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Ten Moves Ahead: Armenia's Education Governance and Financing for Equitable Access

Rapid Education Diagnosis (RED)

Disclaimer

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List of acronyms

ADB	Asian Development Bank
AMD	Armenian Dram
ANQA	National Centre for Professional Education Quality Assurance
ARMSTAT	Statistical Committee Republic of Armenia
bn	Billion
ATC	Assessment and Testing Centre
CBIT	Capacity-building Initiative for Transparency
CEP	Centre for Educational Projects
CIF	Competitive Innovation Fund
CVET	Continuing Vocational Education and Training
EC	European Commission
EE	Energy Efficiency
EIB	Education Inspection Body
EMIS	Education Management Information System
ESA	Education Sector Analysis
ETF	European Training Foundation
EQF	European Qualifications Framework

EU	European Union
FG	Focus Group
FY	Fiscal Year
GEF	Global Environment Facility
GER	Gross Enrolment Ratio
GDP	Gross Domestic Product
GIZ	German Agency for International Cooperation
HE	Higher education
HEI	Higher Education Institutions
ICT	Information and Communication Technologies
IVET	Initial Vocational Education and Training
KPI	Key Performance Indicator
LAN	Local Area Network
MoESCS	Ministry of Education, Science, Culture and Sports
MES	Ministry of Education and Science
MoF	Ministry of Finance
m	Million
MLSA	Ministry of Labour and Social Affairs

NCEDI	National Centre for Educational Development and Innovations
NCET	National Centre for Educational Technologies
NCVD	National Council for VET Development
NCVETD	National Centre for Vocational Education and Training Development
NER	Net Enrolment Rate
NGO	Non-Governmental Organisation
NIE	National Institute for Education
NQF	National Qualifications Framework
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PPP	Public-Private Partnership
RA	Republic of Armenia
RED	Rapid Education Diagnosis
RPPC	Republican Pedagogical-Psychological Centre
SDGs	Sustainable Development Goals
SER	Support to Education and Skills Reforms
SQF	Sectoral Qualifications Frameworks
STEM	Science, Technology, Engineering and Mathematics

TICTRF	Textbook and ICT Revolving Fund
TIMMS	Trends in International Mathematics and Science Study
UN	United Nations
UNDP	United Nations Development Programme
VET	Vocational Education and Training
WBL	Work-based Learning

Synthesis for policymakers

The Rapid Education Diagnosis (RED) is a holistic, evidence-based and data-rich assessment of the Armenian education sector focusing mainly on three dimensions of analysis: inequalities, financing and governance.

This work was undertaken as the first component of the regional programme Support to Education Reforms and Skills (SER) in the Eastern Partnership. Funded by the European Union (EU – DG ENEST, formerly DG NEAR) and implemented by the European Training Foundation (ETF), the €2.5 million programme (2024-2026) also comprises two complementary components aimed at strengthening institutional capacity and promoting peer learning and training.

The RED follows a methodology previously developed by the ETF and successfully applied in other countries. By contributing to the identification of the critical elements, including system's weaknesses, policy gaps, bottlenecks and risks, it aims to help the Government of the Republic of Armenia (hereafter, RA or Armenia), the European Union (EU), and development partners to target their priority interventions effectively, to identify institutional capacity development needs and to inform the policy dialogue between the EU and Armenia. Consequently, the report places greater emphasis on challenges rather than on the progress and achievements of the current education policy reform (Education Development Programme 2030), which nonetheless merit acknowledgment.

This synthesis for policymakers presents the main considerations for the attention of the above-mentioned stakeholders, while the supporting quantitative and qualitative evidence, together with the data sources, is provided in the core document.

Context

The Republic of Armenia faces various challenges in its education sector notably linked to its broader socio-economic context. The country suffers from a declining population, particularly due to a high emigration rate and a relatively low fertility rate. Shocks such as the influx of over 100 000 Armenian civilians from the Nagorno-Karabakh region, including nearly 30 000 children[1],

[1] According to the Migration and Citizenship Service of the Republic of Armenia, 28 641 children (0-18 years old) from Nagorno-Karabakh were forcibly displaced in 2023.

following the September 2023 military operation, create further challenges for the education sector.

Armenia is an upper-middle-income country; however, it still faces significant economic inequalities, with 24.8% of the population living below the national poverty line in 2022[2]. Geopolitical instability diverts priority attention from education, with nearly half of the state budget allocated to security, defence and social protection. While Armenia can potentially count on the financial support of one of the oldest and largest diasporas worldwide, remittances have sharply declined over the last decade.

At the policy level, the education strategy adopted in 2022 was enacted into law, demonstrating significant political interest.

Main findings

Overview of the education system performance

Enrolment trends

The Armenian education system, which mandates 12 years of compulsory education, provides substantial coverage from primary levels onward, aligning with neighbouring countries and international averages. Although preschool education, intended for children aged zero to five, is not mandatory in Armenia, enrolment rates for three- to five-year-olds[3] have been rising, with two-thirds of this age group now attending school. However, early childhood care for infants aged zero to two remains minimal. Access to primary and lower secondary education has remained consistently high, despite minor fluctuations. Gross enrolment ratios (GER) in primary education have experienced a slight decline in recent years, while lower secondary GER has shown modest progress. Upper secondary general education has achieved significant advancements in access; it accounts for approximately two-thirds of the students that completed lower secondary education, the remaining third attending vocational education and training (VET) programmes. Higher education has also shown a steady but slower increase in participation. Higher education enrolments are stagnating after a steep decrease in the second half of the 2010s; they also signal

[2] World Bank, Poverty and Inequality Platform https://data.worldbank.org/indicator/SI.POV.NAHC?locations=AM
[3] The population targeted by preschool education is referred to as the age group of 3- to 5-year-olds, and this age group's population is used for the calculation of enrolment indicators. Even though there are some children in preschool who are already 6 years old, this convention avoids double-counting with the population of 6- to 9-year-olds, meant to attend primary education.

a risk of loss of human capital, taking into account that students in the first cycle of higher education represent the vast majority of higher education enrolments (89%).

Quality and relevance

To assess and benchmark quality of education systems, participation of countries in international assessments is fundamental. While Armenia has been participating in TIMMS since 2003, it will join PISA for the first time in 2025. This makes it slightly difficult to assess and benchmark accurately the average quality of learning[4] . As far as vocational education and training is concerned, its place and role, as a solid bridge between education and labour market, remains to be enhanced, in particular as relevance to labour-market needs would need to be monitored and ensured, and modern (dual) teaching methods further developed.

Inequality analysis

By law, education access should be granted to all children alike, starting from six years old[5]. However, in practice, disparities exist in terms of availability and quality of educational opportunities, depending first and foremost on the place of residence – this includes both differences between urban and rural areas and between regions.

Inequalities in access and retention

Data on access to various education levels reveals evident disparities, particularly in preschool education. Despite a 12% increase in the involvement of children aged zero to five in preschool from 2019 to 2023, access to this level remains significantly limited in Armenia due to insufficient capacity to meet demand, with notable urban-rural differences. Socio-economic status also plays a role, as disadvantaged groups face greater challenges in accessing preschool compared to more advantaged groups, despite State affirmative action measures aimed at complementing community efforts towards equity.

[4] MoESCS comments received in March 2025 shared that last international learning tests (TIMMS 2023) were indicating above-average levels (surpassing the 500-point threshold) in mathematics and science, with a proportion of students failing to meet the minimum threshold decreased (82% now surpassing the minimum threshold and 40% reaching the intermediate level).

[5] According to the Law on education: 'The general education starts from the age of 6 years old (article 15, clause 3). 'A 12-year general or vocational education is compulsory up to the learner's age of 19, if this right was not executed earlier' (article 18, clause 7).

In 2023, the total capacity of public and private institutions met only about 37% of the potential demand for children aged zero to five, and 77% of the demand for children aged three to five – insufficient to meet the actual needs, except in some specific regions.

While access to primary and lower secondary education is essentially universal and does not show significant inequities, regional disparities emerge in Grade 9 graduation rates. In 2023-2024, these rates ranged from 75% in Armavir to over 92% in Lori.

Gender disparities in students' academic performance are also visible in most regions, in favour of girls in some regions and in favour of boys in others, although these differences balance out at the national level. However, in Grade 9, a higher proportion of girls than boys achieved excellent results in 2023-2024. Additionally, there are significant regional gender differences in the proportion of youth who continue in general education or attend VET programmes beyond Grade 9, raising questions about the reasons behind these disparities and their impact on young people's future opportunities.

