

PISA Capacity Needs Assessment Armenia

Programme for International Student Assessment



PISA CAPACITY NEEDS ASSESSMENT: ARMENIA

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Table of contents

Acknowledgements	3
List of acronyms	5
Executive summary	6
1. Introduction and background	9
1.1. PISA 2025 Capacity Building and Implementation Support	9
2. Framework	11
2.1. Dimensions.....	11
2.2. Indicators	11
2.3. Rating criteria	12
3. Methods	13
4. Capacity Needs Assessment for Armenia	14
4.1. CNA activities for Armenia.....	14
4.2. Summary of key findings	14
5. Conclusions	20
Annex A. Detailed findings of the CNA	21
Annex B. Stakeholder and document mapping	32
Annex C. Capacity Needs Assessment consultations	35
Annex D. CNA questionnaires	36
Questionnaire for officials.....	36
Questionnaire for individuals	49

FIGURES

Figure 1. CBIS Planning and Preparation Support for participants starting in 2022	10
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TABLES

Table 1. Rating of the Capacity Needs Assessment for Armenia	7
Table A A.1. Enabling environment	22
Table A A.2. Organisational level	25
Table A A.3. Individual level	29
Table A B.1. Stakeholder mapping table	32
Table A B.2. Document mapping table	34
Table A C.1. List of participants in the Capacity Needs Assessment consultations	35

List of acronyms

ACER	Australian Council for Educational Research
ANLAS	Analysis of National Learning Assessment System
ATC	Assessment and Testing Centre
CBA	Computer-based assessment
CBIS	Capacity Building and Implementation Support
CBP	Capacity Building Plan
CNA	Capacity Needs Assessment
EMIS	Education Management and Information System
NC	National Centre
NPM	National Project Manager
OECD	Organisation for Economic Co-operation and Development
PBA	Paper-based assessment
PIP	Project Implementation Plan
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PISA-D	PISA for Development
SABER	Systems Approach for Better Education Results
TIMSS	Trends in International Mathematics and Science Study

Executive summary

The Organisation for Economic Co-operation and Development (OECD)'s Programme for International Student Assessment (PISA) measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges.

Based on the experiences of the support programs provided in PISA for Development (PISA-D) and in PISA 2022 through the Country Preparation and Implementation Support partnership option, PISA 2025 offers new participants the Capacity Building and Implementation Support (CBIS) option. CBIS aims at providing new participants with specific and targeted support for their successful implementation of PISA 2025. The CBIS option is implemented by ACER.

At the outset of CBIS, a Capacity Needs Assessment (CNA) is carried out to assess CBIS participants' capacity to implement PISA. The assessment focuses on the officials of the Ministry of Education, CBIS National Project Managers (NPM) and key National Centre (NC) roles, to gain information about their capacity assets and needs in relation to what is required to implement PISA successfully.

The capacity assets and needs to successfully implement PISA 2025 are structured into three dimensions:

1. The enabling environment
2. The organisation level
3. The individual level.

For each dimension, a number of capacity indicators are defined and rated according to the extent of capacity assets and needs a participant has. The ratings are as follows:

- Latent: There is little or no capacity [in this indicator area] -- significant capacity building required.
- Emerging: There is some capacity [in this indicator area] -- capacity building required.
- Established: There is sufficient capacity [in this indicator area] -- capacity building optional.

This report presents detailed findings of the CNA for Armenia. In summary, the CNA ratings for Armenia are presented in Table 1.

Table 1. Rating of the Capacity Needs Assessment for Armenia

Indicator area	Rating		
	Established	Emerging	Latent
Enabling Environment dimension			
E1 Assessment system structure	✓		
E2 Legislation or policy	✓		
E3 Leadership	✓		
E4 Institutional arrangements	✓		
E5a Funding	✓		
E5b Funding from donors		✓	
E6 Use of assessment data	✓		
E7 Educational Management Information System	✓		
Organisational Level dimension			
O1 Assessment team		✓	
O2 Mobilisation of funding	✓		
O3 Temporary staff	✓		
O4 Physical infrastructure	✓		
O5 IT infrastructure and support	✓ (For PBA)	✓ (For CBA)	
O6 Security policies and procedures	✓		
O7 Instrument development	✓		
O8 Translation and linguistic quality control		✓	
O9 Target population and sampling		✓	
O10 Survey operations and logistics	✓ (For PBA)	✓ (For CBA)	
O11 Data management	✓		
O12 Data analysis and reporting		✓	
O13 Dissemination and communication		✓	
Individual Level dimension			
I1 National Project Manager	✓		
I2 Assessment instruments co-ordinator		✓	
I3 Sampling manager		✓	
I4 Survey operations and logistics manager	✓ (For PBA)	✓ (For CBA)	
I5 Data manager	✓		
I6 Data analyst		✓	
I7 Information technology co-ordinator	✓ (For PBA)	✓ (For CBA)	
I8 Communication in English	✓		

Note: PBA = Paper-based assessment; CBA = Computer-based assessment.

In conclusion, the CNA for Armenia indicates that capacity to implement PISA 2025 has been largely established in the enabling environment, except for funding from donors which is emerging, indicating further opportunities for funding if needs are identified.

While Armenia has long-term experience in implementing international and national large-scale assessments, PISA's methods and procedures are different and more complex compared with Armenia's prior experience. Some areas at the organisational and individual levels may therefore present challenges. Armenia's intention to participate in the computer-based assessment (CBA) in PISA 2025 will add further challenges. As the capacity required to implement CBA is significantly different from the capacity required to implement the paper-based assessment (PBA), separate ratings were given for CBA and PBA for indicators related to IT, and survey operations and logistics, at the organisational and individual levels.

At the individual level, three of the key NC roles (sampling manager, survey operation and logistics manager, and information technology co-ordinator) were either yet to be filled or

information about the appointed person was not available at the time of undertaking the CNA. Therefore, the ratings for these roles were assumed based on the experience at the organisational level.

Overall, it is strongly recommended that the PISA NC in Armenia makes the best use of the relevant capacity-building opportunities that will be offered during the course of PISA 2025. These opportunities will be described in the Capacity Building Plan for Armenia as a next step.

1. Introduction and background

The Organisation for Economic Co-operation and Development (OECD)'s Programme of International Student Assessment (PISA) is the world's largest international learning assessment. PISA measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges. PISA provides an international benchmark of learning outcomes that inform evidence-based decision-making in education policy over time.

PISA 2025 is the 9th cycle of PISA, which has been conducted every three years since 2000.¹ The focus of PISA 2025 is science, and the assessment also includes the innovative domain of Learning in the Digital World. The innovative domain aims to measure students' ability to engage in self-regulated learning while using digital tools.² The overall management of contractors, the implementation of PISA 2025, as well as the instrument development for the innovative domain, is carried out by the Australian Council for Educational Research (ACER). Other contractors include Oxford University Press for the science framework development and Westat for sampling.

1.1. PISA 2025 Capacity Building and Implementation Support

Implementing a large-scale assessment that delivers high-quality data and then using the data for evidence-based decision making are demanding tasks for any education system. While PISA offers a range of capacity-building opportunities to participants, it can be particularly challenging for new participants. Therefore, capacity development is an integral part of any PISA cycle.

Based on the experiences of the support programmes provided in PISA for Development (PISA-D)³ and PISA 2022 Core E, PISA 2025 offers new participants the Capacity Building and Implementation Support (CBIS) option. CBIS aims to provide new participants with specific and targeted support for their successful implementation of PISA 2025. The CBIS option is implemented by ACER.

CBIS consists of the following five components:

- Planning and preparation support
- Support through a CBIS Liaison Officer
- In-country visit
- Peer learning
- Implementation support.

The planning and preparation support includes resources, tools and activities that are designed to assist participants with their planning and preparation for PISA 2025. The main features of the component are a Capacity Needs Assessment, Capacity Building Plan and Project Implementation Plan (see Figure 1).

¹ With the exception of PISA 2022, which was implemented four years after PISA 2018 due to the COVID-19 pandemic.

² www.oecd.org/pisa/innovation/learning-digital-world/

³ www.oecd.org/pisa/pisa-for-development/

Figure 1. CBIS Planning and Preparation Support for participants starting in 2022



1.1.1. Capacity Needs Assessment (CNA)

At the outset of CBIS, a CNA is carried out to assess CBIS participants' capacity to implement PISA. The assessment focuses on the CBIS National Project Managers (NPMs) and key National Centre (NC) roles to gain information about their capacity assets and needs in relation to what is required to implement PISA successfully. Findings from the CNA are summarised in a brief report to highlight areas for capacity strengthening, which in turn will help the NC to allocate resources appropriately and focus on building capacity where needed.

1.1.2. Capacity Building Plan (CBP)

A CBP is prepared for CBIS participants to assist with planning for strengthening their capacity to implement PISA. The CBP lists all the capacity building opportunities that will be offered to PISA participants throughout the PISA 2025 project as well as those catered specifically for CBIS participants according to the needs identified in the CNA. The CBP includes details of the PISA meetings and trainings, and CBIS-specific activities.

1.1.3. Project Implementation Plan (PIP)

The PIP is a set of resources and tools that are designed to assist CBIS participants with the preparation for and implementation of PISA 2025. The PIP Schedule – the main feature of the PIP – is a tool that lists all the PISA tasks that PISA NCs are required to complete according to agreed timeline. CBIS participants are supported to adapt the PIP Schedule to suit their national requirements and context. The adapted PIP Schedule is updated continuously throughout the PISA 2025 implementation period and used as a comprehensive planning and monitoring tool.

This report presents the CNA for Armenia. The report describes the framework, methodology and findings of the CNA.

2. Framework

The PISA 2025 CNA aims to identify capacity assets and needs of CBIS participants to implement PISA 2025 successfully. The framework for the PISA 2025 CBIS CNA was developed based on the PISA-D Capacity Needs Analysis⁴ and the PISA 2022 Core E Capacity Needs Analysis Framework (unpublished). In addition, specific PISA materials were consulted to identify capacity required for the successful implementation of PISA 2025. These include drafts of the PISA 2025 Technical Standards, PISA 2025 NPM manual, and the PISA 2025 NPM and NC Roles and Responsibilities document⁵.

