly.

44. Feedback from ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: AQ2

Latent	Emerging	Established	Advanced
Products to provide feedback to schools and educators about the ILSA results are not made available.		Products to provide feedback to schools and educators about the ILSA results are sometimes made available.	Products to provide feedback to schools and educators about ILSA results are systematically made available.

Justification: No contact was made with any schools regarding the results. Presentations were only made to high level bureaucrats in MoEYS.

45. Media coverage of ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: AQ2

Latent	Emerging	Established	Advanced
There is no media coverage of the ILSA results.	There is limited media coverage of the ILSA results.	There is some media coverage of the ILSA results.	There is wide media coverage of the ILSA results.

Justification: There was no media coverage of the PASEC by media. No formal public release was made to the media of the results. There is a media communication office in the ministry that is responsible for communicating with print, radio, and television and another office is responsible for web communication (Department of Information and Asian Affairs, MoE). The Information Office is responsible for determining what information gets disseminated based on their judgment of what is interesting and what is politically sensitive. These filters would likely be applied to any ILSA results, which implies the need for broad stakeholder engagement to protect the integrity of reporting PISA-D results.

46. Positive washback of ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: AQ2

Latent	Emerging	Established	Advanced
It is not clear that decisions based on ILSA results have had a positive impact on students' achievement levels.			Decisions based on the ILSA results have had a positive impact on students' achievement levels.

Justification: No reference is made to PASEC or its consequences in formal documents or anecdotal records. Evidence-based decisions are not common; historically, decision-makers reference personal experience for decision making and advice, rather than use specific research findings. The current Minister is actively changing the culture of decision making in MoEYS to use empirical evidence to support and inform decision making. In order for these initiatives to be successful, decision-makers will need reliable data sources that provide information that is relevant to their decision processes.

47. Learning needs for non-academic outcomes

Programme output: Enhanced cognitive assessments for below-baseline proficiency levels in PISA

References: PISA for Development Document

Latent	Emerging	Established	Advanced
No attention given to non-academic skills		Trade/vocational training sector defines foundational skills for occupational training	Framework exists for key adult competencies relevant to local context (including economy, citizenship, etc.)

Justification: The life skills curriculum has been introduced that defines foundational skills in K-12, but there is poor definition and no instructional resources. For trade vocational sector, there are more detailed programme requirements, but they are not well publicised. The trade vocational strand in upper secondary is being developed, but is not yet implemented. There is substantial interest on the part of the Curriculum Department, MoEYS, in learning from the PISA cognitive framework to develop instructional and continuous assessment material to foster ‘knowledge and skills for life’ rather than simply academic knowledge.

CNA Dimension 2. Organisation*Project Requirement 1. Designation of NPM and establishment of National Centre*

48. Having strong organisational structures for NLSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: EC4

Latent	Emerging	Established	Advanced
There is no NLSA office, ad hoc unit or team.	The NLSA office is a temporary agency or group of people.	The NLSA office is a permanent agency, institution, or unit.	The NLSA office is an independently-funded agency, institution, or unit.

Justification: The EQAD is a permanent institution within the MoEYS. The EQAD is also responsible for implementing and reporting results of schools inspections.

49. National co-ordinator for ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC3

Latent	Emerging	Established	Advanced
There is no team or national/system co-ordinator to carry out the ILSA activities.	There is a team or national/system co-ordinator to carry out the ILSA activities.	There is a team and national/system co-ordinator to carry out the ILSA activities.	

Justification: PASEC was implemented in Cambodia under the Department of Cultural Relations, MoEYS, largely to facilitate interaction with the international implementing agency, CONFEMEN. EQAD participated in the implementation of this project to co-ordinate the data collection activities, but did not take overall responsibility for the project. This structure is inadequate as a basis for future ILSA activities, because the person responsible has no operating relationship with the actual implementing agents and has no training or experience in LSA. The management infrastructure under development for PISA-D is expected to provide the bureaucratic and management structure for any future LSA in Cambodia.

50. Effectiveness of human resources for ILSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC3

Latent	Emerging	Established	Advanced
	The ILSA office is inadequately staffed or trained to carry out the assessment effectively.	The ILSA office is adequately staffed or trained to carry out the ILSA effectively, with minimal issues.	The ILSA office is adequately staffed and trained to carry out the ILSA effectively, with no issues.

Justification: There is no existing ILSA office. For PASEC, the resources for the project aggregated around the project itself. This situation is expected to change for PISA-D, which will have both a team and a management structure dedicated to the project and future LSA's. The proposed ILSA office in EQAD has only one staff member whose technical competence is strong enough to benefit from participation in capacity building activities. Other individuals who had previously developed LSA skills occupy senior management positions in other departments, which renders them unavailable as project resources. In terms of operation staff, the incentive structure for human resources in the public sector encourages performing tasks such as data entry and coding at home instead of during office hours, which is contrary to the data quality standards of PISA. The best alternate source of skilled human resources is the Educational Research Council (ERC), which is a body of academic researchers (also civil servants), employed within tertiary education institutions, primarily the Royal University of Phnom Penh (RUPP). Most of the members of the ERC have skill levels that would enable them to meaningfully participate in capacity building activities. Moreover, their collegial structure and instructional responsibilities will encourage the propagation of these skills within Cambodia. The RUPP has recently created a Faculty of Education, whose goal is to develop skills related to research and implementation of policy and targeted interventions. The student body of this faculty may also provide operational human resources for skilled/trainable activities such as data collection and coding.

51. Engagement of clerical/administrative support

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities, PISA Technical Standards: Standard 17.3, PISA Technical Standards: Standard 17.4

Latent	Emerging	Established	Advanced
Clerical support is not involved in correspondence		Clerical support distributes outgoing correspondence from NC	clerical support is the point of contact or has access to all incoming and outgoing correspondence

Justification: Project management develops plan and arranges appointment letters with external agents. Once initial contacts are established, support staff manages incoming and outgoing communication. Every department has an administrative office, which performs this role for entire department. Currently, the project support staff within the National Centre is not effective in an administrative role, which has the consequence of requiring the management staff to perform many clerical tasks. There is no mechanism to provide transportation support for distributing formal communication letters, which results in the tasks being performed by higher-level project staff rather than support staff. The support staff tend to be older and tend to be reluctant to take ownership of project roles or invest time in acquiring technical skills because there is no salary or career incentive to engage in time-consuming activities outside of their core responsibilities.