Inequalities in Quality: Teaching and Learning Conditions

The Armenian education system faces several challenges in providing equal learning opportunities for all children. These challenges relate to the characteristics of the schools, of the teaching force, and to the overall learning environment, with marked differences between urban and rural settings. For instance, 77% of rural schools have fewer than 250 students, while 70% of urban schools have more than 250 students. This goes along with significant disparities in the availability and quality of teaching staff, e.g. 98% of teachers have a pedagogical qualification in Yerevan, compared to only 80% in Tavush; the pupil-teacher ratio also varies significantly, from 7.3 in Aragatsotn to 14.4 in Yerevan.

Furthermore, there are substantial differences in the quality of learning environments, with rural schools often suffering from inadequate infrastructure – some regions report that close to half of general education schools require significant renovation and many rural schools have limited access to digital resources.

Until recent policy measures[6], key issues related to the teaching force included:

- a shortage of teachers, especially in STEM subjects, the arts, foreign languages, and physical education, particularly in rural areas, compounded by an ageing workforce;
- a less attractive job profile compared to other professions, with the average teacher's salary being significantly lower than the national average;
- an increasing, yet generally low, pupil-to-teacher ratio in state general education schools.

It will be important to assess the impact of the newly introduced measures over time, such as the mentor school project, particularly regarding the long-term attractiveness of the teaching profession.

Financial analysis

Education Budget

Given the socio-economic, demographic and geopolitical challenges facing the country, nearly half of the State budget is allocated to social protection programmes (including those targeting children and vulnerable families), as well as defence and national security. Despite recent significant increases in the education budget, public spending on education remains low compared to international figures. Between 2020 and 2023, the State education budget ranged from 2% to 2.3% of the gross national product[7] (international benchmark is 4-6%), while it accounted for an average of 7.7% of the State budget[8] (rising to 8.7% in 2024, but still far below the international benchmark of 15-20%). In the current context, the prospects for a significant increase in education spending in the short term, particularly from domestic resources, are limited. Furthermore, challenges persist in budget planning and execution. In 2023, the budget execution rate was 94% of the revised budget, despite in-year revisions consistently reducing the approved education budgets, while the overall State budgets have been revised upwards.

The largest portion of public spending has been allocated to the general education programme, which has accounted for an average of 63% of the education budget over the past five years.

[6] As per MoESCS' precisions, more than 3 000 new teachers entered the system during 2023-2024, the majority of which were young, STEM-subject teachers. Policies for teacher salary increase were introduced based on an attestation process asserting quality which 20% of teachers passed while about 1 300 additional teachers belong to categories ensuring extra payments. STEM-field teachers (8 200) get extra payments to their salaries (+25%), as well as teachers who work in rural settlement schools (3 200).
[7] UIS September 2024 data release.
[8] State budget data.

Capital expenditure in the education sector has seen a remarkable increase over the past five years, namely related to ambitious infrastructure building and renovation objectives. From 3.62% in 2021, its share of the total education budget rose significantly, averaging 16.4% during 2022-2023 and reaching 40.7% in 2024. The Establishment, Construction, and Improvement of General Schools and Preschool Institutions, as titled in the State Programme for the Development Education until 2030 (hereinafter Education Development Programme 2030), alone, represents one-third of the education budget.

The 2024/2025 academic year marks the second year of implementing a new school funding formula. This approach bases funding for general education institutions on a per-class parameter, replacing the previous per-student funding model. To date, no comprehensive analysis has been conducted to evaluate the impact of this change.

Public Policy Financial Sustainability

The action plan for the Education Development Programme 2030 was costed using a methodology based on estimated unit costs. However, the costing process did not account for projected fiscal space or medium-term budget constraints. As a result, the costs provided are primarily for informational purposes rather than serving as a foundation for developing medium-term expenditure frameworks or annual budgets. Furthermore, the share of these estimated costs which has secured funding (either from domestic or international donors) is not mentioned.

The MoESCS prepared a report on the programme's implementation in 2023, detailing progress for each activity in the action plan. However, the report lacks financial data, which limits the ability to conduct a thorough analysis of public spending on the programme's implementation[9]. This omission also hinders evidence-based planning necessary to ensure the Programme's sustainable financing.

[9] MoESCS clarified that the majority of the Programme activities were funded from the state budget and that these allocations are reflected in separate state budget performance reports, in the form of budgetary measures. Currently, the Government of Armenia has initiated public administration reforms, which include the harmonization and interlinking of strategic documents. This process also entails aligning the Education Strategy with the sector's budgetary measures. ETF recommends assessing the success of these efforts at the occasion of the next progress monitoring occasion.

Governance Analysis

Governance Structure

Armenia has a semi-decentralised education system, hence a complex model of policy implementation. Provisions for cooperation between MoESCS and other ministries are implicitly formulated in legal documents – these include the Ministry of Finance, the Ministry of Territorial Administration and Infrastructure (MTAI), the Ministry of Labour and Social Affairs (MLSA), the Ministry of Health, the Ministry of Justice and the Ministry of Internal Affairs, all of which contribute towards various organisational aspects of educational operations.

Although the MoESCS statute mandates the ministry to contribute to the balanced territorial development of the education sector (among other sectors under its responsibility, namely culture and sports), there are several limitations in the implementation of this principle. For instance, the policy is applied uniformly across all areas, without a differentiated approach based on the specific needs, capacities or resources of each region. Additionally, the statute does not specify how the MoESCS should collaborate with regional educational authorities and local authorities, in particular municipalities/communities responsible for preschool provision; nor does it analyse the implementation of territorial education policy. Similarly, there is insufficient clarity regarding how regional governors carry out their monitoring functions in the education sector.

There are several departments within the ministry, each with its own specific mandate and tasks, but there is generally no regular or timely mechanism for information exchange, consultation, and mutual support. The Department for Strategic Planning and Monitoring is expected to play a crucial role in consolidating the overall education outcomes in the country and informing the design, planning and monitoring of mid- and long-term state programmes in education, sports and culture. Despite the critical importance of this department, its current functional capacity is disproportionately low compared to its designated mandate.

Outside of the ministry, at least eight key agencies are involved in the design, monitoring and supervision of the state educational programmes – they all have diverse responsibilities and should play a vital role in implementing state policies.

Governance challenges

The assessment of the education sector's governance focused on inter-ministerial coordination, internal cooperation across MoESCS departments and with the agencies and organisations linked to the ministry, alignment with educational policy objectives and operational efficiency. It led to identify four main challenges.

- Structural complexity and coordination: Several structures have overlapping mandates, which can lead to inefficiencies in the use of available resources and potential duplication of efforts. The coordination of common tasks and joint activities is currently managed through informal, ad hoc mechanisms, without clear overarching supervision. These challenges are most visible within general education.
- Policy alignment: There is limited alignment between the objectives of the various agencies and the strategic goals of the MoESCS, resulting in gaps in the implementation of the education policy. The revised action plan for the state education programme does not clearly define the roles and responsibilities of these organisations in delivering specific outputs.
- Use of data, monitoring and accountability mechanisms: Despite significant and successful improvement efforts over the last years, the education management information system (EMIS)[10] remains underused for informing policy decision and planning. The existing monitoring and accountability frameworks are either underdeveloped or inconsistent, which affects the transparency, effectiveness and quality assurance of operations, as well as the accountability of implementing stakeholders.
- Resource allocation: Funding and human resources are unevenly distributed across departments and agencies. As a result, some entities face challenges in meeting the increasingly ambitious goals set for them, without corresponding increases in their resources.

[10] MoESCS shared that improvement efforts are currently being deployed within the framework of the World Bank (WB) credit program, including for developing and testing data analysis and visualisation tools, which should be integrated into EMIS, revising the design of the database structure and its use, implementing a data storage and archiving infrastructure, setting up a quality assurance and control tool, and an AI-driven forecasting system. These efforts should enhance the system's ability to generate reports and perform analyses.
The WB project is expected to be completed by December 2025, after which the MoESCS plans to make a comprehensive update of the system, an upgrade of all subsystems within the education management system, and to release mobile applications.

Recommendations

RED's recommendations for improving the performance of the education sector have been organised into three main focus areas, which relate to complementary objectives and offer for each a menu of possible priorities for improvement. Beyond aiming to maximise the impact of the on-going education reforms and policies, these recommendations also endeavour to improve the usual operations of the education system, through:

- improving the governance of the reform
- enhancing the resources to the sector
- reinforcing the institutional capacity of the MoESCS to perform its key functions.

Area 1: improving the governance of the reform (and maximising its chances of success)

1.1 Set up formal coordination frameworks at all levels - to improve reform implementation and maximise results

- Add a chapter on governance in the Education Development Programme 2030 and its action plan, with a view to de-cluster the management of the sector.
- Strengthen interministerial cooperation by operationalising the relationship between MoESCS and the Ministry of Finance, and revise collaboration methods as needed to ensure a stronger link between policy and funding.
- Implement the regulation and reinforce collaboration methods for effective interministerial partnership between MoESCS, MLSA, Ministry of Health, MTAI and the Police for the case management of vulnerable children.
- Create frameworks for regular coordination between MoESCS and regional Departments of Education.