Focusing on the preparation and implementation of PISA 2025, capacity is defined as:

the ability of the individuals and institutions responsible for the project in each country to carry out the different tasks associated with the multiple steps of the PISA implementation and the options selected by the country (e.g., computer-based or paper-based assessment), to solve problems that may arise during implementation, adhere to project timelines, set and achieve project objectives in a sustainable manner and conduct national analysis and reporting.

This definition is operationalised in the three framework dimensions and their capacity indicators.

2.1. Dimensions

The capacity assets and needs to successfully implement PISA 2025 are structured into three dimensions:

1. The enabling environment: Focuses on the context of large-scale assessments in the country at the system level. This dimension addresses more general aspects of the assessment system, such as policies and regulations, institutional arrangements, and funding.
2. The organisational level: Focuses on capacity assets and needs to implement large-scale assessments at the national level. Organisational aspects of managing, designing, implementing and analysing data from large-scale assessments are covered, with a focus on the implementation of PISA.
3. The individual level: Focuses on the key roles and responsibilities and the knowledge, skills and experience required to successfully complete the diverse PISA tasks. Through these three dimensions, the CNA covers capacity assets and needs that are required to successfully implement PISA within the broader context of current and desired future capacities of a sustained assessment system.

2.2. Indicators

For each dimension, several capacity indicators are defined. The following areas are covered:

- **Enabling environment:** E1 Assessment system structure, E2 Legislation or policy, E3 Leadership, E4 Institutional arrangements, E5a Funding, E5b Funding from

⁴ PISA-D Capacity Needs Analysis reports were produced for the eight participating countries. For more information see: www.oecd.org/pisa/pisa-for-development/pisa-for-development-documentation.htm

⁵ All documents are forthcoming.

donors, E6 Use of assessment data, E7 Educational Management Information System.

- **Organisational level:** O1 Assessment team, O2 Mobilisation of funding, O3 Temporary staff, O4 Physical infrastructure, O5 IT infrastructure and support, O6 Security policies and procedures, O7 Instrument development, O8 Translation and linguistic quality control, O9 Target population and sampling, O10 Survey operations and logistics, O11 Data management, O12 Data analysis and reporting, O13 Dissemination and communication.
- **Individual level:** I1 National Project Manager, I2 Assessment instruments co-ordinator, I3 Sampling manager, I4 Survey operations and logistics manager, I5 Data manager, I6 Data analyst, I7 Information Technology co-ordinator, I8 Communication in English.

A complete description of capacity indicators is included in Annex A.

2.3. Rating criteria

Rating criteria were defined for each indicator area to support the assessment and to identify capacity assets and needs. Three criteria were differentiated:

- **Latent:** There is little or no capacity [in this indicator area] -- significant capacity building required.
- **Emerging:** There is some capacity [in this indicator area] -- capacity building required.
- **Established:** There is sufficient capacity [in this indicator area] -- capacity building optional.

3. Methods

The CNA for CBIS participants is essentially qualitative in nature. Three major data collection methods are used to gain information on the capacity assets and needs:

- **Online questionnaires:** The capacity indicators for each dimension are operationalised into the CBIS CNA questionnaires, which include a questionnaire for officials and a questionnaire for individuals (Annex D). The former is designed to identify capacity assets and needs at the system and organisational levels while the latter does so at the individual level. Participants in the questionnaires are identified by the NPM, which, for Armenia, included senior government officials from relevant divisions of the Ministry of Education, senior representatives in education or assessment institutions, organisations, agencies, development partners and donors, the PISA National Centre head, the PISA NPM, and key National Centre staff. To assist with the identification of key stakeholders, a stakeholder mapping exercise is carried out.
- **Stakeholder consultations:** Stakeholder consultations are undertaken by a CBIS Liaison Officer during a one-week in-country visit to collect further information that could not be obtained through the online questionnaires. The NPM assists the consultations by co-ordinating and scheduling the consultations.
- **Document analysis:** Relevant documents that indicate capabilities in large-scale assessments are also analysed (e.g. policy documents, strategy documents). The NPM is asked to identify and source relevant documents that were available in English, or translate relevant documents to English, based on a document mapping exercise.

To analyse capacity assets and needs in the CBIS participant, the data obtained from the CBIS CNA Questionnaires, stakeholder consultations and documents are consolidated and assessed as they relate to each dimension and capacity indicator. Each capacity indicator is then given:

- A rating using the defined rating criteria
- A justification for the rating
- A description of the identified capacity assets and needs.

This report was prepared to present the findings of the assessment for each CBIS participant. To ensure accuracy and completeness of the findings presented, and to gain broad stakeholder agreement and engagement, the CBIS participants were encouraged to invite key stakeholders to review the report.

4. Capacity Needs Assessment for Armenia

This chapter presents the CNA activities for Armenia, a summary of key findings and conclusions.

4.1. CNA activities for Armenia

The CNA stakeholder and document mapping tables were prepared in consultation with the representatives from the Ministry of Education, Science, Culture and Sport of the Republic of Armenia (hereafter referred to as the Ministry of Education) and the Assessment and Testing Centre (ATC) over four online meetings in June and July 2022. The ATC is an implementing agency of examinations and large-scale assessments in Armenia. The mapping exercise assisted in the subsequent CNA activities. The stakeholder and document mapping tables are presented in Annex B.

The CBIS CNA Questionnaires were then administered to the key stakeholders that were nominated by the representatives from the Ministry of Education and the ATC. Valid responses were received from six respondents for the questionnaire for officials, and from 22 respondents for the questionnaire for individuals over the period of approximately three weeks in July 2022.

Stakeholder consultations were carried out during the in-country visit undertaken by Andrew Mannion from ACER, between 11 and 15 July 2022 to obtain further information that was unable to collect through the CBIS CNA questionnaires. The consultations took place in Yerevan, the capital city of Armenia, with senior officials of Ministry of Education and representatives of educational institutions, including the ATC. Consultations were also carried out with representatives from key development partners. Annex C shows a complete list of participants in the stakeholder consultations.

All the information collected through the above activities were collated and analysed along with the relevant documents obtained through the document mapping exercise.

4.2. Summary of key findings

For each indicator area, a rating is provided together with a brief rationale and identified capacity needs. The details of the assessment are provided in Annex A.

4.2.1. *Enabling environment*

Assessment system structure (E1) – Established

The National Studies (a national large-scale assessment programme) and the Trends in International Mathematics and Science Study (TIMSS, an international large-scale assessment programme) form part of the assessment system in Armenia to provide performance data in the domains of Armenian history and literature, science, mathematics and foreign language at Grade 4 (the last year of primary general education) and Grade 8 (the second last year of the first stage of secondary education). The large-scale assessment programmes also provide relevant contextual data.

Legislation or policy (E2) – Established

The Law of the Republic of Armenia on “Approving the Education Development State Programme of the Republic of Armenia 2011-2015” dated 23 June 2011 stipulates Armenia's participation in international large-scale assessment programmes, specifically in

TIMSS, PIRLS and PISA. Since then, a new strategic policy document has been developed. The Government of the Republic of Armenia approved the draft of the law on “Education Development State Programme till 2030” (hereafter referred to as the Programme) dated 28 June 2022. Subsequently, the National Assembly approved it during the first reading on 4 October 2022. Subsequently, the National Assembly approved it on 16 November 2022.

Leadership (E3) – Established

The Ministry of Education and the ATC promote the implementation of national and international large-scale assessments. This is demonstrated through articles on each institutions’ website, newspapers, meetings, seminars, trainings and videos on TV. Armenia’s participation in international large-scale assessments is widely discussed and co-ordinated within the Ministry of Education, which indicates strong leadership in support of large-scale assessment. In addition, regular attendance of representatives from both the Ministry of Education and the ATC at the PISA CBIS online meetings indicate senior leadership’s support of PISA implementation in Armenia.

Institutional arrangements (E4) – Established

The ATC is widely recognised in Armenia as the leading authority in student assessment. Its responsibilities include not only international large-scale assessments, but also national large-scale assessments and examinations. The ATC is accountable to the Minister of Education.

Funding (E5a) – Established

Armenia has been participating in TIMSS regularly (2003, 2007, 2011, 2015, 2019, and will participate in 2023) and has secured funding for their participation in PISA 2025. Also, the Ministry of Education has been implementing annually the National Studies since 2010. These indicate the government's provision of stable funding for international and national large-scale assessments.

Funding from donors (E5b) – Emerging

Armenia’s large-scale assessment programmes are currently funded by the government while some capacity building activities related to large-scale assessment receive external funding. Other than the support for capacity building activities, no particular needs for funding from donors seem to have been identified. However, the Ministry of Education’s ongoing effort to engage development partners may present future opportunities to tap into funding from donors to support large-scale assessments if further needs are identified.

Use of assessment data (E6) – Established

Data collected through the CNA indicate that data from large-scale assessments has been used for evidence-based education policy and planning in Armenia, including:

- Education sector planning
- Monitoring and evaluation
- Resourcing/funding allocation
- Curriculum development
- School development

- School education workforce development (e.g. qualification and professional development of teacher trainers, teachers, school principals)
- Professional development for teachers

Educational Management Information System (E7) – Established

The Education Management Information System (EMIS) in Armenia is managed by the National Centre for Educational Technologies (NCET). A visit to the NCET during the PISA CBIS in-country visit showed that Armenia had developed a comprehensive system for the collection, integration, processing, maintenance and use of data and information related to school, teachers and students.

4.2.2. Organisational level

Assessment team (O1) – Emerging

Although the establishment of PISA National Centre was underway at the time of undertaking the CNA, organisational capacity to form a dedicated and skilled assessment team already exists within the ATC. The Deputy Director of the ATC, with experience of implementing multiple TIMSS cycles, has been appointed PISA NPM. The ATC has used TIMSS experience to develop and implement national large-scale assessments each year since 2010 – including management, instrument development, test design, survey operations, data management and analysis, and reporting and dissemination. While the ATC has these valuable experiences, some areas – such as sampling, linguistic quality control, analysis and reporting – might present challenges as some of PISA’s methods and procedures are different and more complex when compared to other international large-scale assessments. Also, the participation in the CBA for the first time will add some challenges.

Mobilisation of funding (O2) – Established

The ATC’s regular implementation of TIMSS and the National Studies indicate that the ATC is able to mobilise the allocated funds to complete the diverse tasks associated with large-scale assessments.