52. National Centre co-ordination

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
NC staff have no set schedule of appointments or meetings		Staff meetings are scheduled and attended regularly	Shared agendas enable regular and ad hoc scheduling of meetings

Justification: There is no formalised departmental communication and collaboration structure. Meetings tend to be ad hoc, typically in order to service ad hoc requests for information from higher levels of management.

53. Access to a reliable, high bandwidth Internet connection and e-mail facilities

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: Resources of the National Centre

Latent	Emerging	Established	Advanced
No internet access	Dialup or 56k equivalent	Reliable, high bandwidth available onsite at selected terminals	Fully networked environment with universal access to high bandwidth internet and email

Justification: Selected offices have internet access. Priority is given to higher management levels. Deputy department chief level and above have departmental email accounts, although most people also use personal web mail accounts. Internet access may be granted on an as-needed basis for lower level staff.

54. Computing environment

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: Resources of the National Centre

Latent	Emerging	Established	Advanced
Not all staff have full-time computer access	Personal computers of staff running Windows XP or later with Microsoft Office professional (2007 or later), specifically with Excel and Word applications	Personal or dedicated computers with standard software and access to the workplace network	Dedicated workplace PCs for all staff with standard software and network access

Justification: A network infrastructure exists, but it is not set up effectively, so it tends to not be used very well or at all. Operational files and data are kept on personal laptops.

55. Local capacity building for ILSA

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: SABER-SA-ILSA: SA1

Latent	Emerging	Established	Advanced
The country/system offers no opportunities to learn about ILSA.		The country/system offers some opportunities to learn about ILSA.	The country/system offers a wide range of opportunities to learn about ILSA.

Justification: Historically, no opportunities have been available. Staff would begin to learn about LSA after they are assigned a position which has responsibilities related to LSA.

Project Requirement 5. Establishing security protocols for the National Centre and for national sub-contractors

56. Accountability for security

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 8.1, PISA Technical Standards: Standard 18.2

Latent	Emerging	Established	Advanced
No consequences for breaches in security		ad hoc discipline for breach and individuals with access to secure materials are aware of the consequences of noncompliance with security protocols	Where uncontrolled access is possible, legally binding confidentiality agreements enforce the data access restrictions and apply to all staff

Justification: There are no regulations guiding security. Most of the software used in the country is pirated (estimated 90%). Effectively, there are no rules or regulations governing transfer and storage of information. Security rules are developed or implemented ad hoc.

57. A secure and comfortable space for the secure storage of completed materials following data collection

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 8.1, PISA Technical Standards: Standard 18.2

Latent	Emerging	Established	Advanced
No secure facilities are available to the NC		Repurposed storage or private office space is used to secure materials	facilities have specific security infrastructure (i.e. it is not physically possible for individuals to access secure material without it being granted by NPM)

Justification: There is currently not enough room for operational activities and storage within the current EQAD offices, so sensitive data are housed in insecure storage (typically in personal offices or unlocked storage rooms). The EQAD is expected to change physical locations prior to the implementation of PISA-D, but there is no information available about the physical resources that will be available at the new facilities.

58. Adherence to security protocols

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 8.1, PISA Technical Standards: Standard 18.2

Latent	Emerging	Established	Advanced
NC staff and partners have no experience with or no culture of security	A legal or administrative framework for accountability with respect to security exists	staff with access to secure materials receive training in security protocols	all staff receive training in security protocols

Justification: There is a statute governing punishment in the Education Act for violating security of sensitive information. Three levels of punishment are available to respond to violations: letters of reprimand, transfer/suspension and imprisonment. However, in practice, there is no application of the security protocols, and there is no security culture.

59. Security auditing

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 8.1, PISA Technical Standards: Standard 18.2

Latent	Emerging	Established	Advanced
No tracking is made of access to secure materials	List of permissions tracks access		The NPM can invoke or revoke access for any individual

Justification: Due to the storage of sensitive data on personal computers, only a limited number of people may access data. Only one person has all the data, because it resides on his computer. Currently, the mechanism for limiting access to the data relies on lack of personal gain associated with breaching security and goodwill of staff with access to data.

60. Integrity of coding

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 11.4

Latent	Emerging	Established	Advanced
	Coders are selected from bureaucratic appointments or personal networks	Coders are selected from nominated applicants using transparent criteria	

Justification: The mechanism for hiring operational staff is ad hoc, without quality or experience requirements. Hiring depends on personal knowledge of workers and their skills.

61. A secure and comfortable space for conducting the coding operations

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: Resources of the National Centre

Latent	Emerging	Established	Advanced
No facilities available	Multi-purpose facilities may be available or used for coding	Multi-purpose facilities may be secured for coding	Dedicated secured facilities are available

Justification: There may be facilities in the ministry that can be used for these activities, but their use has not been explored for this type of activity. Historically, large training activities make use of private facilities. Historically, the coders were able to take data entry tasks home with them.

62. Computing security

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: Resources of the National Centre

Latent	Emerging	Established	Advanced
Security software is limited to pre-installed software on personal or office computers	Staff are personally responsible for maintaining antivirus and software updates without supervision	Staff follow institutional policies regarding regular software and antivirus definition updates	Dedicated IT staff or network policies ensure all software updates are installed at the institutional level

Justification: There is no central IT authority at the department level to perform updates and provide security service. Certain dangerous websites are blocked by the ministry.

63. Software resources

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: Resources of the National Centre

Latent	Emerging	Established	Advanced
No mechanism for acquiring specialised software (i.e., not installed with computer at time of purchase)	Individuals may download or purchase software for their own use without support	Organisation maintains software licenses and manages acquisition and installation of necessary software	

Justification: Few individuals make use of specialised software, and specialists are required to make the purchase individually. Formal mechanisms exists through finance department, but is not used for software. Most software is acquired illicitly through bitTorrent or other file-sharing applications using personal accounts.