1.2 Ensure participatory governance mechanisms – to improve reform relevance, monitoring and acceptance

- Refine (or associate) the action plan into (to) a real, operational roadmap or dashboard for effective monitoring of progress.
- Create effective reporting tools to be filled in by public institutions implementing the reform.
- Define a framework, tools and consultation mechanisms for regular lessons learnt of pilot interventions and feedback loops from partners on the ground (including teachers and

schools directors, with allowing for anonymous feedback) and entrust an organisation (Strategic Planning Department?) for its consolidation and use.

- Organise an open discussion on the current mechanisms of policy dialogue with representatives of the main stakeholders of the education system and collect improvement suggestions in terms of channels, rhythm and desired content for a two-way communication – and act upon these suggestions.
- Extend the deadlines for public online consultations that are legally required to allow sufficient time for useful contributions and follow up by sharing information on the feedback collected and possibly on remediation measures adopted.

1.3 Organise annual joint-sector reviews - to steer the reform and inform remediation measures

- Learn about international good practice and adopt a robust methodology for effective, evidence-based joint-sector reviews.
- Organise at least once a year a one-week joint-sector review gathering all levels of stakeholders, civil society and development partners, and combining technical and political discussions.

Area 2: enhancing the resources of the education sector

2.1 Optimise state budget utilisation

- Analyse the reasons behind budget underspending and in-year revisions and include the findings in the relevant reports.
- Refine the formal collaboration framework between the Strategic Planning and Monitoring Department and the Finance and Budget Department, and the line departments within the MoESCS to ensure coordinated planning and financing of the education strategy.
- Review and simplify as possible (without jeopardising transparency) the procurement procedures by the educational institutions.
- Secure a budget line/funds to enable the Strategic Planning Department to fulfil its role.
- Ensure appropriate levels of funds for deploying well-facilitated pilots of new reform measures and their proper evaluation to reduce policy ambiguity or conflict, and ensure their sustainability over time for effective scaling-up.
- Enhance the capacity of relevant stakeholders at national, regional, municipal and school levels to use the EMIS as the main basis for budget preparation and financial reporting.

- Update EMIS fields as needed to capture and consolidate financial information from the ground to the central levels

2.2 Diversify financing sources

- **Schools**: Upon verification of legal room for manoeuvre and gathering of international good practice on income-generating activities, encourage both VET and general education schools, through promotion campaigns, to develop these; or review as needed the legislation to allow them.
- **Diaspora**: Add a dimension to the strategic approach to diaspora in the Education Development Programme 2030 in a perspective of resource mobilisation – explore and discuss the possibility of incentives for diaspora contribution (and learn from others' experiences of diaspora education funds, as a possible long-term objective to channel diaspora funds into the education system).
- **Private sector**: Review and adapt the regulatory framework and incentive schemes to promote stronger private-sector involvement especially in VET institutions, including through public–private partnership models.
- **Preschool institutions**: Based on a review and an exposure to different models of preschool management, propose alternative models (including their funding schemes) enabling an increased preschool offer, especially in rural areas.

2.3 Increase efficiency in the use of resources

- **Provide the framework**: List, update and disseminate general principles for the optimal use of resources (e.g. through a circular), such as facilities consumption, multiple use of premises across various education services (e.g. general education, non-formal education, adult continuing training, etc.).
- **Delegate responsibility** and encourage creative asset management schemes: entrust school directors to submit a proposal for efficiency gains based on the abovementioned framework and guidelines to be prepared by MoESCS.
- **Ensure accountability**: Map the stakeholders involved in state budget use and assess channels currently used for ensuring their accountability at national and sub-national levels; create accountability tools whereby actors receiving and managing public money report regularly on their decisional criteria and practices for allocating resources, alongside sharing monetary accounts.

- **Make a cost-benefit analysis** of the outsourcing options for service provision, in particular the outsourcing strategy, beneficiaries, operational area and tendering rules (e.g. private companies, NGOs, teacher training, textbook creation, printing or delivery, etc.) and enforce most efficient options.

2.4 Ensure equity

- **Map and evaluate all the current or recent financial measures**, in particular for levelling inequalities (e.g. rewards and financial incentives for teachers and other personnel, scholarship schemes for students, subsidies, etc.).
- **Set up transparent principles allowing for differentiating the financial support to regions and for affirmative action**, depending on their respective needs, own resources, capacity and potential (priority to remote regions).
- **Create equity measurement tools** inspired from international good practice and entrust the relevant line departments with their regular use.

Area 3: reinforcing the institutional capacity of the MoESCS to perform its key functions

3.1 Vision-building for the education sector

- Review and reinforce the **articulation** – pathways, coordination or synergies – between the **various sub-sector strategies** as formulated in the various chapters of the Education Development Programme 2030 (or its action plan).
- Develop, make explicit and/or make more concrete the strategic steps and actions planned to make **VET and HE more relevant** to the labour market.
- Differentiate more clearly the **vision(s) for preschool services**, between early childhood development and care for zero- to two-year-olds and preschool education for three- to five-year-olds.

3.2 Planning, monitoring and evaluation

- Re-position the **body in charge** of planning, monitoring and evaluation to a higher hierarchical level to **legitimate leadership** (Strategic Planning Department or equivalent attached to the Minister's Cabinet?).
- Visualise, review and clarify the **governance of the data cycle** from production to quality check, analysis and use, including various actors in charge of each step, time frame, guidelines to follow, specific capacity-building needs (see also data collection and analysis).

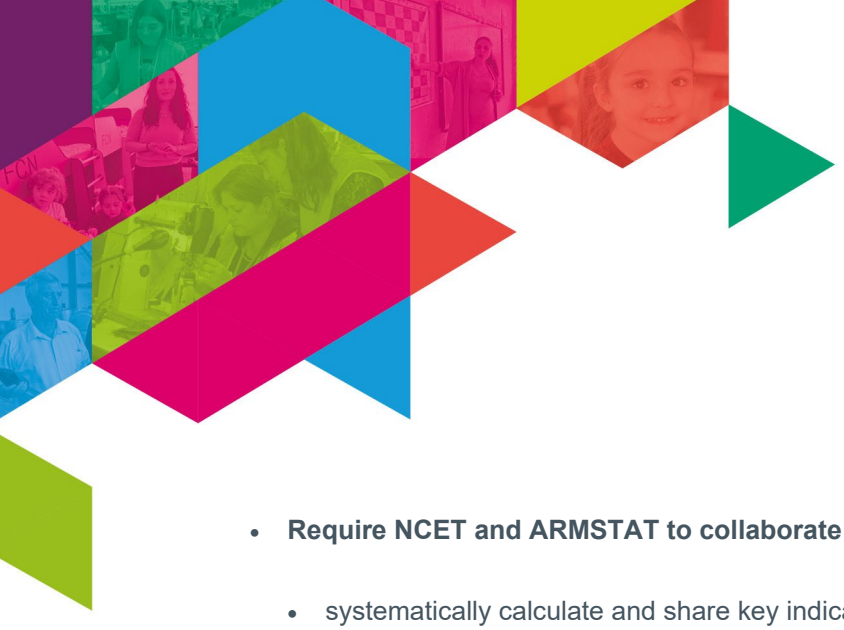
- Adopt a **differentiation approach** in the design of the reform measures **according to the target audience** (e.g. new, young versus senior teachers and the certification process).
- **School offer planning**: Adjust the norms for places by specialty in VET to the data collected with MLSA and reflect on possible sanctions if not respected, as a way to make quality assurance effective. Do an analysis of preschool waiting lists and revise criteria for priority access in a perspective of inequality levelling.

3.3 Implementation of the education policy at the national and sub-national levels

- Propose a **self-assessment tool for all executive agencies** and departments to reflect on their mandate vs their human resources.
- Do a **functional review of regional Departments** of Education and redefine their roles in a realistic manner related to their position, within elected authorities and their resources.
- Facilitate the **'legal literacy'** of stakeholders and beneficiaries on the operational rules of the education system by developing and updating a user-friendly storage of legal documents on the MoESCS website, including a search engine by key words.
- Explore and discuss room for manoeuvre for revising the level of **teacher recruitment processes** or introducing **teacher mobility schemes**, in order to also address teacher shortage issues through greater geographic fluidity.