Temporary staff (O3) – Established

The ATC budgets for, and recruits, temporary staff – including subject matter experts, test developers and translation specialists – as needed for assessment activities. Temporary staff are employed under standard government contracts. Procedures for recruiting temporary staff are well-established and have been used over a number of years.

Physical infrastructure (O4) – Established

The PISA NC will be located within the ATC. The ATC has sufficient physical infrastructure for implementing large-scale assessments, including workstations for staff, meeting rooms, secure office space and secure facilities for data processing, coding operations and storage of assessment material.

IT infrastructure and support (O5) – Established for PBA; Emerging for CBA

The ATC is well equipped with necessary IT infrastructure to complete national large-scale assessments as PBA. The ATC has IT support staff, secure workstations and other necessary infrastructure. However, improved IT capacity for the ATC staff will be needed

when Armenia implements CBA for the first time in PISA 2025. While the ATC has experience in CBA on a small scale when conducting the field trial for TIMSS 2023, implementing a CBA in a full scale will be a new experience. Such capacity may include assistance with specific software, student delivery, coding system, and assessment team support in all IT-related aspects.

Security policies and procedures (O6) – Established

Security policies and procedures have been established at the ATC to ensure assessment material and data is kept secure and confidential. All the ATC staff sign confidentiality agreements and are fully aware of and understand the need to keep assessment material and data secure. For PISA implementation, the capacity to develop security policy and protocols in accordance with PISA technical standards will be needed.

Instrument development (O7) – Established

The ATC has significant experience in the development of test instruments, including for national assessments, graduation exams and university entrance exams. A team of specialist test developers for secondary school subjects is supplemented by outside specialists for the university entrance examinations.

Translation and linguistic quality control (O8) – Emerging

For PISA in Armenia, cognitive items and contextual questionnaires will be adapted from the English source version and translated into Armenian and possibly other languages. The languages to which the assessment materials need to be adapted and translated, will be discussed and determined during the PISA field trial preparation phase, following the PISA translation and adaptation guidelines. While the ATC has a well-developed process of instrument development and quality assurance for translations of English items into Armenian, some of the PISA translation and adaptation processes will be new to the ATC. A capacity building opportunity in the area of translation and linguistic quality control will be beneficial to the PISA NC in Armenia.

Target population and sampling (O9) – Emerging

The ATC has a department specialised in sampling, experience in undertaking sample-based national large-scale assessments, and access to the well-established EMIS. However, PISA's target population is age-based while the ATC's experience in large-scale assessments is mostly with grade-based target population. In addition, PISA requires exclusions to be clearly defined and documented while no students are currently excluded from the national large-scale assessments. Knowledge may be required of the ATC staff to create a sample frame that provides complete coverage of the age-based target population with exclusions at the school and student levels, being clearly defined and documented.

Survey operations and logistics (O10) – Established for PBA; Emerging for CBA

Drawing upon the experience of implementing multiple cycles of TIMSS, the ATC is very well-placed to implement the PISA survey operations for the PBA. However, considering that Armenia intends to participate in CBA delivery, it will entail more complex survey operations and logistics. Capacity will be needed for planning quality assurance mechanisms to ensure survey operations for CBA are standardised, monitored and documented.

Data management (O11) – Established

The ATC has experience in data management for the annual national large-scale assessments, the university entrance examinations, the final school examinations and TIMSS.

Data analysis and reporting (O12) – Emerging

The ATC has three or four data analysis specialists, including experienced psychometricians. Current data analysis includes data analysis and reporting of the results of university entrance exams and national assessments. However, Armenia did not prepare national reports of TIMSS results after 2011 due to limited funding. Therefore, producing a national report based on PISA international analytical results will be a new experience for the ATC. Capacity will be needed to analyse and interpret PISA data and to use the findings from PISA results and their policy implications in the national context.

Dissemination and communication (O13) – Emerging

Results from international large-scale assessments are widely disseminated through the media. These results are also distributed and discussed at the ATC's annual conference, which provides a forum for a variety of stakeholders in education. However, the results are limited to those at the international level as national reports of TIMSS results have not been prepared after 2011. Also, tailoring of assessment results to different stakeholders was not reported. Capacity needs were identified to tailor products and approaches to reporting and dissemination to different stakeholder groups.

*4.2.3. Individual level**National Project Manager (I1) – Established*

The Deputy Director of the ATC has been appointed to the role of PISA NPM. He has decision-making authority within the organisation to lead the PISA assessment team and to oversee all PISA activities. He has experience of leading a national assessment team for multiple cycles of TIMSS in Armenia. He can communicate effectively, orally and in writing, in English. He will be available to work on PISA 2025 in a full-time capacity for the duration of PISA 2025 and will be available to attend the NPM meetings and international training as required.

Assessment instruments co-ordinator (I2) – Emerging

The NPM is likely to fill the role for PISA as he did so for a similar role when implementing TIMSS. While his experience with TIMSS is highly valued, there are some translation and adaptation procedures of assessment materials which he is not familiar with. One of them is that PISA requires a process of double independent translation followed by reconciliation to merge the two separate translations. Building capacity to organise translation, adaptation and verification in accordance with the PISA technical standards may be highly beneficial for this role.

Sampling manager (I3) – Emerging

The ATC appointed an appropriate specialist for this role. As information about the sampling manager was not available at the time of conducting the CNA, capacity of this indicator area was rated based on the experience at the organisational level. See “Justification” and “Identified capacity needs” for O9 Target population and sampling.

Survey operations and logistics manager (I4) (to be appointed) – Established for PBA; Emerging for CBA

This role is yet to be filled. There is a department within the ATC that is specialised in assessment logistics, and a staff member from the department is likely to be appointed for this role. Capacity of this indicator area was rated based on the experience at the organisational level. See “Justification” and “Identified capacity needs” for O10 Survey operations and logistics.

Data manager (I5) – Established

A staff member from the ATC is likely to be appointed to the role of data manager. He is Head of the Department of Informatics and Analytical Works. He has been working at the ATC since 2005 and has been Head of the aforementioned department since 2019. He has been the Data Manager for TIMSS in Armenia with experience in a range of data management tasks typically required in large-scale assessment programmes. He will be available to attend the NPM meetings and international trainings as required.

Data analyst (I6) – Emerging

The ATC appointed an appropriate specialist for this role. He has experience in a range of data analysis tasks. However, PISA will be the first international large-scale assessment programme under which national-level analyses and report writing will be undertaken not by the international contractors but by PISA NC. Therefore, opportunities to build the capacity to analyse and interpret PISA data and to use the PISA data in the national context will be highly beneficial.

Information Technology co-ordinator (I7) - Established for PBA; Emerging for CBA

The ATC appointed an appropriate specialist for this role. As information about the Information Technology co-ordinator was not available at the time of conducting the CNA, this indicator area was rated based on the experience at the organisational level. See “Justification” and “Identified capacity needs” for O5 IT infrastructure and support.

Communication in English (I8) – Established

Most of the key staff members of the ATC are generally fluent in English.

5. Conclusions

The CNA for Armenia indicates that capacity to implement PISA 2025 has been largely established in the enabling environment, except for funding from donors which is emerging, indicating further opportunities for funding if needs are identified.

While Armenia has long-term experience in implementing international and national large-scale assessments, some areas at the organisational and individual levels may present challenges as PISA's methods and procedures are different and more complex compared with Armenia's prior experience. These areas include the assessment team, IT infrastructure and support, translation and linguistic quality control, target population and sampling, survey operations and logistics, data analysis and reporting, and dissemination and communication. Also, Armenia's participation for the first time in a CBA with PISA 2025 will add further challenges. As the capacity required to implement CBA is significantly different from the capacity required to implement PBA, separate ratings were given for CBA and PBA for indicators related to IT, and survey operations and logistics, at the organisational and individual levels.

At the individual level, three of the key NC roles (sampling manager, survey operation and logistics manager, and information technology co-ordinator) were either yet to be filled or information about the appointed person was not available at the time of undertaking the CNA. Therefore, the ratings for these roles were assumed based on the experience at the organisational level.

Overall, it is strongly recommended that the PISA NC in Armenia makes the best use of the capacity building opportunities in the potentially challenging areas that will be offered during the course of PISA 2025. These opportunities will be described in the CBP for Armenia as a next step.

Annex A. Detailed findings of the CNA

Annex A presents the detailed findings of the CNA for Armenia for each dimension:

- Table A A.1 Enabling environment
- Table A A.2 Organisational level
- Table A A.3 Individual level

For each capacity indicator a rating is provided and the justification with a description of the capacity assets and needs. The identified capacity needs are stated in the last column.

Table A A.1. Enabling environment

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
E1 Assessment system structure	Large-scale assessment programmes form part of the assessment system to provide performance data in key learning domains and relevant context data at key stages of primary and secondary school education at relevant levels of the education system.	Established	Armenia has been implementing the National Studies (a sampled-based annual national large-scale assessment programme) since 2010 and TIMSS (a sampled-based 4-year cycle international large-scale assessment programme) since 2003. These large-scale assessment programmes form part of the assessment system in Armenia to provide performance data in the learning domains of Armenian history and literature, science, mathematics and foreign language. They target students at Grade 4 (the last year of primary general education) and Grade 8 (the second last year of the first stage of secondary education). The large-scale assessment programmes also provide relevant contextual data.	
E2 Legislation or policy	The large-scale assessment programmes that form part of the assessment system are guided by legislation or policy.	Established	The Law of the Republic of Armenia on “Approving the Education Development State Programme of the Republic of Armenia 2011-2015” dated 23 June 2011 stipulates Armenia’s participation in international large-scale assessment programmes, specifically in TIMSS, PIRLS and PISA. Since then, a new strategic policy document has been developed. The Government of the Republic of Armenia approved the draft of the law on “Education Development State Programme till 2030” (hereafter referred to as the Programme) dated 28 June 2022. Subsequently, the National Assembly approved it on 16 November 2022. Besides, among the expected outcomes of the Programme, an indicator of improvement in the results of international assessments, such as PISA, is included, which also shows the importance of such assessments for Armenia.	
E3 Leadership	The government demonstrates senior leadership and political will in support of large-scale assessments. A strategy is in place to promote participation, effective implementation and dissemination of results amongst all relevant national stakeholders.	Established	The Ministry of Education and the ATC promote the implementation of national and international large-scale assessments. This is demonstrated through articles on each institutions’ website, newspapers, meetings, seminars, trainings and videos on TV. Armenia’s participation in international large-scale assessments is well discussed and co-ordinated within the Ministry of Education, which indicates strong leadership in support of large-scale assessment. In particular, the Ministry of Education organised a PISA launch event on 12 July 2022 during the one-week in-country visit by a CBIS Liaison Officer ⁶ and the Deputy Ministry of Education addressed the importance of participating in PISA in Armenia, which was featured in an article disseminated through the Ministry’s website. In addition, regular attendance of representatives from both the Ministry of Education and the ATC at the PISA CBIS online meetings indicate senior leadership’s support of the PISA implementation in Armenia.	