Project Requirement 9. Communication and co-ordination with schools that will participate in the assessment

64. Engagement of data collection agency or network with collection sites (e.g., schools)

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.6

Latent	Emerging	Established	Advanced
	System has contact information for individuals with access to school sites	Intermittent administrative contact or contact through previous LSA	Regular contact through PD and possibly including LSA

Justification: There is currently no permanent data collection infrastructure within the MoEYS. Accordingly, each new data collection activity requires developing a data collection network to engage with participating institutions.

Project Requirement 14. Establishing a training plan with key staff of the NC to attend training sessions

65. Availability of ILSA training

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: SA1

Latent	Emerging	Established	Advanced

Latent	Emerging	Established	Advanced
		Opportunities to learn about ILSA are available to the country's/system's ILSA team members only.	Opportunities to learn about ILSA are available to a wide audience, in addition to the country's/system's ILSA team members.

Justification: The only opportunities to learn about ILSA have been international training or orientation provided to individuals directly involved in the ILSA. Professors at the RUPP have expressed interest in expanding the programme of studies in the Faculty of Education to incorporate information from and about ILSA's, including PISA-D.

66. Participation in international ILSA training

Programme output: Identify peer-to-peer learning opportunities regarding PISA participation with other countries and development partners

References: SABER-SA-ILSA: SA1

Latent	Emerging	Established	Advanced
The ILSA team has not attended international workshops or meetings.	The ILSA team attended some international workshops or meetings.	The ILSA team attended all international workshops or meetings.	

Justification: Relative to the current implementation of PISA-D, the NPM's find travel difficult because the administrative burden of international is relatively large, due to both visa application processes and the difficulty managing the increased work load. The responsibilities of the NPMs' main positions are not easily delegated to other staff, so international travel may put at risk other ongoing projects. Successful project implementation of PISA-D will require efficient scheduling of international activities.

Project Requirement 24. Recruitment and training of test administrators that do not have any direct relationship to the students that will be assessed and that are experienced and competent enough to carry out the testing sessions following the scripts, guidelines and procedures established

67. Commitment of data collection staff

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.7, PISA Technical Standards: Standard 3.1, PISA Technical Standards: Standard 1.3

Latent	Emerging	Established	Advanced
Insufficient data collection staff	Data collection staff are part-time, shared with other institutions	Data collection staff are part-time, shared with other projects in the same institution	Data collection staff are specifically hired or reassigned for this role/project

Justification: Currently, there are no data collection staff. There are existing networks that have been used for large scale data collection for previous surveys, but these relationships are ad hoc and individuals do not have standardised training. In the private sector, there are firms that specialise in

survey data collection, mainly servicing NGO's or activities of Development Partners. While these resources may be employed in the short term, they do not represent a sustainable solution for PISA-D implementation unless long term arrangements can be made with MoEYS where all parties can benefit from capacity building activities.

68. Availability of training facilities

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 6.2, PISA Technical Standards: Standard 11.2

Latent	Emerging	Established	Advanced
No facilities available (self-study or one-one-one)		Existing facilities may be repurposed to accommodate training	A dedicated training environment is available

Justification: There are no specific training facilities available to the EQAD. The implementation of PISA-D will need to explore resources of other departments or private sector resources.

69. Commitment of data collectors to training

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 6.2

Latent	Emerging	Established	Advanced
There is no provision or time for training	Data collectors must volunteer time or else training conflicts with other responsibilities	Data collector time is compensated but responsibilities may conflict	Training time is compensated and is integrated with regular duties (or staff are hired exclusively for data collection)

Justification: Individual TOR of ministerial staff do not include data collection tasks, but data collectors get compensated for travel and accommodation. Resolution of conflicts in profession responsibilities is typically determined by the level of authority from which the responsibility originates. An official letter from a sufficiently high level of authority (e.g., Director General or above) authorising an individual's data collection activities may override prior or ad hoc requests from individuals' immediate management hierarchy, but if new requests have higher authority, then the new requests will take priority.

70. Avoidance of conflicting interests

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 6.3

Latent	Emerging	Established	Advanced
Hiring for data collection is treated as casual employment	The NC maintains employment records of data collectors	Employment records include subjects taught by data collectors and schools worked at	Employment framework require data collectors to disclose any potential conflict of interest

Justification: Data collectors are assigned randomly to sites, but some ministry staff may have conflicts of interest with specific data collection sites and outcomes of tests. Ministry officials involved in data collection may produce poorer quality results due to abuse of system based on insider knowledge of finance and compensation rates, allowing them to collect greater compensation while also compromising data quality. In previous data collections, ministry officials participating in data collection have used their status as representatives of the central authority to pressure school administrators into providing falsely positive reports of the quality of data collection. Some methods have been used to ensure that the schools provide confirmation directly to EQAD that collection protocols were followed. Ideally, data collectors would be trained outsiders, such as students, or professional observers, such as school inspectors.

Project Requirement 25. NPM develops a national dissemination plan of their country's participation in PISA for Development and the relevant results from the pilot

71. Providing teachers with opportunities to learn about the NLSA

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-NLSA: SA2

Latent	Emerging	Established	Advanced
There are no courses or workshops on the NLSA.	There are occasional courses or workshops on the NLSA.	There are some courses or workshops on the NLSA offered on a regular basis.	There are widely available high quality courses or workshops on the NLSA offered on a regular basis.

Justification: Current practices has been to provide private briefings of NASLA results to high-level agents within MoEYS and to report results in aggregate to individual schools that participated in the survey. However, there is no systematic or large scale plan to disseminate information produced by the survey to a broader group of stakeholders.