3.4 Data collection and analysis

- Complete the **list of data gaps** identified in this report through a systematic consultation of main data users, relating these missing data to their expected use, and revise EMIS fields accordingly if needed, including financial flows, specific data regarding schools, teachers and children (suggestions available in the core report).
- Do a **review of the whole education data cycle process** from collection to use, to identify weaknesses, including redundant requests to actors, inefficiencies, inputting and analytical capacity building needs, requirements to streamline the processes and facilitate their use throughout the policy cycle, and pre-requisites for inter-operability with other important national databases (see also in governance).
- Design and ensure resources for a **capacity-building plan** based on user-friendly guidelines' addressing the various data producers in order to ensure quality of data inputs.
- Develop a framework and methodology for the production and use of **qualitative data**, in order to assess the impact of new measures or programmes in almost real time, namely before impact might be seen though EMIS quantitative data.



- **Require NCET and ARMSTAT to collaborate** and:
  - systematically calculate and share key indicators compatible with international benchmarking by education level (ISCED 1, 2, 3);
  - improve the accessibility of EMIS and ARMSTAT online platforms by providing comprehensive footnotes and metadata;
  - make statistical reports available in spreadsheet formats (e.g. xlsx or csv) instead of just PDF to facilitate data analysis.

- Track data on applications for school principal positions: digitalise the submissions and assessment processes of the candidate's school development plan to ensure consistency and transparency of the process.
- Chose an appropriate methodology for using **employability measurement tools** and then coordinate with MLSA for integrating a skills-needs request into employers' surveys, and with VET colleges to implement tracer studies.
- Evaluate the current operationality of the sectorial committees, and in coordination with MLSA, explore the possibility of transforming them into more active sector skills councils in charge of regular **labour market skill-needs' intelligence** able to steer the VET and higher education offer.

3.5 Research and innovation

- Identify officially a body entrusted with the **research and innovation function** and clarify the scope of its mandate (e.g. ad hoc studies, international good practice benchmarking, evaluations of pilot initiatives, etc.).
- Conduct a number of **ad hoc studies** on specific aspects of the Armenian system.
- Define and apply **guidelines for pilots**, including lessons-learnt phase.
- Increase the **analytical capacity** of NCET (training plan for staff).
- Collect **international good practice** on the topics currently under strategic reflection in Armenia and do an analysis of the elements of applicability to the Armenian context, including, for instance, on alternative models for preschool management, school income-generating activities, etc.

3.6 Quality assurance and pedagogical norms

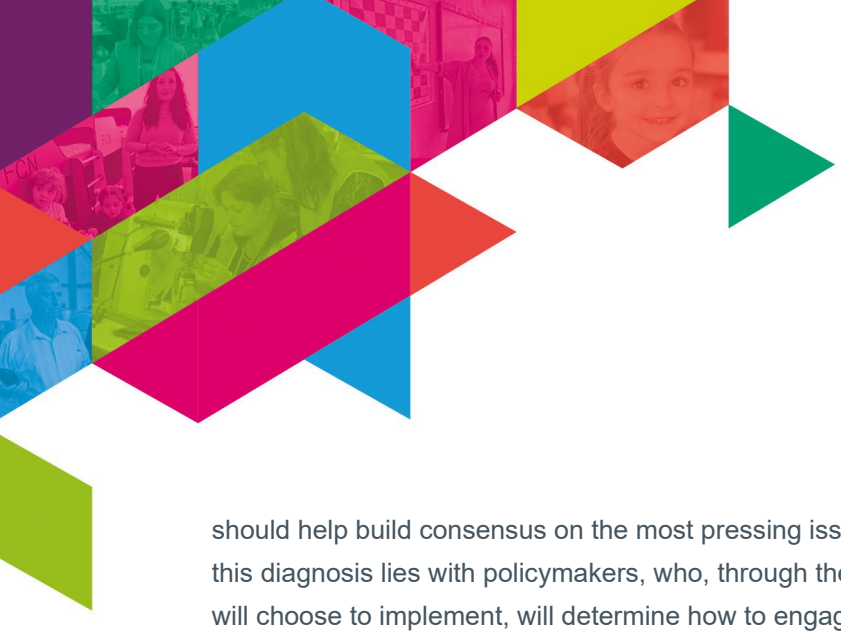
- Define and distribute the key responsibilities for quality assurance among the main existing bodies (or set up a new one?), revising as needed their mandate: Education Inspection Body (EIB), National Centre for Education Development and Innovation (NCEDI), regional departments, National Centre for Professional Education Quality Assurance Foundation (ANQA), etc.
- Revise the reporting and accountability frameworks in great detail, including on the funds received from the MoESCS.
- Make the process for educational staff recruitment, while clarifying paths from one status to the other (in particular, have a differentiation approach for the attestation process depending on the profile and seniority of staff).
- Put in place monitoring and accountability methods of all recruitment processes (teachers, school principals, etc.) ensuring a good balance between effectiveness and quality (especially in remote and border areas), transparency and equity.
- Pedagogical guidance: the expected role of the MoESCS in providing the appropriate pedagogical framework (curricula development, teacher training, etc.) is essential. However, it was not the focus of the RED, hence recommendations have not been developed in this area.

Among these many recommended lines of action, ETF recommends the following immediate priorities for support from the EU or other donors:

- reinforce the Strategic Planning Department (position and hierarchical power, human resources, analytical and planning capacity);
- map and assess the impact of the various financial incentives and supports put in place, for teachers and students, against the objective of inequality levelling;
- put in place transparent accountability frameworks and user-friendly reporting tools at all levels.

Conclusion

While this Rapid Education Diagnosis (RED) may not offer entirely new insights into the challenges facing the Armenian education system – challenges that practitioners are likely already familiar with, either empirically or intuitively – it provides a comprehensive, systematic, data-driven, and hopefully user-friendly clarification of this knowledge. The wide sharing of these findings



should help build consensus on the most pressing issues and priorities. However, the true value of this diagnosis lies with policymakers, who, through the consultation and planning processes they will choose to implement, will determine how to engage with, build on, refine, or plan the follow-up to RED recommendations.

Introduction

Background and Rationale

The Rapid Education Diagnosis (RED) constitutes the first component, or Pillar 1, of the Support to Education Reforms and Skills (SER) programme – a regional initiative supporting the five Eastern Partnership countries: Azerbaijan, Armenia, Moldova, Georgia and Ukraine. Funded by the European Commission and implemented by the European Training Foundation (ETF) under the coordination of Timo Kuusela, Senior Human Capital Development Expert, SER is a three-year programme (2024-2026) with a budget of €2.5 million.

Alongside RED, the programme includes two additional components: Pillar 2, focused on strengthening institutional capacity at country level by addressing needs identified through RED and other assessments; and Pillar 3, dedicated to fostering knowledge exchange and peer learning both among Eastern Partnership countries and between them and EU member states.

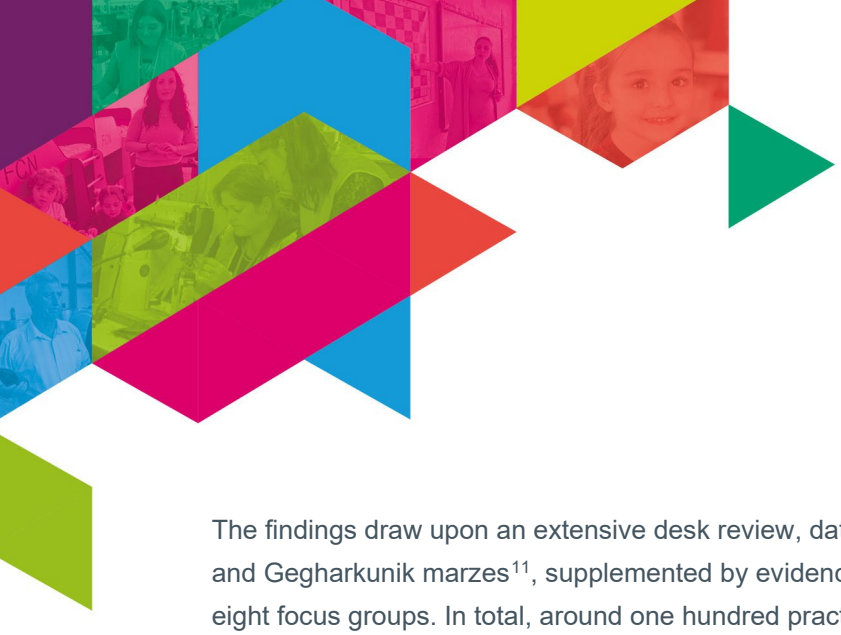
Objectives and Target Audience

The main objective of RED is to identify the most critical ('red') challenges in the education sector – including policy gaps, bottlenecks and risks – and to draw the attention of the Government, the EU and development partners to these priority areas for intervention. It is also intended to inform the policy dialogue between the EU and the Republic of Armenia (RA). Consequently, this document places less emphasis on the progress and achievements of education reforms, though these certainly merit acknowledgment.