⁶ The in-country visit was part of the support activities provided through CBIS

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
E4 Institutional arrangements	The government has well-established institutional arrangements for large-scale assessments with clear accountability mechanisms.	Established	<p>The ATC is widely recognised in Armenia as an authority in student assessment. The ATC is an autonomous unit which currently operates under the Ministry of Education. Previously it operated under the Government/ Prime Minister's office. The ATC's responsibilities include:</p> <ul style="list-style-type: none"> • School graduation examinations at Grade 12 • Final examinations in Grades 4 and 9 • University entrance examinations • External assessments in sampled schools twice yearly to monitor student progress and assist teachers in preparing classroom assessments using various testing methods • National surveys • International surveys, including TIMSS and PISA <p>The ATC is accountable to the Minister of Education. The ATC is managed by the founder (Republic of Armenia) in the form of the Government of the Republic of Armenia, its authorised state body in the form of the Ministry of Education, and the executive body in the form of the ATC director. The director submits the draft of the organisation's annual budget to the Ministry of Education, as well as quarterly, annual and other reports required by the Law on "State Non-Profit Organisations".</p>	
E5a Funding	The government provides sufficient and stable funding for large-scale assessments.	Established	Armenia has been participating in TIMSS regularly (2003, 2007, 2011, 2015, 2019, 2023) and has secured funding for their participation in PISA 2025. Also, the Ministry of Education has been implementing annually the National Studies since 2010. These indicate the government's provision of stable funding for international and national large-scale assessments.	
E5b Funding from donors	The government receives funding from donors for large-scale assessments.	Emerging	<p>The implementation of large-scale assessment programmes in Armenia is currently funded by the government while some capacity building activities related to large-scale assessment receive external funding. For example, Armenia's participation in the Planning and Preparation Support component of CBIS⁷ has been funded externally. Another example is that the Global Partnership for Education has been providing the Ministry of Education with funding for undertaking the Analysis of National Learning Assessment System (ANLAS) in collaboration with UNICEF. ANLAS is a capacity building exercise to analyse the national learning assessment system.</p> <p>Other than the above examples, no other particular needs for funding from donors seem to have been identified to support large-scale assessments in Armenia. However, the Ministry of Education's ongoing effort</p>	Capacity to explore funding opportunities from donors for large-scale assessments if further needs are identified.

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
E6 Use of assessment data	Government and key stakeholders have capacity to use data from large-scale assessments for evidence-based education policy and planning.	Established	<p>Responses to the CNA questionnaires and a TIMSS document on education in Armenia, indicate that data from national and international assessments has been used for evidence-based education policy and planning in Armenia, including:</p> <ul style="list-style-type: none"> • Education sector planning • Monitoring and evaluation • Resourcing/funding allocation • Curriculum development • School development • School education workforce development (e.g., qualification and professional development of teacher trainers, teachers, school principals) • Professional development for teachers 	
E7 Educational Management Information System	The government has developed a system for the collection, integration, processing, maintenance and use of data and information related to school, teachers and students.	Established	<p>EMIS in Armenia is managed by the NCET. A visit to the NCET during the PISA CBIS in-country visit showed that Armenia had developed a comprehensive system for the collection, integration, processing, maintenance and use of data and information related to school, teachers and students.</p> <ul style="list-style-type: none"> • The EMIS is a management information system that links to all Armenian state schools and all Armenian non-state schools. • The NCET collects data electronically from each school, in real time, or close to it. The data includes student attendance, results from all assessments in all subjects, day-to-day homework information, and detailed individual information about each student. • The data is collected and managed centrally at the NCET and is available (with security constraints) to schools and parents to view. • The data is collected from kindergartens, schools, colleges and universities • The website is well-established. When accessing the site, viewers can drill down to specific students, groups of students, classes, schools, regions, and so on, to view and compare results and other relevant data. • The NCET also uses the site to deliver certification for students (currently at years 9 and 12) in an online only form. 	

Table A A.2. Organisational level

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
O1 Assessment team	There is a dedicated and skilled assessment team to complete the diverse tasks associated with large-scale assessments, including management, instrument development, translation and linguistic quality control, test design, sampling, survey operations and logistics, data management, data analysis, reporting and dissemination. Capacity-building is provided for assessment centre staff.	Emerging	<p>Although the establishment of PISA NC was underway at the time of undertaking the CNA, organisational capacity to form a dedicated and skilled assessment team already exists within the ATC. The Deputy Director of the ATC, with experience of implementing multiple TIMSS cycles, has been appointed PISA NPM. The ATC has used TIMSS experience to develop and implement national large-scale assessments each year since 2010, including management, instrument development, test design, survey operations, data management and analysis, and reporting and dissemination. Some specifics of the ATC's staff arrangements include:</p> <ul style="list-style-type: none"> • The ATC has in-house test developers as well as invited specialists. They also use computerised scoring for the final and entrance exams, with computer facilities and staff, and employ scorers as needed for TIMSS. • The ATC uses outside specialists for translation of test items into Armenian and into other languages as needed. • Co-ordination, design, item development, sampling, implementation, analysis and reporting of the National Studies, all completed within the ATC. <p>While the ATC has these valuable experiences, some areas, such as sampling, linguistic quality control, analysis and reporting, might present challenges as some of PISA's methods and procedures in these areas are different and more complex comparing with other international large-scale assessments. Also, Armenia intends to undertake a CBA for the first time in PISA 2025, and it could add further challenges.</p>	Capacity to carry out a CBA according to the PISA technical standards.
O2 Mobilisation of funding	The large-scale assessment centre is able to mobilise the allocated funds to complete the diverse tasks associated with large-scale assessments. Funding is also mobilised to provide for capacity building of assessment centre staff.	Established	The ATC's regular implementation of TIMSS and the National Studies indicate that the ATC is able to mobilise the allocated funds to complete the diverse tasks associated with large-scale assessments.	
O3 Temporary staff	Clear and transparent criteria and procedures are in place for recruiting and remunerating temporary staff, including translators and reconcilers, test administrators,	Established	The ATC budgets for, and recruits, temporary staff, including subject matter experts, test developers and translation specialists, as needed for assessment activities. Temporary	

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
	quality monitors, coders of constructed response items, coders of occupational data, and data entry and data management support staff.		staff are employed under standard government contracts. Procedures for recruiting temporary staff are well-established and have been used over a number of years.	
O4 Physical infrastructure	The physical infrastructure of the large-scale assessment centre is adequate, i.e. there is sufficient and secure office space, meeting rooms, telephones with international access, secure facilities for data processing, coding operations and storage of assessment material.	Established	The PISA NC will be located within the ATC. The ATC has sufficient physical infrastructure for implementing large-scale assessments, including workstations for staff, meeting rooms, secure office space and secure facilities for data processing, coding operations and storage of assessment material.	
O5 IT infrastructure and support	The IT infrastructure of the large-scale assessment centre is adequate, i.e. there are computers running Windows with up-to-date Microsoft Office, high bandwidth internet connection, secure networked environment, secure servers, cloud access/storage, printers, copiers, scanners and email. Necessary specialised software licenses are identified, acquired, installed and maintained. IT personnel is available to support the assessment team in all IT related aspects.	Established for PBA Emerging for CBA	The ATC is well equipped with necessary IT infrastructure to complete national large-scale assessments as PBA. The ATC has IT support staff, secure workstations and other necessary infrastructure. However, improved IT capacity for the ATC staff will be needed when Armenia participates in a CBA for the first time in PISA 2025. While the ATC has experience in CBA in a small scale when conducting the field trial for TIMSS 2023, implementing a CBA on a full scale will be a new experience. In particular, the ATC staff members expressed their concerns during the in-country visit, regarding the use of computers in PISA 2025, noting the challenge of bringing computers to small and remote schools. Such capacity may include assistance with specific software, student delivery, coding system and assessment team support in all IT-related aspects.	Capacity of the ATC staff to carry out CBA, including assistance with specific software, student delivery, logistics, coding system, and assessment team support.
O6 Security policies and procedures	Security policies and procedures are established to ensure assessment material and data is kept secure and confidential. Legally binding measures are in place to ensure compliance (e.g., confidentiality agreements).	Established	Security policies and procedures have been established at the ATC to ensure assessment material and data is kept secure and confidential. All the ATC staff sign confidentiality agreements and are fully aware of and understand the need to keep assessment material and data secure. For PISA implementation, the security policies and procedures can be adapted for PISA 2025 implementation, in accordance with PISA technical standards.	
O7 Instrument development	Quality assurance mechanisms are in place to ensure the assessment instruments (tests and contextual questionnaires) are reliable, valid and fair.	Established	The ATC has significant experience in the development of assessment instruments (both cognitive instruments and contextual questionnaires) for national assessments, graduation exams and university entrance exams. The ATC has a testology department with test developers specialising in a range school subjects, including languages, sciences, mathematics and other areas. A team of specialist test developers for secondary school subjects is supplemented by outside specialists for the university entrance examinations. The ATC runs trainings for test developers.	