Project Requirement 26. Preparing and distributing testing materials to schools in a secure fashion, ensuring materials arrive safely and without suffering damage or alterations

72. Booklet distribution infrastructure

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA for Development Document

Latent	Emerging	Established	Advanced
Only ad hoc or site-specific printing resources are available		Service provider(s) or internal staff may be contracted or retasked to print and distribute booklets but must be trained with proper protocols	Existing infrastructure can be used to transport testing materials using pre-existing security protocols

Justification: Previous LSAs use ad hoc private service providers for printing. The printers do not have ability to provide security of instruments during printing or distribution. For examinations, recent protocols were introduced to print examinations directly and maintained security of instruments by using an office directly under the authority of the Minister to transport, administer and return exams to offices of the provincial authority. The new protocol involves printing answer sheet separate from the examination booklets; this practice has been found to be more secure because the examination booklets can have higher security and be delivered separately using more secure protocols.

73. Adequacy of transportation for data collectors

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.7, PISA Technical Standards: Standard 3.1, PISA Technical Standards: Standard 1.3

Latent	Emerging	Established	Advanced
	Data collectors use public or shared transportation	Data collectors use personal vehicles	Data collectors use dedicated institutional vehicles

Justification: There is no transportation provided or facilitated. Although local offices have been asked to facilitate the transportation of data collection staff (gasoline for motorbikes, taxis), budgetary restrictions prevent providing sufficient funds for transportation. The allocation for travel expenses is arbitrary and does not reflect actual costs.

Project Requirement 29. Monitoring of school and student response rates, in co-ordination with international and national contractors, as appropriate

74. Sampling responsiveness during data during collection

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.6

Latent	Emerging	Established	Advanced
no updates on sampling or non-response are provided during data collection period		updates from centralised data processing are concurrent with data collection	Daily or real-time updates on data collection are available from centralised data processing

Justification: Using central school statistics available in the EMIS, replacement schools are identified ad hoc using post-stratification and matching according to geography and number of students (replacement schools are drawn from the same strata, typically from the same community).

Project Requirement 30. Organisation of plans for local printing of assessment materials and verification of print and paper quality in all languages that will be covered, while maintaining security

75. Quality of document proofing

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: PISA Technical Standards: Standard 10.2, PISA Technical Standards: Standard 10.3, PISA Technical Standards: Standard 10.4, Publishing (NC responsibilities)

Latent	Emerging	Established	Advanced
Authors are responsible for proofing their own documents		Informal experience using individual expertise or idiosyncratic methods	Clear protocols exist for the identification of potential typographic errors and/or the NC has an agreed-upon dictionary and syntactic manual of style

Justification: Several individuals may contribute to official Ministry documents, but methods of quality control are idiosyncratic and performed by directly by the authors.

76. Availability and quality of publishing resources

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: NPM Manual: NC responsibilities, PISA Technical Standards: Standard 10.1

Latent	Emerging	Established	Advanced
No existing relationship with publishers or publishing resources		NC has access to publishers with appropriate print quality and binding options but may require several firms to accommodate volume	Dedicated outsourced publisher can accommodate the print volume in the desired time span prior to data collection or NC has in-house resources to handle publishing

Justification: EQAD does not currently have any permanent relationships with printers. However, there are many high-quality service providers available.

Project Requirement 32. Planning of the quality assurance process so that Quality Monitors visit a sample of schools during testing sessions to observe and document quality of sessions

77. Data collection monitoring

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 9.1

Latent	Emerging	Established	Advanced
Insufficient quantity of external monitors	Monitors do not receive the same training or same quality of training in data collection as data collectors (see PISA Technical Standards: Standard 6);	Selected monitors are also trained as data collectors	All monitors are trained as data collectors

Justification: The monitors participate in the data collection training. The training is exactly the same for the monitors as for the general data collectors. There is no requirement that the monitors have previously collected data. The primary requirement for being a monitor is having a sufficient level of authority within the bureaucratic hierarchy to supervise the data collectors. Senior level staff also have personal automobiles, which facilitates data collection through the ability to move larger quantities of booklets with greater security and arrive at destinations more reliably at specific times.

78. Monitoring of collection procedures

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 9.3

Latent	Emerging	Established	Advanced
	Institutions or individual stakeholders may nominate or exclude specific sites from monitoring	Replacements for exclusions are selected randomly with ad hoc exclusions	Rationale for any exclusions from site monitoring are agreed upon prior to sampling

Justification: There are no formal protocols for identifying schools for monitoring, but a general request of the EQAD is that the monitors visit the most remote schools. Instead of site visits, the EQAD office may also telephone the schools to notify people that a monitor will be used and inquire about the data collection process. However, the monitoring is often ineffective because of lack of co-ordination and actual monitoring. There is a counter-productive incentive structure from the compensation of travel; remote areas have more compensation, which encourages monitors to take remote assignments but not actually complete the visits. Telephone monitoring to verify that data collector are onsite and performing the desired activities is the only reliable method, but it is limited in terms of the richness of data that can be observed.

CNA Dimension 3. Individual

Project Requirement 1. Designation of NPM and establishment of National Centre

79. Adherence to protocol

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 18.2, PISA Technical Standards: Standard 17.5, PISA Technical Standards: Standard 1.2, PISA Technical Standards: Standard 9.2

Latent	Emerging	Established	Advanced
Staff have no experience with large scale data processing protocols	Experience carrying out specific instructions in specific contexts	Experience operating within a variety of protocols in different contexts	

Justification: The EQAD staff are adept at performing clearly specified tasks according to specific protocols. However, they do not frequently encounter tasks that require new technical skills or novel contexts.

80. Availability of NPM

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
Time is committed as required, in addition to regular responsibilities	Part time commitments from one or more people do not adequately cover the minimum PISA commitment (2 full-time equivalents). PISA responsibilities are managed through paid or unpaid overtime	Sufficient time commitments are made by NC staff to meet PISA demands, but no individuals are assigned full-time to PISA responsibilities	Sufficient person-time is allocated to PISA with at least one full-time (non-clerical) NC staff member.

Justification: Both of the NPM's have higher level management responsibilities, in addition to their expected responsibilities with respect to PISA-D implementation. In order to meet the required capacity, additional support or management staff will need to be allocated to the PISA-D project specifically or as general support for the NPM's.