The primary audience of this RED report consists of senior officials from the RA Ministry of Education, Science, Culture and Sports (MoESCS), the European Commission and the EU Delegation to Armenia. At the same time, it is also relevant for all stakeholders engaged in Armenia's education system, as well as their development partners.

Methodology and Structure of the RED Report

After briefly introducing the context, this document presents findings from a six-month, intermittent diagnostic assessment of Armenia's education system, emphasising issues of inequality, financing and governance, and offers possible recommendations.



The findings draw upon an extensive desk review, data analysis, field visits, including to Kotayk and Gegharkunik marzes[11], supplemented by evidence gathered through targeted interviews and eight focus groups. In total, around one hundred practitioners of the Armenian education system were consulted to nurture this analysis.

The report's core text provides the main elements of analysis and is illustrated, as deemed useful, with infographics; supplementary information is available in footnotes and textboxes (in particular, to capture qualitative evidence or important remarks raised during the focus groups). The elements of analysis reported here do not pretend to be comprehensive, especially given the intention to primarily focus on critical challenges. In March 2025, the MoESCS provided comments to the initial draft report, which were taken into account and incorporated either in the core text or in footnotes, respecting the time frame agreed for data analysis[12].

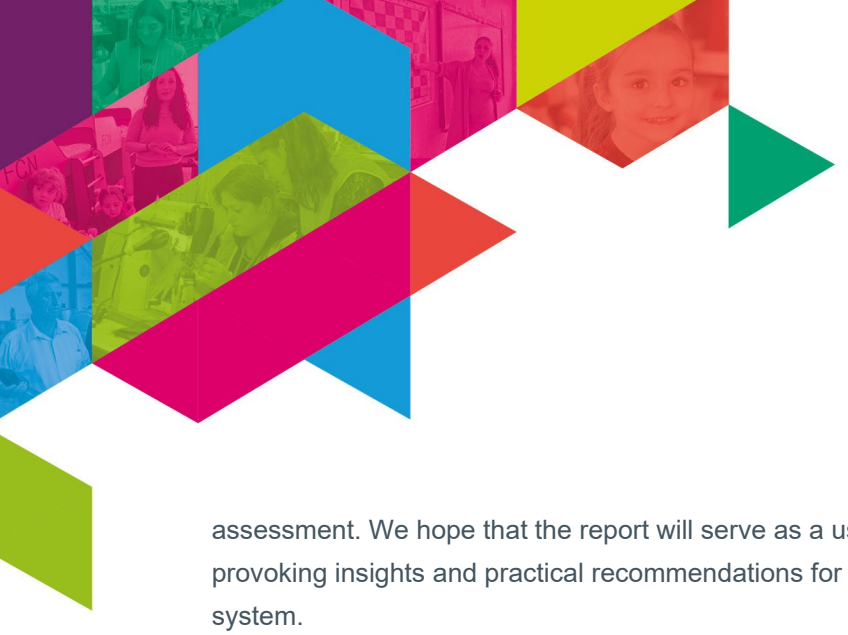
Authorship and thanks

This report brings together the intensive efforts of a broad expert team led by Marie Dorléans, Senior Human Capital Development Expert from ETF. It also involved contributions from ETF colleagues Mirela Gavoci, Stefano Lasagni and Teuta Toth Mucciacciaro, as well as consultants Mariam Martirosyan, Elen Ispiryan, Aram Avagyan, Aleksandr Shagafyan and Luc Gacougnolle, contracted through PPMI. The final internal peer review was carried out by Cristiana Burzio, Alice Aldinucci and Piotr Stronkowski. The work was further facilitated by Vita Glushko from ETF and Stella Tangiyan from PPMI.

The team wishes to express its sincere gratitude to the Ministry of Education, Science, Culture and Sports for its interest and continuous support – in particular to Minister Zhanna Andreasyan, Deputy Ministers Araksia Svajyan and Artur Martirosyan, and all department heads. We also extend special thanks to the national coordinators of the SER programme, Robert Stepanyan and Tamara Aleksanyan, whose steadfast assistance was invaluable for the implementation of RED. The contribution of the National Centre for Educational Technologies is likewise gratefully acknowledged for providing essential data and clarifications.

Finally, we wish to thank all the institutions and practitioners who participated in the interviews and focus groups. Their perspectives greatly enriched the qualitative dimension of this diagnostic

[11] Marz – administrative-territorial unit of Armenia. The country consists of 10 marzes and the capital city of Yerevan with a special status.
[12] Data collected or made public after October 2024 may be reported in footnotes but were not used directly for the analysis, as the report had been largely drafted by that time.



assessment. We hope that the report will serve as a useful resource, providing both thought-provoking insights and practical recommendations for strengthening the Armenian education system.

Context

Figure 1: Armenia map

Source: www.un.org/geospatial/content/armenia-0 last accessed on 20.03.2025

Armenia faces various challenges in its education sector amidst its broader socio-economic context. The country suffers from a declining population of 2.77 million in 2023 compared to 3.5 million in 1990 (World Bank, 2024), particularly due to a high emigration rate13 and a relatively low fertility rate (far below the replacement level)14. The population of children of preschool age (3-5 years old) is estimated to have decreased by 11% in the last three years, and if the trend is sustained, the decline will impact general education as of 2024-2025 (cf. Figure 24 in the Annex). In

[13] Around 30% of the Armenian population lives outside the country (OECD, 2017).
[14] Despite increases since the mid 2000s, the fertility rate in Armenia remains relatively low, at 1.6 births per woman in 2022 (World Bank, 2024).

fact, UN population projections anticipate a further decline of between 32% and 40% of each school age group by 2050 (cf. Figure 25 in the Annex).

Armenia is an upper-middle-income country, with a GDP per capita in current USD of $7 018 (World Bank, 2024c), but with important economic inequalities. 26.5% of the overall population and 30% of Armenian children and youth aged 0-17 are poor (ARMSTAT, 2022) – meaning they have per capita consumption below the national average poverty line equal to 1 727 AMD or approximately 4 EUR per person per day (Ibid.)[15]. The important economic inequalities are reflected in the Gini index, equal to 27.9, the second highest in the Eastern Partnership Region, although below the average in EU countries[16] (World Bank, 2021).

The country can potentially count on one of the oldest and largest diasporas worldwide, the often-cited estimate for the global ethnic Armenian population being 10 million people, with about two-thirds living in the diaspora[17] (Gevorkyan, 2023). However, a sharp decline in remittances can be observed in the last decade: from 19.7% in 2013 to only 7.6% in 2023 (Ibid.), placing Armenia 44th worldwide in terms of remittance size as % of GDP in 2023.

The education sector faces additional strain in the context of shocks such as the arrival of over 100 000 civilians from the Nagorno-Karabakh region following the September 2023 military operation, including 28 641 children (aged 0-18)[18].

These developments take place within a fragile security and political context/regional tensions, making it more difficult to prioritise education amid competing demands on national resources necessarily allocated to both security and social protection, together accounting for nearly half of the national budget.

Education is a key focus area in Armenia's national policies, as outlined in the Programme of the Government of the Republic of Armenia (2021-2026) and the State Programme for Education

[15] In terms of the international standard of extreme poverty – equal to 2.15 USD or **2 EUR per person per day** (World Bank, 2022) – as of 2022, 0.8% of the overall population (World Bank, 2024) and around **2% of children and youth (aged 0-17)** (ARMSTAT, 2023) **survive at less than that rate in Armenia**.
[16] Most recent data available for Belarus (2020), Georgia (2022), Moldova (2021) and Ukraine (2020) are respectively 24.4, 33.5, 25.7 and 25.6. Figures for Azerbaijan are not available. Simple average of most recent data in EU countries (2020-2021) is 30.8.
[17] However, this figure does not account for individuals with partial Armenian heritage, who, according to the Office of the High Commissioner for Diaspora Affairs, are among the most active participants in diaspora engagement programmes both in Armenia and in their home communities abroad (Ibid.).
[18] Of them, 17 849 were enrolled in educational institutions of Armenia. Source: Migration and Citizenship Service of the Republic of Armenia.