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
O8 Translation and linguistic quality control	Where assessment instruments are developed in multiple languages, linguistic quality assurance procedures are in place to ensure the items are linguistically and psychometrically equivalent across multiple languages.	Emerging	<p>While the ATC has a well-developed process of instrument development and quality assurance for translations of English items into Armenian, some of the PISA translation and adaptation processes will be new to the ATC. In particular, PISA requires a process of double independent translation followed by reconciliation to merge the two separate translations. In PISA, two source versions (in English and French) will be provided, and it is strongly recommended to translate each of the source versions into assessment language(s). The ATC is currently planning to use the English source version to adapt/translate assessment instruments given the foreseen challenge of finding French translators who are specialised in the PISA assessment domains.</p> <p>Translation will need to be undertaken through a specialised translation software called OmegaT. In addition, more test items will need to be adapted and translated for CBA than for PBA, as CBA will be an adaptive test which requires a larger pool of items than PBA. A capacity building opportunity in the area of translation and linguistic quality control will be beneficial to the PISA NC in Armenia.</p>	Capacity of the ATC staff to carry out translation/adaptation tasks according to the PISA linguistic quality assurance procedures.
O9 Target population and sampling	The sample frame provides complete coverage of the defined target population. Practicalities for assessing the target population are considered in the sampling design. Exclusions are clearly defined and documented.	Emerging	The ATC has a department specialised in sampling, experience in undertaking sample-based national large-scale assessments and access to the well-established EMIS. However, PISA's target population is age-based while the ATC's experience in large-scale assessments is mostly with grade-based target population. In addition, PISA requires exclusions to be clearly defined and documented while no students are currently excluded from the national large-scale assessments. Capacity may be required of the ATC staff to create a sample frame that provides complete coverage of the age-based target population with exclusions at the school and student levels, being clearly defined and documented.	Capacity of the ATC staff to create a sample frame that provides complete coverage of the age-based target population with exclusions being clearly defined and documented.
O10 Survey operations and logistics	Quality assurance mechanisms are in place to ensure survey operations are standardised, monitored and documented. Measures are in place to ensure participation and to monitor response rates.	Established for PBA Emerging for CBA	<p>Drawing upon the experience of implementing multiple cycles of TIMSS, the ATC is very well-placed to implement the PISA survey operations for PBA.</p> <p>However, considering that Armenia intends to participate in CBA, it will entail more complex survey operations and logistics. For example, ensuring that all PISA participating schools have adequate and a sufficient number of computers, including schools in remote areas, can be challenging. In addition, training test administrators for CBA will be more complex than for PBA. Also, troubleshooting protocols during the test administration period should be well planned. Capacity will be needed for planning quality assurance mechanisms to ensure survey operations for CBA are standardised, monitored and documented.</p>	Capacity to plan quality assurance mechanisms to ensure survey operations for CBA are standardised, monitored and documented.

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
O11 Data management	Quality assurance mechanisms are in place to ensure the final database is free from discrepancies and errors, appropriately structured and documented.	Established	The ATC has experience in data management for the annual national large-scale assessments, the university entrance examinations, the final school examinations and TIMSS. The ATC has experience in following the data management quality assurance measures set in TIMSS. Specialist data manager role exists within the ATC.	
O12 Data analysis and reporting	Technically sound and appropriate data analysis techniques are used to provide analytical results that permit valid and useful inferences about the population(s) of interest. Analytical results are fully documented and reproducible.	Emerging	<p>The ATC has three or four data analysis specialists, including experienced psychometricians. Current data analysis work includes data analysis and reporting of the results of university entrance exams and national assessments. Regarding analysis and reporting of results from TIMSS, those at the international level were carried out by international contractors. Armenia produced national reports of TIMSS results in 2003, 2007 and 2011 (not by the ATC).</p> <p>However, national reports of TIMSS results have not been prepared after 2011 due to limited funding. Therefore, producing a national report based on international assessment results will be a new experience for the ATC. Capacity will be needed to analyse and interpret PISA data and to use the findings from PISA results and their policy implications in the national context.</p>	Capacity to analyse and interpret PISA data and to use the findings from PISA results in the national context.
O13 Dissemination and communication	Appropriate products and approaches to reporting and dissemination are tailored to the different stakeholder groups and promote appropriate and effective use of the assessment data and results by those groups.	Emerging	Results from international large-scale assessments are widely disseminated through the media. The ATC has an annual conference, which provides a forum to disseminate TIMSS, national assessment and examination results to key stakeholders, including ministry officials, school principals and other education specialists. For TIMSS, the release of results reports is announced on television and the reports in print are made available for the public to access. However, these TIMSS reports are limited to those at the international level as national reports of TIMSS results have not been prepared since 2011 (see O12 indicator). Also, tailoring of assessment results to different stakeholders was not reported.	Capacity to tailor products and approaches to reporting and dissemination to different stakeholder groups.

Table A A.3. Individual level

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
11 National Project Manager	There is an appropriately skilled and experienced National Project Manager (NPM) with decision-making authority within the assessment centre to lead the assessment team and to oversee all assessment activities. The NPM is able to communicate effectively, orally and in writing, in English. The NPM is employed on a full-time basis for the duration of the assessment cycle.	Established	<p>The Deputy Director of the ATC has been appointed to the role of PISA NPM. He has decision-making authority within the organisation to lead the PISA assessment team and to oversee all PISA activities. He is able to communicate effectively, orally and in writing, in English. He will be available to work on PISA 2025 in a full-time capacity for the duration of PISA 2025 and will be available to attend the NPM meetings and international training as required.</p> <p>He has experience of leading an assessment team for multiple cycles of TIMSS in Armenia. He has been responsible for other large-scale assessments for establishing an assessment team, using promotional materials to raise awareness of the assessment, supervising staff to complete tasks, maintaining ongoing communication with international contractors, distribution of assessment materials electronically, recruiting test administrators, training test administrators in standardised material and delivery, monitoring the quality of test administration, ensuring security policies and procedures are followed at all times, and implementing a national dissemination strategy to communicate key findings.</p> <p>He anticipates that developing a sampling frame, carrying out data analysis and reporting will be the most challenging aspects of PISA 2025 for Armenia as these were undertaken by international contractors in TIMSS. He anticipates that implementing CBA will be challenging as it is a new assessment delivery mode in Armenia.</p> <p>He has access to infrastructure and equipment (e.g. computer, secure network, workspace) that are required for fulfilling his role.</p>	
12 Assessment instruments co-ordinator	The national-level tasks related to the assessment instruments are overseen by an appropriately skilled and experienced team member, including national item review, organisation of translation, adaptation and verification, coding of constructed response items, and coding of occupational data. If needed, domain and contextual experts are engaged to assist with national item review, linguistic and contextual adaptation, supervising coders and interpretation of findings.	Emerging	<p>The NPM is likely to fill the role for PISA as he did for a similar role when implementing TIMSS. While his experience with TIMSS is highly valued, there are some translation and adaptation procedures of assessment materials which he is not familiar with. One of them is that PISA requires a process of double independent translation followed by reconciliation to merge the two separate translations. Also, translation will need to be undertaken through a specialised translation software. In addition, considering that more test items will need to be adapted and translated for CBA than for PBA, as CBA will be an adaptive testing which requires a larger pool of items than PBA.</p>	Capacity to organise translation, adaptation and verification in accordance with the PISA technical standards.

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
			Building capacity to organise translation, adaptation and verification in accordance with the PISA technical standards may be highly beneficial for this role.	
13 Sampling manager	The sampling manager is appropriately skilled and experienced in sample design and in the use of scientific sampling methods, to oversee and manage all sampling-related activities at the national level.	Emerging	The ATC appointed an appropriate specialist for this role. As information about the sampling manager was not available at the time of conducting the CNA, capacity of this indicator area was rated based on the experience at the organisational level. See “Justification” and “Identified capacity needs” for O9 Target population and sampling.	
14 Survey operations and logistics manager	The survey operations and logistics tasks are organised and overseen by an appropriately skilled and experienced team member, including preparation of school-level materials, school contact and co-ordination, assessment logistics, test administration and training, and national quality monitoring (including monitoring response rates at school and student levels). A good understanding of the security and confidentiality requirements, and the technical support requirements for computer-based delivery (as applicable) is critical.	(To be appointed) Established for PBA Emerging for CBA	This role is yet to be filled. There is a department within the ATC that is specialised in assessment logistics, and a staff member from the department is likely to be appointed to this role. Capacity of this indicator area was rated based on the experience at the organisational level. See “Justification” and “Identified capacity needs” for O10 Survey operations and logistics.	
15 Data manager	The data manager is appropriately skilled and experienced in data management, data processing, quantitative data analysis and using statistical packages such as SPSS, SAS, STATA or R, to oversee and manage all data-related activities at the national level.	Established	A staff member from the ATC is likely to be appointed to the role of data manager. He is Head of the Department of Informatics and Analytical Works of the ATC. He has been working in the ATC since 2005 and has been Head of the aforementioned department since 2019. He has been Data Manager for TIMSS in Armenia. He has experience in validating data collected from students, and in training and supervising data entry and data management support staff. He also has previous experience in reporting statistical analysis from national-level data, for example, analysing the relationship between student achievement data and contextual data, and between teachers’ data and students’ data. He is able to undertake national-level data analysis, use statistical packages (e.g. SPSS, SAS, STATA or R), interpret scores and performance levels, perform descriptive analysis (e.g. frequencies, comparison of mean scores and variances), perform regression analyses, and calculate standard errors to provide information about the spread or variability of a sample statistic around its mean. He will be available to attend the NPM meetings and international trainings as required. He has access to infrastructure and equipment (e.g. computer, secure network, workspace) that are required for fulfilling his role.	