81. NPM experience with dissemination of results from large scale assessment

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
Reporting of statistical results only	Reporting restricted to description of statistical tables	Reporting using narratives to relate results from separate statistical results or data sets	Reporting using multiple narratives to multiple audiences, referencing relevant data where appropriate

Justification: The only reference to the use of LSA results is the monitoring framework of Education Strategic Plan, which tracks a single statistic summarising the performance of each National Assessment to describe the progress of educational achievement.

82. NPM regularity of communication

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
NPM has no email or voicemail		NPM can access and respond to email and voicemail at least once a day	NPM can process all incoming email and voicemail each day

Justification: Communication connectivity is high, but the NPM's are often too busy with other responsibilities to manage all correspondence.

83. Skill in managing a team of project staff who carry out multiple tasks often needing simultaneous attention

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities, PISA Technical Standards: Standard 19.2

Latent	Emerging	Established	Advanced
No previous management experience	Experience managing a few people sharing common skills and responsibilities	Experience managing a many people or a team composed of individuals with diverse responsibilities and skill sets	Experience in a matrix management structure, where project team members below to different administrative hierarchies

Justification: Many large MoEYS projects, particularly those with which EQAD has been involved, require co-ordination of human and financial resources across different departments.

84. Relevance of NPM expertise

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
	Expertise is related to a technical or specialised field, such as data management, analysis, or classroom instruction	Expertise includes specialised knowledge as well as management experience	Expertise includes specialised knowledge, management experience and knowledge of government policy issues and/or international issues

Justification: Both NPM's have a working knowledge of formal government policies and priorities. Both NPM's have experience working with international colleagues.

85. Previous experience in planning, organising and conducting large-scale surveys

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
	Experience with polling or non-intensive questionnaire-based surveys or experience implementing large-scale survey	Experience with planning some aspects of large-scale assessment surveys (e.g., testing, sampling, data collection)	Experience in several aspects of large-scale surveys, including design and data collection

Justification: The EQAD has managed all NLSA activities under the same programme manager, Mr. Chinna Ung, who has performed all key technical functions, including sampling, managing data collection, data analysis, and reporting. The weakest of these technical skills is reporting, largely due to the historical lack of focus on reporting assessment results.

86. Sufficient knowledge and confidence to represent the country at international meetings where aspects of the project will be discussed

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
NPM has sufficient seniority to represent country's interests	Experience working with different stakeholder groups within country and sufficient seniority to represent country's interests	Knowledge of interests of different stakeholder groups and sufficient seniority to represent country's interests	Sufficient seniority to represent country's interests and experience interacting with different sub-national and international stakeholders

Justification: The NPM's have sufficiently direct communication with senior policy makers and stakeholders that they can represent their collective national interests in an international context. However, they do not have sufficient authority within the MoEYS that they can initiate national positions or negotiate with international agencies on behalf of the MoEYS. In the necessity of these types of interactions, the NPM's will be obliged to act as intermediaries for higher national-level authorities.

87. Knowledge of, and the confidence to deal with government agencies, school principals, parents and teachers within their own countries

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
	NPM has sufficient seniority to speak with authority on behalf of Ministry or Department	NPM has existing relationships with stakeholders within the education system	

Justification: The NPM's have personal relationships with many stakeholders and are also recognised authorities with respect to government policy implementation.

88. NPM knowledge of language of assessments

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: SABER-SA-ILSA: EC3

Latent	Emerging	Established	Advanced
	The national/system co-ordinator or other designated team member is not fluent in the official language of the assessment	The national/system co-ordinator is fluent in the official language of the assessment	

Justification: Both NPM's are fluent in Khmer and English.

89. A sufficient level of oral and written communication skills in English as all meetings and communications with the OECD Secretariat and with the International Contractor will be in English

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
	Sufficiently fluent in English to understand general concepts and non-technical issues	Sufficiently fluent in English to understand and take a position on issues presented by OECD Secretariat or International Contractor	Sufficiently fluent in English to argue a specific perspective or position and represent complex or novel issues

Justification: Both NPM's are fluent in Khmer and English and routinely communicating technical and complex issues to native English speakers.

90. Previous work experience in an education system and experience in educational assessment (desirable)

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
		Familiarity with education system in a professional context	Previous experience working within the education sector

Justification: Both NPM's are recognised authorities within the MoEYS, each with more than two decades of experience in the education sector.

91. General computing skills (e.g., Microsoft Office suite, WebEx and secure FTPs)

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
Use computers primarily for email and internet	Use computers for producing basic documents and presentations in standard word processors and spreadsheets	Use formatting conventions, edit/review functions and other shared authorship functions in office software	Use file sharing applications with versioning and complex formatting (e.g., document merges, conversion of file types)

Justification: The EQAD routinely use shared editing functions in documents and spreadsheets to collaborate with peers.

92. English proficiency

Programme output: Identify peer-to-peer learning opportunities regarding PISA participation with other countries and development partners

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
No English proficiency		English as a second language but operate professionally primarily in other language	Fluent or operate professionally in English

Justification: The typical working language is Khmer, but many formal documents and presentations are made in English. All staff, including NPM's, use English language versions of software.

Project Requirement 4. Definition of criteria for stratification of school and student samples

93. Specialised skill for scientific probability sampling

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 9.3, PISA Technical Standards: Standard 16.1, PISA Technical Standards: Standard 17.3, PISA Technical Standards: Standard 1.3, PISA Technical Standards: Standard 1.4, PISA Technical Standards: Standard 1.5

Latent	Emerging	Established	Advanced
Convenience sampling	Drawn simple random samples	Designed self-weighting complex samples (multi-stage clusters and stratification)	Designed complex samples and appropriate design weights or performed non-response adjustments to analysis weights

Justification: Previous work designing and implementing the NASLA involved designing stratified multi-stage samples, where the probability of selection of primary sampling units was proportional to population size.

94. Quality of replacement sample

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.9

Latent	Emerging	Established	Advanced
No replacement sample	Replacement sample only allows convenience	Replacement sample is random	Replacement sample provides random assignment of matched replacement(s) for each school

Justification: Replacement schools are drawn randomly using the same methodology used to sample initial schools.