Development until 2030, which is the only strategy having been approved by the Parliament[19], among the eight currently under implementation. The aim is to create an inclusive, learner-centred environment, improve education effectiveness, and internationalise education services. The current efforts of MoESCS through this education programme mainly focus on the following reforms[20]:

- the improvement of the education infrastructure, with e.g. construction, renovation or reconstruction of 500 preschool institutions and 300 schools by 2026 with priority towards the optimisation and restructuring of school networks to ensure equal access to quality education;
- the development of new state educational standards (curricula for general education, teacher profiles and teacher training for preschool teachers), following a pilot programme implemented in Tavush marz;
- the improvement of the quality of the teaching force and the attractiveness of the teaching profession, namely through the attestation process as defined in Government Decision No. 596 of 28 April 2022, and attempts to define a structured in-service teacher training;
- a new school-governance system, with the division of management responsibilities between two heads, one responsible for content and pedagogical management and the other for financial and administrative-operational management;
- a new VET law prioritising a VET offer based on labour market needs – part of the solution will be brought through partnerships with the private sector for dual education and through the provision of scholarships for VET specialities targeting requested professions (with 10 times more resources than the ones less in demand);
- the finalisation of the draft of the new Law on Higher and Postgraduate Education, including the creation of an 'academic city' with EU support (2.5 billion euros, 1 trillion drams);
- consolidation of all data on all levels of education, starting from preschool to higher education in the national EMIS database.

External factors like the COVID-19 pandemic and the Nagorno-Karabakh conflict delayed the implementation of the new strategies and reforms. Furthermore, the sector suffers from low

[19] According to the Law 'On Education' (Article 4, point 4), the State Programmes for Educational Development are considered as the organisational base for state policy in the field of education, and approved by the Parliament, i.e. as a law.
[20] Information gathered from the ETF meeting with Deputy Minister Araksia Svajyan, 19 March 2024.

government expenditure on education compared to peer countries, corresponding to only 2.5% of GDP in 2023 (World Bank, 2024), far below the international benchmark of 4%-6%.

Despite these challenges, the Armenian government remains committed to its reform agenda, though adjustments are needed due to budgetary implications, particularly in reallocating resources to prioritise economic and social programmes for post-conflict societal resilience.

Figure 2: Structure, terminology and basic numbers of the Armenian educational institutions

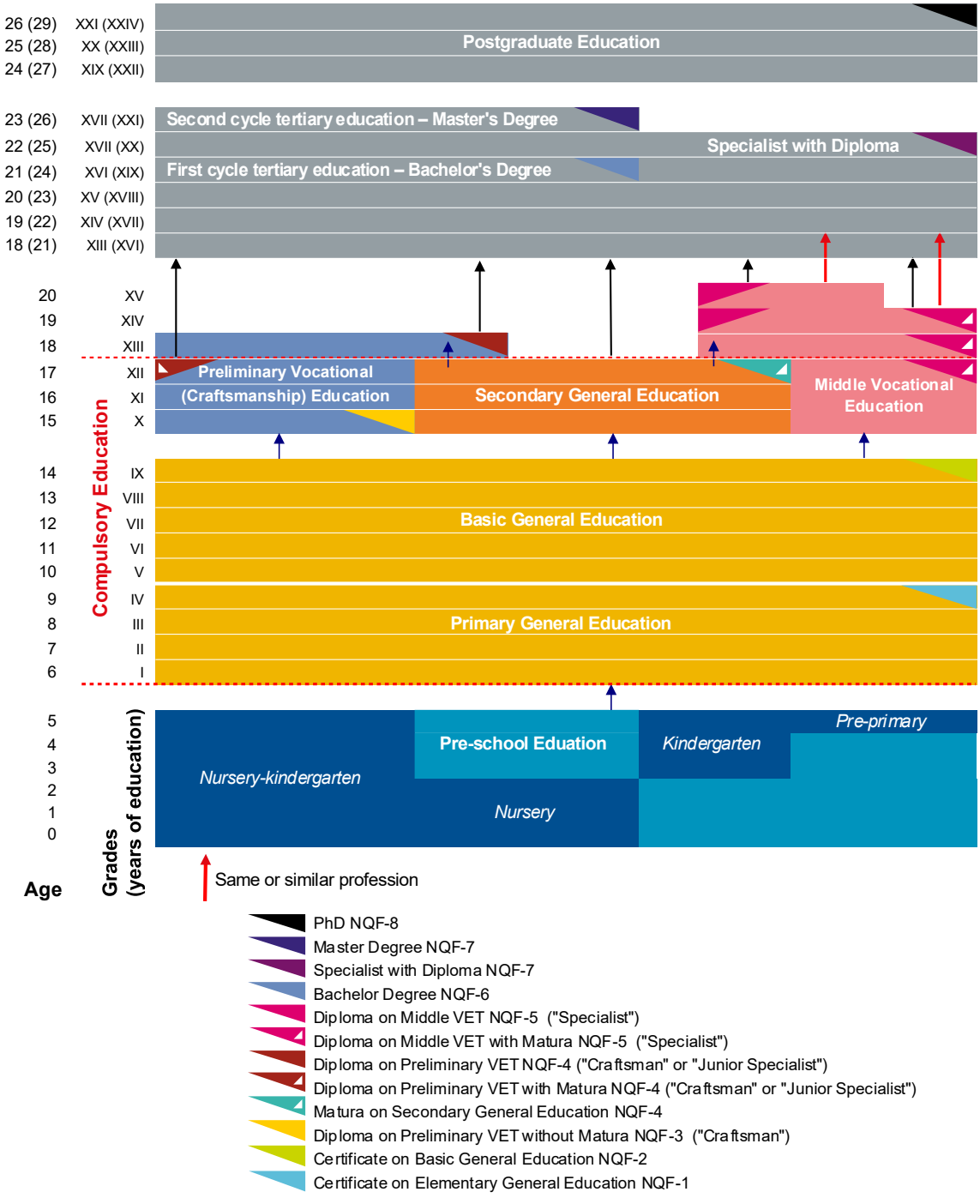
Structure, terminology and the basic numbers of the Armenian educational institutions

The education system in Armenia relies on **12 years of compulsory education for children and youth from 6 to 18 years old** (until 2017, compulsory education was limited to 9 years). The education cycles comprise secondary general education (corresponding to primary, lower and upper secondary in common European terminology), vocational education and training (VET) and higher and post-graduate education. Different types of education institutions coexist to implement the following scheme.

- Early childhood education and development (ECD) services are offered by '**nursery'** (catering to children 0-2 years old), '**nursery-kindergarten**' (0-5 years old), '**kindergarten'** (3-5 years old) institutions; the last year (targeting 5-year-old children) of ECD (then called '**pre-primary**') is sometimes integrated into basic or secondary schools. Armenia counts 917 ECD institutions (including 55 private ones) that account for 77 587 children.
- '**Elementary schools**' offer Grades 1 to 4 education – 11 elementary schools with 1 370 pupils.
- '**Basic schools**' offer Grades 1 to 9 education – 466 basic schools with 207 149 pupils.
- '**Secondary schools'** offer Grades 1 to 12 education – 805 secondary schools with 176 945 pupils.
- '**Senior schools'** offer upper secondary education for Grades 10 to 12 – 105 senior schools with 33 022 pupils.
- '**Gymnasia'** offer Grades 5 to 12 education – 9 gymnasia with 5 591 pupils.
- '**Special schools'** offer education and development programmes for children with special educational needs – 7 special schools with 545 pupils.
- **'Specialised schools'** offer general education programmes specialised in the fields of sports, crafts, arts, military science or other sciences – 11 specialised schools with 4 044 pupils.
- '**Colleges'** stand for VET and offer education after Grade 9 (enrolment is also possible after Grade 12); they provide qualification (Diploma) and secondary general education (Matura) – 120 colleges (including former 'craftsmanship schools', which the new VET law in 2024 re-named colleges as well) with 41 300 students.

Source of data: Social Situation in the Republic of Armenia in 2023. RA Statistical Committee, 2024. https://armstat.am/am/?nid=82&id=2681.

Figure 3: Visual of the Armenian education system



Source: ETF own design

Main findings

Introductory overview of the Armenian education system

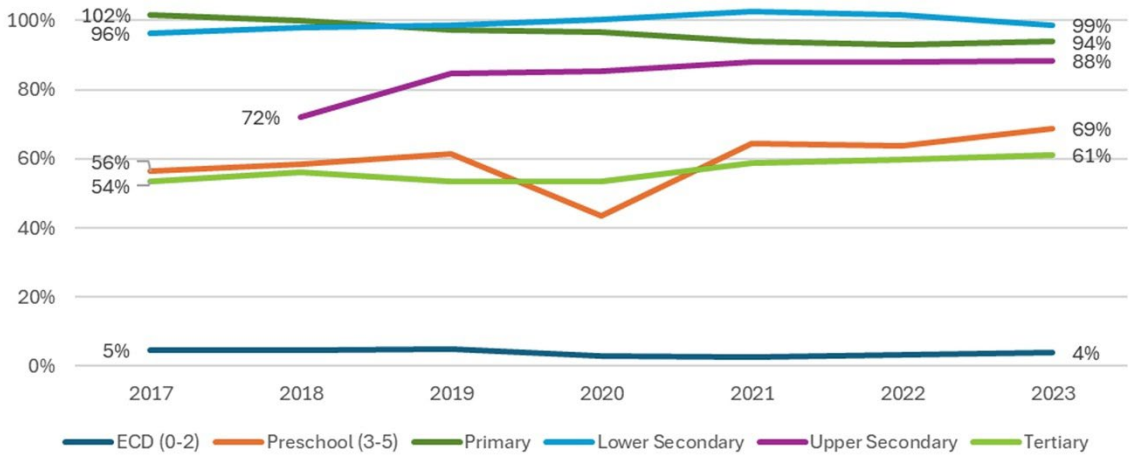
Access to general education

Access to primary and lower secondary education have been consistently high despite small fluctuations; gross enrolment rates (GER) in primary have shown a decline over the last few years (from 102% in 2017 to 94% in 2023), while lower secondary GER has slightly increased (from 96% in 2017 to 99% in 2023).