Indicator area	Capacity indicator	Rating	Justification	Identified capacity needs
I6 Data analyst	There is a senior data analyst who is appropriately skilled and experienced in quantitative data analysis and using statistical packages (e.g. SPSS, SAS, STATA or R), to assist with national-level data analysis and reporting. The senior data analyst is familiar with Item Response Theory and is able to interpret item statistics. The senior data analyst is familiar with methods for calculating appropriate standard errors of statistics in complex survey designs to support interpretation of assessment results.	Emerging	<p>The ATC appointed an appropriate specialist for this role.</p> <p>He has experience in validating data collected from students, and in training and supervising data entry and data management support staff. He has experience in writing national-level reports about student achievements based on tests and questionnaire results. He is able to undertake national-level data analysis, use statistical packages (e.g. SPSS, SAS, STATA or R), interpret scores and performance levels, perform descriptive analysis (e.g. frequencies, comparison of mean scores and variances), perform regression analyses depending on the research questions, and calculate standard errors to provide information about the spread or variability of a sample statistic around its mean.</p> <p>However, PISA will be the first international large-scale assessment programme under which national-level analyses and report writing will be undertaken not by the international contractors but by the PISA NC. Therefore, opportunities to build the capacity to analyse and interpret PISA data and use the PISA data in the national context will be highly beneficial.</p> <p>He will be available to attend the NPM meetings and international trainings as required. He has access to infrastructure and equipment (e.g. computer, secure network, workspace) that are required for fulfilling his role.</p>	Capacity to analyse and interpret PISA data and to use the PISA data in the national context.
I7 Information Technology co-ordinator	The team has a full-time IT co-ordinator for PISA's IT-related activities for the implementation of the computer-based survey within schools in their country/economy (if this option is taken).	Established for PBA Emerging for CBA	The ATC appointed an appropriate specialist for this role. As information about the Information Technology co-ordinator was not available at the time of conducting the CNA, capacity of this indicator area was rated based on the experience at the organisational level. See "Justification" and "Identified capacity needs" for O5 IT infrastructure and support.	
I8 Communication in English	The National Centre ensures that qualified staff are available to respond to requests in English from the OECD and international contractors during all stages of the project.	Established	Most of the key staff members of the ATC are generally fluent in English.	

Annex B. Stakeholder and document mapping

Table A B.1. Stakeholder mapping table

Dimensions	Government (national or sub-national)	Education or assessment institutions, organisations, agencies	Representatives in education development partner/ donor organisations
Enabling environment/ Organisational level	<p>NATIONAL</p> <ul style="list-style-type: none"> • Ministry of Education, Science, Culture and Sport of the Republic of Armenia <p>OFFICIALS</p> <ul style="list-style-type: none"> • Ms Zhanna Andreasyann (Minister) • Mr Artur Martirosyan (Deputy Minister for International Cooperation) • Mr Robert Stepanyan (PISA Governing Board Member for Armenia, Head of the Department for Development Programs and Monitoring) <p>DEPARTMENTS AND DIVISIONS</p> <ul style="list-style-type: none"> • Department for Foreign Relations and Diaspora • Division for Foreign Relations • Department for Development Programs and Monitoring • Department for General Education • Division for Development and Implementation of General and extracurricular Programs <p>SUB-NATIONAL</p> <ul style="list-style-type: none"> • Education Departments of Marzpetaran's (regional administrative units) and Yerevan Municipality 	<ul style="list-style-type: none"> • Assessment and Testing Centre • National Centre for Educational Development and Innovation • National Centre for Educational Technologies (in charge of EMIS) 	<ul style="list-style-type: none"> • UNICEF • The World Bank • The Global Partnership for Education • USAID • Asian Development Bank • British Council • European Union

Dimensions	Government (national or sub-national)	Education or assessment institutions, organisations, agencies	Representatives in education development partner/ donor organisations
Individual level		<ul style="list-style-type: none"> • PISA NPM • PISA NC key roles in the areas of: <ul style="list-style-type: none"> ○ assessment instruments, including adaptation/translation ○ sampling ○ survey operations and logistics ○ data management ○ data analysis and reporting ○ IT 	

Table A B.2. Document mapping table

Dimensions	Documents
Enabling environment (Information about education in Armenia)	<ul style="list-style-type: none"> Armenia: ISCED Education System Mapping (2011) – Provided by the Ministry of Education The Law of the Republic of Armenia on Approving “Education Development State Program of the Republic of Armenia till 2030” dated 16 November 2022 (non-official translation) – Provided by the Ministry of Education The Law of the Republic of Armenia on Approving “Education Development State Programme of the Republic of Armenia 2011-2015”, dated 23 June 2011 (non-official translation) – Provided by the Ministry of Education Amendments to the Constitution of the Republic of Armenia: Adopted on 6 December 2015 - www.parliament.am/legislation.php?sel=show&ID=1&lang=eng Law of the Republic of Armenia on General Education: Adopted on 10 July 2009 - www.translation-centre.am/pdf/Translat/HH_orenk/Education/HO_160_N_General_Edu_en.pdf Armenia: Learning poverty brief (2019), World Bank - https://thedocs.worldbank.org/en/doc/579611571223408189-0090022019/original/ECAECCSCARMLPBRIEF.pdf Draft Education Development Strategy is discussed with development partners, article dated 23 February 2022, Ministry of Education - https://escs.am/en/news/11672 Website of the Ministry of Education - https://escs.am/en Global Education Monitoring Report – Armenia (NEPC, 2021) https://gem-report-2020.unesco.org/wp-content/uploads/2021/02/Armenia.pdf Meeting notes from the PISA 2025 CBIS In-country Visit: 11-15 July 2022*
Organisation level (Information about assessment in Armenia)	<ul style="list-style-type: none"> TIMSS 2019 Encyclopedia: Armenia (2019), Arsen Baghadasaryna, Lusine Atoyna, https://timssandpirls.bc.edu/timss2019/encyclopedia/armenia.html Response to the PISA 2025 CBIS Capacity Needs Assessment Questionnaire for Officials (2022) SABER Country Report: Armenia – Student Assessment (2011) – World Bank, https://documents1.worldbank.org/curated/en/677381468218656159/pdf/799360WPOSABER0Box0379795B00PUBLIC0.pdf TIMSS 2019 Encyclopedia: Armenia (2019), Arsen Baghadasaryna, Lusine Atoyna, https://timssandpirls.bc.edu/timss2019/encyclopedia/armenia.html Website of the Assessment and Testing Centre - www.atc.am/ UNICEF Armenia: ANLAS B6 Group Final Workshop: PowerPoint presentation dated 12 July 2022 – Provided by UNICEF Armenia to Improve Education System and Learning Outcomes with World Bank Support, article dated 20 May 2022, World Bank - www.worldbank.org/en/news/press-release/2022/05/20/armenia-to-improve-education-system-and-learning-outcomes-with-world-bank-support#:~:text=Armenia%20to%20improve%20Education%20System%20and%20Learning%20Outcomes%2C%20with%20World%20Bank%20Support,-Share%20more&text=WASHINGTON%2C%20May%202022%20%E2%80%93,Project%20(EIP)%20in%20Armenia Education Experts Analyze the National Learning Assessment System in Armenia, article dated 7 July 2021, UNICEF - www.unicef.org/armenia/en/stories/education-experts-analyze-national-learning-assessment-system-armenia Meeting notes from the PISA 2025 CBIS In-country Visit: 11-15 July 2022* Email correspondence between the Ministry of Education, ATC and CBIS Liaison Officer dated 15 July, 12 August, 1 September 2022*
Individual level (Information about ATC/ PISA NC)	<ul style="list-style-type: none"> Response to the PISA 2025 CBIS Capacity Needs Assessment Questionnaire for Individuals (2022) Meeting notes from the PISA 2025 CBIS In-country Visit: 11-15 July 2022* Email correspondence between the Ministry of Education, ATC and CBIS Liaison Officer dated 15 July, 12 August, 1 September 2022*

Notes: Documents with * indicate that they appear multiple times in the table as they contain information that is relevant to more than one dimension.

Annex C. Capacity Needs Assessment consultations

Table A C.1. List of participants in the Capacity Needs Assessment consultations

Name	Title	Organisation
Ms Zhanna Andreyan	Minister	Ministry of Education
Mr Artur Martirosyan	Deputy Minister for International Cooperation	Ministry of Education
Mr Arkadi Papoyan	Head of the Department for Foreign Relations and Diaspora	Ministry of Education
Mr Robert Stepanyan	Head of the Department for Development Programs and Monitoring PISA Governing Board Member for Armenia (to be confirmed)	Ministry of Education
Ms Susanna Azatyan	Head of the Division for Development and Implementation of General and Extracurricular Programs (Department for General Education)	Ministry of Education
Ms Vardeni Amirkhanyan	Senior specialist of the Division for Foreign Relations	Ministry of Education
Ms Tamara Alexanyan	Senior specialist of the Department for Development Programs and Monitoring	Ministry of Education
Mr Arsen Baghdasaryan	Deputy Director PISA NPM	Assessment and Testing Centre
Mr Artashes Torosyan	Executive Director	National Center for Education Development and Innovation
Mr Artak Poghosyan	Director	National Centre for Educational Technologies
Mr David Avakian	International Aid/ Cooperation Officer	Delegation of the European Union to Armenia
Ms Silvia Mestroni	Deputy Representative	UNICEF
Mr Alvard Poghosyan	Education Specialist	UNICEF
Mr Alexander Plato Hakobyan	Managing Director of External Affairs	Teach for Armenia

Annex D. CNA questionnaires

Questionnaire for officials

Participant information

Please enter your information.

Name	
Job title	
Organisation	
Role in PISA 2025	

Introduction

[Country] is participating in the OECD Programme for International Student Assessment – PISA 2025. ACER has been engaged by the OECD to support [country] in preparing and implementing PISA 2025. One part of this support is to conduct a Capacity Needs Assessment (CNA). The aim of this CNA is to identify capacity assets and needs of [country’s] assessment system for the successful implementation of PISA 2025.

This CNA questionnaire asks you about the capacity assets and needs at the system and organisational levels. We have around [number] questions to ask you and the questionnaire is expected to take approximately 30 minutes.

Voluntary participation and informed consent:

Your participation in this questionnaire is entirely voluntary and explained in the consent form that is provided separately.

Section A: Experience in large-scale assessments

A1.	Has your country implemented a large-scale national assessment before? (please circle your answer)	Yes	No	Not sure
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If you have answered “No” or “Not sure”, proceed to A9 {these will be automatically routed online}

A2.	Please list, up to three, most recent national large-scale assessment(s) your country implemented and tell us about when, and with whom it was implemented.	A3. In which year(s) was it implemented?	A4. What were the targeted grades of school education?
#1	[Enter the name of the national large-scale assessment]		
#2	[Enter the name of the national large-scale assessment]		
#3	[Enter the name of the national large-scale assessment]		

Please answer the following questions about the **national** large-scale assessment you listed as #1 in A2.