Project Requirement 9. Communication and co-ordination with schools that will participate in the assessment

95. Sufficiency of data collection staff

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 1.7, PISA Technical Standards: Standard 1.8, PISA Technical Standards: Standard 3.1

Latent	Emerging	Established	Advanced
	Data collection staff is inexperienced, poorly trained, or do not have appropriate linguistic skills	There are few trained data collectors who must travel to many sites or many inexperienced or linguistically challenged data collectors	There is a sufficient number of qualified data collectors for all sites

Justification: Data collection staff historically have not been professional data collectors. Data collectors often do not understand the significance of different data collection protocols and often do not strictly adhere to the protocols.

Project Requirement 10. Communication and co-ordination with international contractors for the selection of the student samples in each school

96. Management of linked data files

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 12.1, PISA Technical Standards: Standard 12.5, PISA Technical Standards: Standard 16.2, PISA Technical Standards: Standard 17.3, PISA Technical Standards: Standard 17.5

Latent	Emerging	Established	Advanced
Data collection staff have been given instructions on the protocols	experience sorting or extracting data from files with primary keys or unique identifiers	experience performing data merges using primary and foreign keys	

Justification: Data from assessments are typically captured into multiple files, which must then be merged using common identifiers (primary and foreign keys).

97. Data manipulation skill: manipulating data structures

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 12.5, PISA Technical Standards: Standard 16.2, PISA Technical Standards: Standard 17.5, PISA Technical Standards: Standard 12.2, PISA Technical Standards: Standard 17.2

Latent	Emerging	Established	Advanced
		Staff have experience with single format data (e.g., Excel , SPSS), experience importing and exporting between proprietary formats using built-in software functions	Staff have experience constructing or parsing proprietary formatted data files and text-based data files with defined formats

Justification: In order to process data produced by proprietary scanning technology, EQAD staff must routinely convert data between different storage formats.

98. Data manipulation skill: fluency with statistical software (e.g., SPSS, SAS)

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 12.5, PISA Technical Standards: Standard 16.2, PISA Technical Standards: Standard 17.3, PISA Technical Standards: Standard 17.5, PISA Technical Standards: Standard 17.2, PISA Technical Standards: Standard 12.3

Latent	Emerging	Established	Advanced
	Limited data management skills	Data management is performed mainly using point-and-click menus	Data management is performed using syntax files

Justification: Data edits are performed manually using point-and-click menus within SPSS, but the syntax is recorded using the paste-into-syntax method provided by SPSS. Stored syntax files are then edited and rerun to replicate procedures.

Project Requirement 14. Establishing a training plan with key staff of the NC to attend training sessions

99. Familiarity with PISA skill ontology / framework

Programme output: Enhanced cognitive assessments for below-baseline proficiency levels in PISA

References: NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
	Experience instructing students with a wide range of skill profiles	Experience developing programmes for salient groups of student skills	A framework exists for identifying skill determinants and dependencies for different learning objectives

Justification: Item writers tend to focus on a relatively narrow set of skills defined by the curriculum, with tasks embedded in contexts that are similar to the context of academic instruction.

100. Item response theory

Programme output: Enhanced cognitive assessments for below-baseline proficiency levels in PISA

References: PISA for Development Document, NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
	Experience or familiarity with statistics and classical test theory	Have used item response theory in limited context (e.g., scaling dichotomous responses)	Experience with multiple item response models (e.g., polytomous, Rasch, 2PL, 3PL)

Justification: The EQAD has performed item analysis and scaling under supervision of experts consultants. The current level of expertise is not sufficient to perform these operations without explicit guidance.

101. Test development skills

Programme output: Enhanced cognitive assessments for below-baseline proficiency levels in PISA

References: PISA for Development Document, NPM Manual: NPM/NC responsibilities

Latent	Emerging	Established	Advanced
No experience developing tests or test items	Staff have experience developing tests or test items using test specifications	Staff have used classical test theory to examine item and test difficulty and discrimination/reliability	Use multivariate statistics to examine test dimensionality, item bias or differential item functioning, and test information

Justification: Use of classical statistics to determine the appropriateness of test items is a routine task in the development of examinations and national assessment instruments.

Project Requirement 24. Recruitment and training of test administrators that do not have any direct relationship to the students that will be assessed and that are experienced and competent enough to carry out the testing sessions following the scripts, guidelines and procedures established

102. Correct sequencing of administration of national options

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: PISA Technical Standards: Standard 7.2

Latent	Emerging	Established	Advanced
Data collection staff have been given instructions on the protocols	Data collection staff have been trained after PISA design has been finalised	Data collection staff have been trained using the final instruments	Final administration protocols are sequentially scripted and bound and provided with the testing materials

Justification: None of the operational staff in the National Centre have any familiarity with the PISA data collection protocols.

Project Requirement 28. Co-ordination of appropriate enhancements/adaptations/translations of instruments, manuals and guides, and field trial and verification process with international contractors

103. Fidelity of administration in local contexts

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 5.1, PISA Technical Standards: Standard 5.2, PISA Technical Standards: Standard 4.4

Latent	Emerging	Established	Advanced
Translators or staff responsible for adaptation have translated data collection protocols	Translators or staff responsible for adaptation have been trained in data collection procedures	Translators or staff responsible for adaptation have participated in data collection	Translators or staff responsible for adaptation have been trained in PISA data collection procedures

Justification: Although the translation resources have not been specifically identified for PISA-D, it is likely that the National Centre will make use of resources with experience translating or adapting other international instruments.

104. Quality of training for data collection

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 6.1

Latent	Emerging	Established	Advanced
	Data collection staff have been trained in data collection protocols	Data collection staff have participated in data collection in previous survey or training but received no guidance or feedback regarding the effectiveness or appropriateness of method	Data collection staff have been monitored during previous or mock data collection and have received feedback on their adherence to protocols during previous data collection

Justification: At a minimum, all data collection staff receive training in protocols. However, this training has not been effective in the past.