Significant progress has been made in terms of upper secondary access, with the GER increasing from 72% in 2018 to 88% in 2023.

While preschool education, although not compulsory, has also shown increasing enrolment rates for the three to five age group, early childhood care for infants aged zero to two remains minimal. Participation of children aged three to five increased steadily from slightly more than one in two children (56%) in 2017 to more than two out of three children (69%) in 2023, after a marked dip in 2020 linked to the COVID-19 crisis. Tertiary education has also shown a slightly slower but steady increase in enrolment rates (Figure 4).

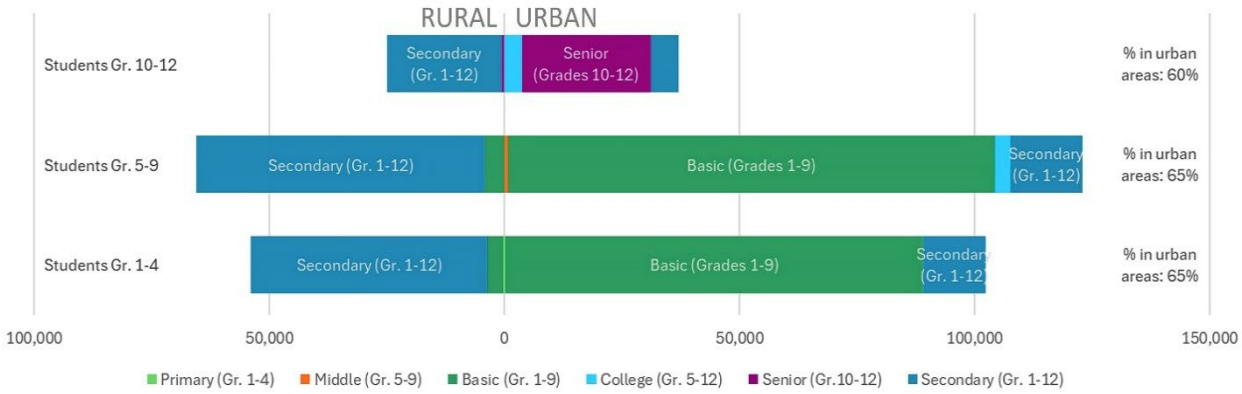
Figure 4: Gross enrolment ratio by education level, 2017-2023



Source: UIS for primary to tertiary education, ARMSTAT for preschool

The vast majority of primary and secondary education is provided in integrated basic schools and secondary schools. In rural areas, 94% of students are educated in secondary schools, offering the whole 12 years of general education, while in urban areas, probably in part due to the larger sizes of schools, most students attend basic schools (Grades 1-9), then high schools (Grades 10-12) (Figure 5).

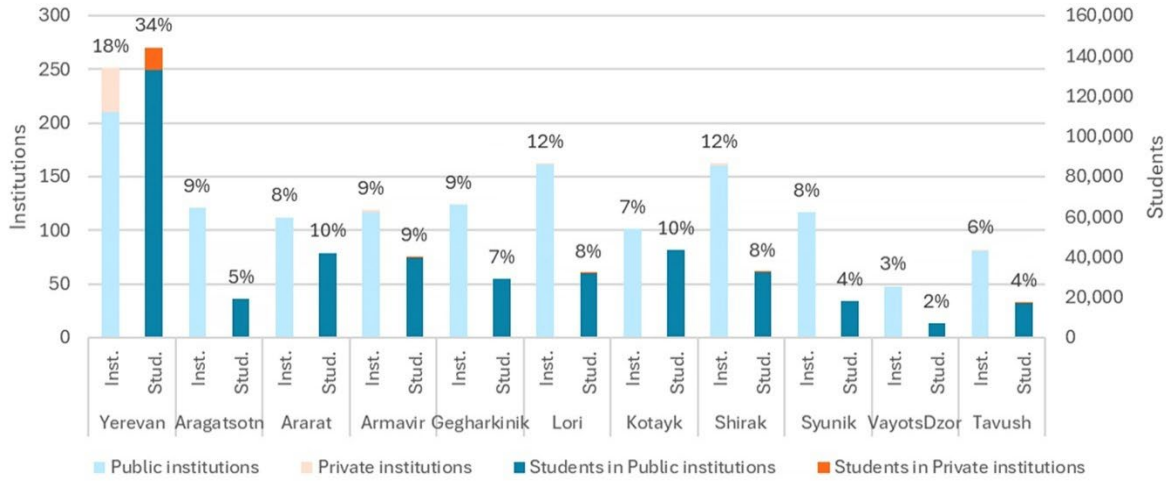
Figure 5: Number of students by type of school, urban and rural, 2023-2024



Source: EMIS and ETF's calculations

Larger schools and private offer are concentrated in Yerevan. Geographically, Yerevan concentrates 18% of the country's general education institutions and 34% of its students in larger schools (574 students per school on average, compared to 245 in the rest of the country). Urban schools in general are larger than those in rural areas: **77% of rural schools have fewer than 250 students, while 70% of urban schools have more than 250 students** (cf. Figure 26 in Annex). Yerevan also concentrates the quasi-totality of **private education opportunities, which represent 16% of the institutions and 8% of the enrolment.** Outside the capital, only Armavir, Lori, Shirak and Tavush have one or two private institutions each, but these cater to at most 1% of these regions' students (Figure 6).

Figure 6: Number of institutions and students, private and public, by area 2023-2024



Source: EMIS

The recent evolution towards fewer teachers and more students leads to an increased, more efficient pupil-teacher ratio. In recent years, there has been a noticeable increase in the number of students enrolled in general education state schools (from 353 580 in 2013 to 413 047 in 2023). Simultaneously, a decline in the number of teachers has occurred (from 38 529 in 2013 to 36 967 in 2023[21]), resulting in a significant rise in the pupil-to-teacher ratio, which has grown from 9 to 11 over the past decade (ETF calculations on ARMSTAT data).

Average quality in general education

International learning assessments are few and have historically shown average or below-average levels in mathematics and science. The last international learning assessment conducted in Armenia was TIMSS (Trends in International Mathematics and Science Study) in 2023, although Armenia participated only in the Grade 4 assessment. According to the results, Armenia's Grade 4 students have improved their mathematics proficiency, achieving a 15-point increase compared to the 2019 scores, and, for the first time, an above-average performance, with a score of 513 (average score is 500). Performance in science has, however, remained below average (with a score of 457), although the proportion of students failing to meet the minimum

[21] These numbers include both teachers who have only teaching tasks and teachers having administrative tasks in addition, the latter having been renamed as lecturers by ARMSTAT since 2018 and separated from the 'only' teachers. It is important to consolidate those two categories to avoid the wrong interpretation of a deep sharp decrease in the number of teachers.

threshold in science has decreased, with 82% now surpassing the minimum threshold and 40% reaching the intermediate level. Furthermore, Armenia is going to take part in PISA 2025 assessment for the first time. Participating in future cycles of international assessments like TIMSS or PISA (the latter being announced) should allow for useful benchmarking of Armenian students' learning achievements.

Enrolments in vocational education and training

The place and role of vocational education and training, as a solid bridge between education and labour market, remains to be enhanced, for a number of reasons.