Name of the national large-scale assessment (this will be populated by the answers above)	
A5. What learning domains were included?	(drop down menu of: <ul style="list-style-type: none"> • Reading/literacy/language • Mathematics/numeracy • Sciences • Social sciences • Computing/information literacy/IT/ICT • 21st century skills/global citizenship/civics)

A6.	How was the performance data measured?	(Please tick all that apply)
a	Raw scores (or averages of raw scores)	
b	Percent correct (per learning domain)	
c	Scale scores	
d	Performance levels on a scale	
e	Described proficiency levels	
f	Linked performance data (to monitor changes over time/between grades)	

A7.	What type of contextual information was collected?	(Please tick all that apply)
a	Gender	
b	Socio-economic status	
c	Language spoken at home	
d	School structures and resources (e.g., public/private status, location of school, school and class sizes)	
e	Teaching and learning practices (e.g. teaching methods, classroom management)	

A8.	What areas of the large-scale national assessment was led by your country? (Please tick all that apply)	(Please tick all that apply)
a	Coordination of the assessment program	
b	Design of the assessment	
c	Item development	

d	Sampling	
e	Implementation of the assessment	
f	Analysis	
g	Reporting	
h	Dissemination of results	

{Questions A5 to A8 will be repeated for each of the national assessments listed in A2.}

A9.	Has your country implemented a large-scale international assessment before? (please circle your answer)	Yes	No	Not sure
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If you have answered “No” or “Not sure”, proceed to A20 {these will be automatically routed online}

A10.	Please list, up to three, most recent international large-scale assessment(s) your country implemented and tell us about when, and with whom it was implemented.	A11. In which year(s) was it implemented?	A12. What were the targeted grades of school education?
#1	[Enter the name of the international large-scale assessment]		
#2	[Enter the name of the international large-scale assessment]		
#3	[Enter the name of the international large-scale assessment]		

Please answer the following questions about the **international** large-sale assessment you listed as #1 in **A10**.

Name of the international large-scale assessment (this will be populated by the answers above)	
A13. What learning domains were included?	(drop down menu of: <ul style="list-style-type: none"> • Reading/literacy/language • Mathematics/numeracy • Sciences • Social sciences • Computing/information literacy/IT/ICT • 21st century skills/global citizenship/civics)

A14.	How was the performance data measured?	(Please tick all that apply)
a	Raw scores (or averages of raw scores)	
b	Percent correct (per learning domain)	
c	Scale scores	
d	Performance levels on a scale	
e	Described proficiency levels	
f	Linked performance data (to monitor changes over time/between grades)	

A15.	What type of contextual information was collected?	(Please tick all that apply)
a	Gender	
b	Socio-economic status	
c	Language spoken at home	
d	School structures and resources (e.g. public/private status, location of school, school and class sizes)	
e	Teaching and learning practices (e.g. teaching methods, classroom management)	

A16.	What areas of the international large-scale assessment were led by your country? (Please tick all that apply)	(Please tick all that apply)
a	Coordination of the assessment program	
b	Design of the assessment	
c	Item development	
d	Sampling	
f	Implementation of the assessment	
g	Analysis	
h	Reporting	
i	Dissemination of results	

{Questions A13 to A16 will be repeated for each of the international assessments listed in A10.}

A17.	Is there currently an established centre that is responsible for implementing PISA 2025? (please circle your answer)	Yes	No	Not sure
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If you have answered “Yes” please continue to question A18.

If you have answered “No”, please continue to Section B.

A18. What is the name of the centre and where does this centre sit? (For example, a unit or department within the Ministry of Education or external to the ministry and/or government)

A19.	Is the assessment centre widely recognised in your country as an authority in student assessment? (please circle your answer)	Yes	No	Not sure
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A19.a. Please explain the reason for your answer in A19?

A20.	Which body is the assessment centre accountable to?	(Please tick the most accurate answer)
a	An autonomous board or committee that is institutionally separate from the assessment centre (e.g. the centre is within the MoE and reports to a board not within the jurisdiction of the MoE)	
b	A board or committee that belongs to the same institution as the assessment centre (e.g. the centre is within MoE and reports to a board from within MoE)	
c	An internal board or committee that sits within the assessment centre unit	
d	Other	

A20.e If you ticked “Other” in A20, please specify:

A21.	How much autonomy does the assessment centre have?	(Please tick the most accurate answer)
a	Has complete autonomy. It can make decisions regardless of political party or matters.	
b	It has some autonomy. Some decisions can be made, but decisions may be reversed due to political matters.	
c	It does not have any autonomy at all. It is completely affected by political matters	

Section B: Implementation of PISA 2025

B1.	Has an assessment team been established that is primarily responsible for implementing PISA 2025 in your country? (Please circle your answer)	Yes	In progress	No	Not sure
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If you have answered “Yes” or “In progress” please continue to question B2.

If you have answered “No”, or “Not sure” please continue to Section C.

B2.	Is there an organisation chart of the PISA assessment team? (Please circle your answer)	Yes	In progress	No	Not sure
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If you have answered yes to B2, please provide a copy of the organisation chart to your liaison officer.

B3.	What is the availability of the PISA assessment team members to fill the following key roles to work on PISA 2025? (Please tick that apply)	Full-time	Part-time	Not sure
a	National Project Manager			
b	Survey operations and logistics manager			
c	Administrative Officer			
d	Sampling Manager			
e	Assessment instruments coordinator			
f	Data Manager			
g	Data analyst			
h	IT Coordinator			
i	Translation/Adaptation coordinator			

B4.	Are there written job descriptions for each of the key roles for each of the core assessment team members? (please circle your answer)	Yes	In progress	No	Not sure
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If you answered “Yes” or “In progress” to B4, please provide a copy (in English) of any of the available job descriptions to your liaison officer

B5.	Are there processes and procedures in place to secure extra permanent or temporary staff if needed? (Please circle your answer)	Yes	No	Not sure
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B6. Can you describe the office space available for the PISA assessment team?

B7.	Are there adequate and secure (i.e. safe from unauthorised access, theft, fires, floods): (Please tick the relevant box in each row)	Yes	No
a	Workstations		
b	Meeting rooms		
c	Facilities for data processing		
d	Facilities for coding operations		
e	Storage rooms for assessment material		

B8.	Is there adequate: (Please tick the relevant box in each row)	Yes	No
a	Number of computers running Windows with up-to-date Microsoft Office (one per assessment team member)?		
b	High bandwidth internet connection? (e.g. at least 50mbits/sec)		
c	Secure network and servers? (e.g. requires password to access)		
d	Secure cloud access/storage? (e.g. requires password to access)		
e	Number of printers, copiers and scanners?		
f	Email accounts specific for PISA 2025?		

B9.	Do you have security policies and procedures in place to ensure all PISA 2025 assessment material and data is kept secure and confidential at all times? (please circle your answer)	Yes	No	Not sure
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If you answered “Yes” to B9, please provide a copy (in English) of the security policies and procedures to your liaison officer

B10.	Are confidentiality agreements in place with all relevant staff and contractors who have access to assessment materials and data? (please circle your answer)	Yes	No	Not sure
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If you answered “Yes” to B10, please provide a copy (in English) of the confidentiality agreement to your liaison officer

B11.	In your opinion, do all relevant individuals understand the security and confidentiality requirements? (please circle your answer)	Yes	No	Not sure
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B12. What measures are in place to ensure assessment material and data are kept secure from unauthorised access, theft, fire and flood? Please also consider factors such as storage and transportation/delivery in your answer.

Section C: Legislation and engagement

C1.	Are there national policies and/or guidelines for the implementation of large-scale assessments? (please circle your answer)	Yes	No	Not sure
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If you answered “Yes” to C1, please provide a copy (in English) of the policies or guidelines to your liaison officer

C2.	Is there official documentation that outlines:	(Please tick all that apply)
a	The purpose of large-scale assessments	
b	How large-scale assessments inform education policy and practice	
c	The intended uses of assessment data	

C3.	Are large-scale assessments in your country enacted by legislation? (please circle your answer)	Yes	No	Not sure
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If you answered “Yes” to C3, please provide a copy (in English) of the legislation to your liaison officer

C4.	Is the participation in large-scale assessments of schools and students enacted by this law or regulation? (please circle your answer)	Yes	No	Not sure
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C5. How do senior government officials promote large-scale assessments?

C6.	Are there any key stakeholders who oppose large-scale assessment programs? (please circle your answer)	Yes	No	Not sure
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C6.a. If you answered ‘yes’ to C6, what are their main reasons for opposition?

C7.	What kinds of products will be developed to communicate the assessment results to stakeholders?	(Please tick all that apply)
a	Reports	
b	Policy briefs	
c	Assessment database	
d	Press releases	
e	Media reports	
f	Other	

C7.f. If you answered ‘other’ to C7, please specify

Section D: Funding

D1. How is the implementation of PISA 2025 going to be funded?

D2.	In your opinion, is there adequate funding for the implementation of PISA 2025? (please circle your answer)	Yes	No	Not sure
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D2.a. If you answered “no” to D2, please specify why.

D3.	Has funding been fully secured to participate in PISA 2025 international meetings and trainings? (please circle your answer)	Yes	No	Not sure
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D3.a. If funding has not yet been fully secured, do you expect to secure the funding, and by when?

D4.	What is the main source of funding for the implementation of PISA 2025? (please circle your answer)	Internal sources	Donors or sponsors	Equal contribution of internal sources and donors/ sponsors	Not sure
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D5.	Which development partners/donors (if any) have been actively supporting/funding the development of education in your country?	
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D6.	Please list below the current and planned education assessment projects/programs funded by the development partners/donors:
a	
b	
c	

Section E: Use of large-scale assessment data

E1. If assessment data is used to inform educational policy and practice in your country, please provide examples of how this happens. For example:

- Education policy processes, including education sector planning, monitoring and evaluation
- Resourcing/funding allocation
- Curriculum development
- School development
- School education workforce development (e.g., qualification and professional development of teacher trainers, teachers, school principals)

E2.	Do you expect to face any of these challenges when using large-scale assessment data in your country?	(please tick all that apply)
a	Lack of confidence in the reliability and validity of assessment results	
b	Inability to analyse and interpret assessment data	
c	Your own difficulty in understanding the purpose, intent and findings of the assessment	
d	Wider stakeholders have difficulty in understanding the purpose, intent and findings of the assessment	
e	Difficulty in using the results to inform decision making in education policies and practices	
f	Difficulty in dissemination of the results widely to engage wider stakeholders	
g	Fear of reprisal in light of poor assessment results	
h	Other	

E2.i. If you answered "Other" to E2, please specify:

Section F: Educational Management and Information System

F1.	Has an Educational Management and Information System (EMIS ⁸) been developed within the Ministry of Education? (please circle your answer)	Yes	No	Not sure

⁸ EMIS is a centralised system for the collection, integration, processing, maintenance and use of data and information related to schools, teachers, and students.