105. Effectiveness of training for data collection

Programme output: Country capacity in assessment, analysis and use of results for monitoring and improvement

References: PISA Technical Standards: Standard 6.1

Latent	Emerging	Established	Advanced
	Training consists of review of protocols that may not be standardised	Training is conducted individually	Training is conducted in group settings with role playing

Justification: Historically, training in protocols involved simply reviewing the protocols verbally. All data collection staff will participate in group training as specified in the PISA-D implementation plan.

106. Adequacy of translator assessment background

Programme output: Enhanced cognitive assessments for below-baseline proficiency levels in PISA

References: PISA Technical Standards: Standard 4.2

Latent	Emerging	Established	Advanced
Translators or staff responsible for adaptation have no experience translating or adapting test items	Translators or staff responsible for adaptation have background or experience with education or psychology	translators are experienced teachers	Translators or staff responsible for adaptation are also professional item writers

Justification: The translators will likely be general translators who may have some experience with educational material. It is likely that the translators will need to be provided with strict and explicit translation guidelines.

107. Translator knowledge of PISA framework

Programme output: Enhanced cognitive assessments for below-baseline proficiency levels in PISA

References: PISA Technical Standards: Standard 4.2

Latent	Emerging	Established	Advanced
No experience of knowledge of PISA framework		Translators or staff responsible for adaptation are knowledgeable about the PISA assessment framework	Translators or staff responsible for adaptation can reliably predict the difficulty of PISA test items

Justification: None of the project staff have any experience with the PISA framework.

108. Appropriateness of instrument translation and adaptation to local contexts

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: PISA Technical Standards: Standard 4.3, PISA Technical Standards: Standard 5.1

Latent	Emerging	Established	Advanced
	Translators have limited knowledge of common usage	Translators have academic (i.e., foreign) knowledge of language usage in local contexts	Translators or staff responsible for adaptation have functional knowledge of dialects or language in different contexts

Justification: All translators will have adequate knowledge of the common usage of the language of testing.

109. Fidelity of instrument translation and adaptation to local contexts

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: PISA Technical Standards: Standard 4.3, PISA Technical Standards: Standard 5.2

Latent	Emerging	Established	Advanced
No experience with research		Translators or staff responsible for instrument adaptation have experience with survey research or equivalent training in social/psychological measurement	Translators or staff responsible for instrument adaptation are knowledgeable about the constructs measured by PISA questionnaires (e.g., ISEI, ESCS school climate, engagement with learning, etc.)

Justification: None of the translators currently used by LSA projects has a research background. Additional translation review will be required from research experts within the National Centre to ensure that translated texts retain the original normative definitions for the purposes of research.

110. Availability of document formatting and print specifications

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: PISA Technical Standards: Standard 10.2, PISA Technical Standards: Standard 10.3, PISA Technical Standards: Standard 10.4, NPM Manual: NC responsibilities

Latent	Emerging	Established	Advanced
Authors choose formats for their own documents	Document and print specifications are not easily accessible	All document print and specifications are maintained on servers accessible to all NC staff	IT managers can assign read-only permissions to users for certain documents

Justification: There is no institutional manual of style. Each author is responsible for formatting new documents, although authors tend to include common branding elements (logos, borders) for formal documents.

Project Requirement 31. Planning of staffing and resources (technical and material) needed for coding of test booklets and contextual questionnaires and data management

111. Response coding expertise

Programme output: Enhanced cognitive assessments for below-baseline proficiency levels in PISA

References: PISA Technical Standards: Standard 11.1

Latent	Emerging	Established	Advanced
Response coders have experience manually scoring student work		Response coders have experience manually coding student responses in large-scale assessments	Response coders are recalibrated periodically based on results of reliability analysis (see Standard 11.3)

Justification: When data from open-ended test items are processed, the common practice at EQAD is to double-score a sample of student test booklets throughout the marking process to confirm that different markers will produce the same student test scores.

112. Fidelity of response coding

Programme output: Enhanced contextual questionnaires and data-collection instruments

References: PISA Technical Standards: Standard 11.3

Latent	Emerging	Established	Advanced
Coders and managers have not received or are not acquainted with operations manual from NPM	Coders and managers have access to manual		Manual is used directly in training for and management of coding activities

Justification: All coders and managers are given the project documentation as part of their training and initiation to the project. This practice is common across all activities at EQAD.

ANNEX B: TERMS OF REFERENCE

This annex includes the introduction and statement of work sections of the OECD Terms of Reference for the CNA and the CBP.

Introduction

OECD is seeking to enhance its Programme for International Student Assessment (PISA) to make it more relevant for developing countries. Through its PISA for development project, adapted survey instruments will be developed to allow developing countries to assess 15-year-olds' competencies in the key subjects of reading, mathematics and science, while at the same time providing the countries with an opportunity to build their capacity to manage student assessment and apply the result for system improvement.

Statement of Work

These terms of reference (ToR) cover the work to be carried out by three consultants (each hired with the same ToR) as part of the PISA for Development project. The purpose of the work is to ensure that for each of the 6 participating countries¹ the following deliverables are completed in a timely and accurate manner in order to support the effective implementing of the project:

- A. Capacity Needs Analysis (CNA) report for each participating country focusing on the institutional and the student assessment areas related to the implementation of the PISA for Development project.
- B. Capacity Building Plan (CBP) prepared for each of the participating countries that are fully costed and directly address the needs identified in the CNA for each country.

In order to produce these two deliverables the consultants will be required to complete the necessary tasks involved in co-ordination with the project team at the OECD and in-country with each of the participating countries. The tasks associated with each deliverable are described in the following three sub-sections.

Deliverable A: Capacity Needs Analysis reports

In the context of the project's objectives, the roles and responsibilities for National Centres (NC) and National Project Managers (NPM) and the capacity building priorities identified by the countries, the consultants will undertake a Capacity Needs Analysis (CNA) for each of the participating countries.

The benchmark for the CNA will be the necessary capacity required in the context of the PISA for Development project, which is defined as:

- The ability of the individuals and institutions responsible for the project in each country to perform the necessary functions (as set out in the roles and responsibilities for NC and NPM),

solve the likely problems that will arise during implementation and set and achieve project objectives in a sustainable manner.