F2. If you answered “Yes” to F1, which department or unit of the Ministry of Education or agency/institution is responsible for managing EMIS in your country?

F3. If you answered “No” to F1, please explain how data and information related to schools, teachers and students are currently collected, integrated, processed, maintained, and used:

Section G: Training

G1.	Please select the opportunities (if available) to build capacity of core assessment team members outside of PISA international meetings and trainings. For the areas selected, what form will the capacity building take place (For example, formal qualification, workshop, short course)?	(Please tick all that apply)
a	No opportunities are available	
b	Test development	
c	Translation and adaptation	
d	Test design	
e	Item writing	
f	Sampling	
g	Field operations	
h	Data management	
i	Data analysis	
j	Project management	
k	IT	
l	Other	

G2. If you ticked any of the options in G2, please comment on what form the capacity building will take place.

Thank you very much for completing this Capacity Needs Assessment questionnaire!

Questionnaire for individuals

Participant information

Name	
Job title	
Organisation	
Role in PISA 2025	

Introduction

[Country] is participating in the OECD Programme for International Student Assessment – PISA 2025. ACER has been engaged by the OECD to support [country] in preparing and implementing PISA 2025. One part of this support is to conduct a Capacity Needs Assessment (CNA). The aim of this CNA is to identify capacity assets and needs of [country's] assessment system for the successful implementation of PISA 2025.

This CNA questionnaire asks you about the capacity assets and needs at the individual level. We have around [number] questions to ask you and the questionnaire is expected to take approximately 30 minutes.

Voluntary participation and informed consent:

Your participation in this questionnaire is entirely voluntary and explained in the consent form that is provided separately. If you agree to participate, please sign the second page of the form.

Section A: Your role

A1. Which title best describes your role in PISA 2025?

{Drop down menu for}:

- National Project Manager
- Survey operations and logistics manager
- Administrative officer
- Sampling manager
- Assessment instruments coordinator
- Data manager
- Data analysis
- IT coordinator
- Translation/ Adaptation coordinator
- Other

A1.a. If you selected "Other" in A1, please specify your role.

A2. What previous work experience have you had that has helped you to prepare for your role in PISA 2025?

A3.	Are you a regular employee of the assessment centre ⁹ ? (please circle your answer)	Yes	No	Not sure
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A4.	Are you aware of processes and procedures in place to secure extra permanent or temporary staff if needed? (please circle your answer)	Yes	No	Not sure
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A5.	Do you have a written job description for your roles in PISA 2025? (please circle your answer)	Yes	No	Not sure
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If you answered "Yes" to A5, please provide a copy (in English) of your job description to your liaison officer

A6.	Will you be available to attend the NPM meetings and international training if required? (please circle your answer)	Yes	No	Not sure
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A6.a. If you answered "No" or "Not sure" to A6, please explain why.

A7.	Which aspects of PISA 2025 do you anticipate will be most challenging for your country?	(please tick all that apply)
a	Developing a sampling frame	
b	Translation of materials	
c	Engaging schools to participate	
d	Coordination of participating schools	
e	Training test administrators	
f	Data management	

⁹ By "assessment centre" we are referring to the centre which is responsible for the implementation of PISA 2025 in your country

g	Data entry (if paper-based option is taken)	
h	Data analysis	
i	Dissemination and reporting of data	
j	Other, please specify	

A7.k Please explain why you have chosen those aspects in A7.

A8.	Do you have: (please tick all that apply)	Yes	No	Not sure
a	Your own work computer running Windows with up-to-date Microsoft Office			
b	High bandwidth internet connection (e.g. at least 50mbits/sec)			
c	Access to a secure work network and server (e.g. requires a password for access)			
d	Access to secure cloud access/storage for work (e.g. requires a password for access)			
e	Access to professional printers for school materials			
f	Access to a work email account specific for PISA 2025?			
g	Your own workstation/desk cubicle			
h	Access to meeting rooms that you can book and freely use			
i	Access to video-conferencing software that you can freely use			

A9.	Have you signed a confidentiality agreement to ensure all PISA 2025 assessment material and data is always kept secure and confidential? (please circle your answer)	Yes	No	Not sure

If you answered "Yes" to A9, please provide a copy (in English) of the confidentiality agreement to your liaison office

{Depending on what role was selected at the drop-down menu, selected questions for the following roles will appear on screen.}

Section B: Specific aspects of implementing PISA 2025

National Project Manager

B1.	Do you have authority to make decisions regarding the implementation of PISA 2025 for:	Yes	No	Not sure	If no, please state who has the authority
a	Budgeting				
b	Personnel				
c	Infrastructure				

B2.	Have you been responsible for any of the following for other large-scale surveys (e.g. TIMSS, other national assessments)?	Yes	No	Not sure
a	Establishing an assessment team			
b	Using promotional materials to raise awareness of the assessment			
c	Supervising staff to complete tasks			
d	Maintaining ongoing communication with international contractors			
e	Distribution of assessment materials electronically			
f	Distribution of paper-based assessment materials			
g	Contacting schools			
h	Informing schools of assessment requirements			
i	Recruiting test administrators			
j	Training test administrators in standardised material and delivery			
k	Monitoring the quality of test administration			
l	Ensuring security policies and procedures are always followed (including test administrators, schools)			
m	Developing national reports to summarise all data			
n	Developing national dissemination strategy to communicate key findings			
o	Implementing national dissemination strategy to communicate key findings			

If you have any written plans/procedures (in English) relating to any of the above measures, please provide a copy to your liaison officer

B3.	Will you be available to work on PISA 2025 in a full-time capacity from 2023 onwards? (please circle your answer)	Yes	No	Not sure
------------	---	-----	----	----------

B4. What challenges do you anticipate that you could face in ensuring that you have sufficient staff in your assessment centre to implement PISA 2025?

B5. In which areas of PISA or large-scale assessment more broadly, would you like to develop more expertise?

IT Coordinator

B1.	In your opinion, do you have the IT personnel available to support the assessment team in these IT-related aspects of implementing large-scale assessments?	Yes	No	Not sure
a	Troubleshooting problems with hardware			
b	Troubleshooting problems with networks and internet services			
c	Maintaining data and communications security			

B2. What challenges do you anticipate you could face in ensuring that you have sufficient staff to support the assessment team in the IT-related aspects?

B3. In which areas of PISA or large-scale assessment more broadly, would you like to develop more expertise?

Translation/ Adaptation Coordinator

B1. Please describe your experience in translating and/or adapting tests or questionnaires for large-scale assessments to the national context.

B2.	Will domain experts and contextual experts be available for assisting with national adaptations of items and questionnaires? (please circle your answer)	Yes	No	Not sure
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B3.	Will the PISA 2025 assessment items and questionnaires need to be translated for the national context? (please circle your answer)	Yes	No	Not sure
------------	--	-----	----	----------

B4.	Will domain experts and contextual experts be available for:	Yes	No	Not sure
a	Reviewing the translated science test items			
b	Reviewing the translated mathematics test items			
c	Reviewing the translated reading test items			
d	Reviewing the translated questionnaire items			
e	Reviewing the translated items from the innovative domain "Learning in the Digital World"			

B5.	Are you aware that translation of the PISA instruments will require at least three professional translators to work individually on every element of the translation? (please circle your answer)	Yes	No	Not sure
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B6. In which areas of PISA or large-scale assessment more broadly, would you like to develop more expertise?

Sampling manager

B1.	In relation to sampling activities, do you have access to:	Yes	No	Not sure
a	A central database such as an education Management Information System (EMIS)?			
b	A database that provides full details about every school in your country			
c	A database that provides the number of students per age and grade in each school in your country			
d	Accurate and up-to-date enrolment and attendance data for each school in your country			

e	Accurate data for children and youth that are out-of-school ¹⁰			
f	A complete list of the number of students with special needs in each school			

B2. Please describe any potential challenges in assessing the target population in the sampling design, including students with special needs, students in areas that are difficult to reach (e.g. as a result of conflict, remoteness), and students with a minority language or specific ethnic background.

B3. In which areas of PISA or large-scale assessment more broadly, would you like to develop more expertise?

Data manager

B1. In previous large-scale assessments, how have you monitored school participation and student response rates?

B2.	Do you have previous experience from large-scale assessments to:	Yes	No
a	Validate data collected from students		
b	Train and supervise data entry and data management support staff		

B3.	Will the assessment centre be able to:	Yes	No	Not sure
a	Undertake national-level data analysis			
b	Use statistical packages (e.g. SPSS, SAS, STATA, or R)			
c	Interpret scale scores and performance levels			
d	Perform descriptive analysis (e.g. frequencies, comparison of mean scores and variances)			
e	Perform regression analyses depending on the research questions			

¹⁰ Children and youth who are not enrolled or not attending school

f	Calculate standard errors to provide information about the spread or variability of a sample statistic around its mean			
g	Use correction techniques in the form of sampling weights to adjust the sample and account for biases			

B4. Please describe your previous experience in recording and reporting statistical analysis from national-level data

B5. In which areas of PISA or large-scale assessment more broadly, would you like to develop more expertise?

Thank you for completing this Capacity Needs Assessment questionnaire!

PISA

Capacity Needs Assessment: Armenia

The Organisation for Economic Co-operation and Development (OECD)'s Programme for International Student Assessment (PISA) measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges.

Based on the experiences of the support programmes provided in PISA previously, PISA 2025 offers new participants the Capacity Building and Implementation Support (CBIS) option. CBIS aims at providing new participants with specific and targeted support for their successful implementation of PISA 2025.

At the outset of CBIS, a Capacity Needs Assessment is carried out to assess the participants' capacity to implement PISA. The assessment provides information about their capacity assets and needs in relation to what is required to implement PISA successfully. This report presents detailed findings of the assessment for Armenia. The results are being used to design a capacity building plan for Armenia that will be implemented by the OECD, its contractors, the Ministry of Education, Science, Culture and Sport of the Republic of Armenia and Armenia's Assessment and Testing Centre.

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