Countries may desire future capacities for student assessment that go beyond this necessary ability and include competencies in, for example, item development, assessment methods and analysis of assessment data to support policy. In these cases the consultants will reflect the countries' desire in a broader statement of capacity than the one indicated above, but will ensure that these aspirations are rooted in a realistic appraisal of what is possible to achieve in a three year timeframe and given the capacity assets that countries are starting with.

The CNA for each country should be based on existing recent and relevant assessments of capacity for student assessment that may have been undertaken and a clear analysis of desired future capacities (as summarised above) against current capacities. The assessment should also be couched in the broader context of the participating countries' education sector policies, strategies and priorities generally and their strategies for strengthening student assessment in particular. The assessment should generate an understanding of capacity assets and needs, which in turn should lead to the formulation of a Capacity Building Plan (CBP, Deliverable B).

The CNA is integral to the project planning and programming process, as the understanding of capacity assets and needs will serve as key inputs into the formulation of the capacity building plan. The consultants will identify the indicators to be used to measure capacity assets that will serve as a foundation for the subsequent monitoring and evaluation of capacity development. The consultants will develop an overall capacity assessment framework to facilitate the task and this will be composed of three dimensions:

- the enabling environment, particularly the Ministry of Education and other users of the results of the PISA for development project;
- organisation, particularly the National Centre and any sub-national institutions that will be involved in the project; and
- individual, especially the staff of the National Centre and related organisations, in particular the National Project Manager and his/her team.

In undertaking this task the consultants should ensure that at the outset of the activity the capacity assessment objectives and expectations of the country are clarified in the context of the aims and objectives of the PISA for development project and the resources available and that the key stakeholders are identified and engaged throughout the process. In addition, the consultants should adapt the capacity assessment framework to local needs and priorities in each country, in particular the capacity asset indicators that are used. The assessment of existing capacity levels should be transparent and the summarising and interpretation of results should be clearly communicated to key stakeholders prior to the drafting of the capacity assessment report for each country.

In preparing the capacity assessment report for each country, it will be important for the consultants to include the process and methodology adopted, the stakeholders (internal/external) that were consulted, their perspectives and insights on the organisation housing the National Centre, a review and analysis of quantitative and qualitative information, and the resulting capacity development priority needs. The results should be reviewed, validated and enhanced through consultation meetings with the main stakeholders in each country and the OECD, prior to finalisation.

Deliverable B: Capacity Building Plans

On the basis of the CNA reports, the consultants should complete and agree with each partner country and OECD a CBP covering the three years of project implementation, taking care to ensure that training and capacity building opportunities are costed and scheduled in a timely and effective way. Specifically, the consultants are tasked to design a programme that will equip the National Centre, the National Project Manager and other related actors with the capacity they require to implement the PISA for Development project successfully and, in addition, respond to particular priorities for student assessment that the participating countries identify beyond those necessary for project implementation, such as assessment methods, item development, analysis and use of data to support policy development and student assessment for curriculum reform.

Technical capacity-building, institution building and knowledge-transfer opportunities have been clearly identified as part of the implementation of the project with each of the participating countries and development partners. These opportunities include, but are not restricted to, the following:

- procedures for and verification of translations and adaptations of assessment materials (different languages and/or different adaptations of same language versions)
- sample design and selection, including population coverage, exclusions and response rates
- field administration of the assessment and data collection
- quality assurance of the field administration and data collection
- marking and coding of open-ended and multiple-choice items (cognitive and questionnaire responses)
- data entry, cleaning and verification
- scaling of results using IRT models (cognitive and contextual)
- calculation of specific indices (e.g. ESCS gradients)
- calculation, analysis and calibration of item parameters (item difficulty, point-bi-serial indices and other psychometric coefficients for possible data entry errors, translation or other problems)
- compilation of data sets for analysis (student responses and scaled scores)
- exploitation of PISA data sets for analysis (country-specific and international data sets)
- PISA Assessment Frameworks in Mathematics, Reading and Science (basis of the content, competencies and skills assessment)
- item development process (based on PISA frameworks)
- design and drafting of analytical report following PISA country report models
- specific technical topics: plausible variables, IRT models, conditioning, scaling, DIF (Xgender, Xcountry and Xlanguage), student and school weights

In some cases, development partners may establish extended engagement with participating countries for technical assistance to support institutional capacity building and implementation that supports the PISA participation process and the consultants will need to take account of these contributions in the CBP.

The CBP for each country should respond to the needs identified and consist of initiatives and activities that build the foundation for capacity development as well as build momentum for the implementation of the project, the use of the results of student assessment and the achievement of the desired future capacities in a timely fashion. The CBP should also complement and, where possible, be integrated with the participating countries' broader strategies for student assessment at all levels of their education systems.

The CBP should include indicators to measure progress in the implementation of capacity development over the three years of the project. The programme should have a clear baseline and targets for each year of implementation should be established for each indicator. The process of monitoring progress should also allow the refinement of capacity development response strategies and potentially the design of new initiatives to address evolving needs. The CBP should be accurately costed in the context of the PISA for development international costs budget, the in-country project costs budget of each country and the additional development partner support that may be available in each country, beyond the project funding.

NOTE

¹ Participating countries as of March 2015 include: Ecuador, Guatemala, Senegal and Zambia. Cambodia and Paraguay are in the process of finalising participation agreements with the OECD.

PISA FOR DEVELOPMENT

Capacity Needs Analysis: Cambodia

PISA for Development is an initiative of the OECD and development partners that aims to identify how its Programme for International Student Assessment (PISA) can best support evidence-based policy making in emerging and developing economies – and contribute to the UN-led definition of global learning goals for the post-2015 agenda. In addition the project will help to build country capacity in assessment, analysis and use of results for monitoring and improvement among participating countries. Cambodia is one of six countries participating in the project, and the Ministry of Education, Youth and Sport of Cambodia is responsible for the project in the country. This report presents the results of an analysis of Cambodia in respect of its capacity for managing large scale student assessments, such as PISA.

The results of this report are being used to design a capacity building plan for Cambodia that will be implemented by the OECD, its contractors, and the Ministry of Education, Youth and Sport of Cambodia, through the PISA for Development project.