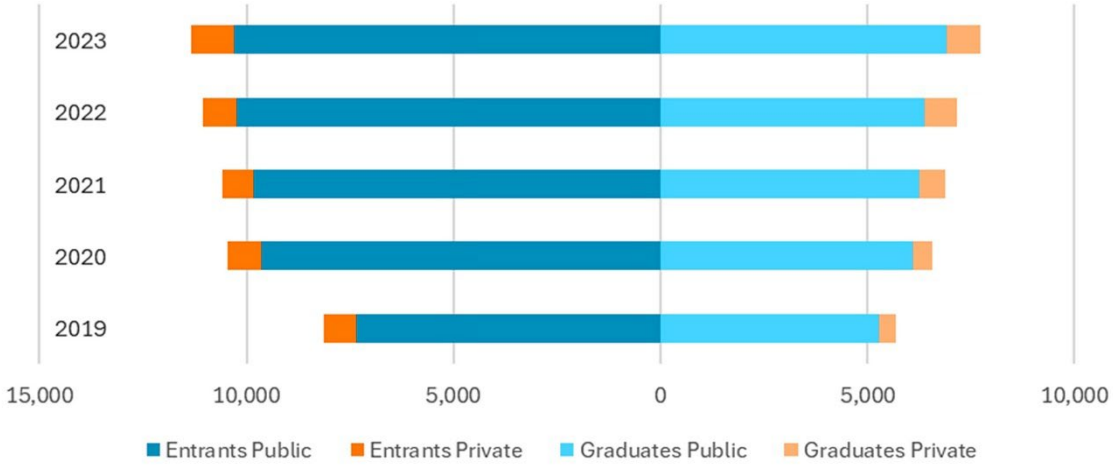
First, the slow but regular increase in enrolments demonstrate students' steady interest, although they remain below international averages. In the academic year 2023/2024, there were approximately 34 000 students in the preliminary (craftsmanship) and middle VET programmes in Armenia, representing 35% of all upper secondary enrolment.

The following diagrams show the dynamics of students' enrolment in and graduation from VET institutions. The number of students choosing VET is increasing in public institutions while the number in private institutions remains the same, mainly in Yerevan (see additional graph in the Annex)[22]. Initial vocational education and training seems to be more accessible and appealing to young learners than continuing vocational education and training programmes are to adult learners[23].

[22] NB: these numbers represent VET educational institutions (colleges and former craftsmanship schools) while VET educational programmes can also be delivered within other type of entities: educational complexes, universities, businesses, etc. In these terms, if the unit in concern is the VET educational programme, then the total number of currently licensed VET educational programmes implemented in the country is around 180 according to the data available on MoESCS website (https://escs.am/am/news/10957.) There is a need for further explorations to understand if VET programmes are reasonably equally available to the students in all regions across the country.

[23] Key Policy Developments in Education, Training and Employment – Armenia 2023, ETF (References are based on the 2023 Torino Process System Report available at: https://www.etf.europa.eu/en/TRP-Armenia-2023.

Figure 7: Number of VET entrants and graduates, private and public, 2019-2023



Source: ARMSTAT

VET graduates may apply for universities according to general rules, however, there are currently limited opportunities for middle-VET graduates to transition to year two of higher education, as this transition is only granted to graduates with high academic grades and within the professions and quotas decided at the MoESCS level. There are no short higher education courses available to VET graduates[24].

Currently, there is no way to monitor systematically the relevance of VET to labour market needs, and the employability of graduates (ETF, 2024)**.** The first reason for this limitation is the absence of regular employers' surveys that would enable stakeholders to determine and monitor labour market needs. Many VET programmes still do not have sufficient connections to the labour market, which adversely affects the employability of their graduates. But also here, the lack of tracer studies limits the ability to measure the gaps.

However, the needs for upgrading the infrastructure and modernising the offer (including for new professions or for modern teaching methods) are well acknowledged. Reports and interviews converge on the VET needs for significant support in infrastructure development and in modernising its offer of new professions. Besides, the share of professions taught via the dual model in 2023 was only 5%, and that of educational institutions involved in it is 18.3%.

[24] Ibid.

In terms of VET offer, the few inspections carried out by the Education Inspection Body (EIB) have revealed cases of non-compliance with the norms defined for each speciality, particularly with the number of admitted applicants exceeding the prescribed limits. However, due to the absence of larger-scale inspections, limited data on local labour market needs, and the lack of a robust, data-driven planning approach at the central level, it is difficult to go beyond identifying the gap between existing norms and actual practices. The relevance of VET school principals' decisions should be assessed in light of labour market needs; if found to be appropriate, such practices could inform a revision of how norms are defined (which is also unclear) and updated.

VET quality assurance: current practices of the Education Inspection Body

According to the 2023 reports of the Education Inspection Body[25], which inspected 10 VET institutions (out of 152 institutions in total), the most frequently registered violation of legislation relates to the process and requirements for applicants' admission, as the ceiling by speciality, fixed by norm, is often exceeded.

In addition to the state inspection of VET education for appropriate legislation compliance, since 2021 the EIB has also practiced assessing the quality of VET service provision, although among a very limited number of VET institutions. In the 2022 report, the EIB claims that the issues related to the quality-of-service provision range from the processes and practices of organising the student internships (professional experience acquisition) to the availability and access to necessary resources and assets, etc.[26]

[25] EIB 2023 Annual Report and EIB 2023 4th Quarter Report, https://eib.am/hy/report. Out of 152 inspected educational institutions, only 10 were for VET (2 craftsmanship schools and 8 colleges). In 9 out of the 10 inspected VET institutions, violations and/or incompliance with RA education legislations were registered. This high rate is not illogical though, as it probably derives from the fact that EIB choice of schools to be inspected stems in many cases from expressed complaints (meeting with EIB, March 2024). The legislation compliance issues, among others, are related to the violation of licence requirements for applicants' admission (more applicants admitted then the licence norms allow), to the requirements of forming examination commission process and to the fulfilment of institution's director's duties and responsibilities

[26] EIB 2022 Report of VET Educational Process Quality Assessment, https://eib.am/hy/report.

Work-based learning

According to the MoESCS 2023 Report on the Progress of the Education Development State Programme[27], a work-based (dual) education system was developed and piloted for four agricultural specialties[28]. The objective is to implement this model in agriculture, IT, winemaking, tourism, engineering and logistics qualifications. **The share of professions taught via the dual model in 2023 was 5%, and that of educational institutions involved in it was 18.3%.**

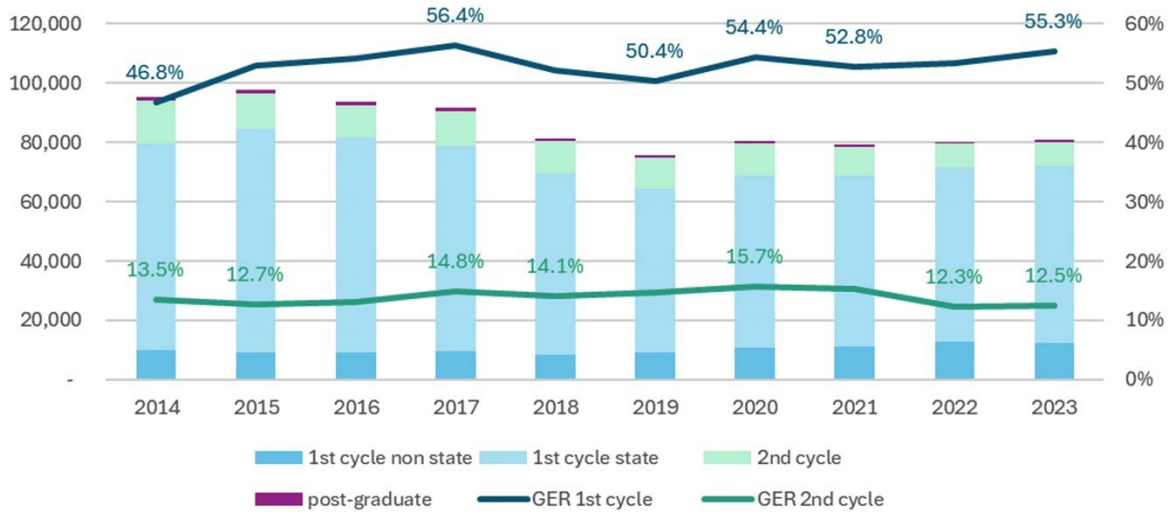
Based on preparatory steps and assessments, 12 long-term dual VET courses in 10 VET institutions for selected specialisations in the abovementioned sectors have been launched. In addition to long-term programmes, GIZ supported the piloting of three short-term dual **VET courses (duration four to five months) for new professions in four VET colleges**, catering to the needs of private sector companies. The role of short-term programmes is very important in terms of continuous and lifelong learning as they allow for responding very quickly to the gaps and demands for specific positions in private companies[29]. For preliminary (craftsmanship) vocational education, 21 priority qualifications, and for middle vocational education 14 priority qualifications are defined[30].

Enrolments in higher education

Higher education enrolments are stagnating after a steep decrease and signal a strong risk of loss of human capital. Enrolment in higher education saw a steep decrease (- 25%) in the second half of the 2010s, and after a slight regain in 2020, have remained stable. **Slightly more than half (55%) of youth aged 21-24 are enrolled in the first cycle of higher education**, representing the vast majority (89%) of all higher education enrolments, up from 84% in 2014. This shift reflects an overall increase in first-cycle student numbers, largely driven by enrolments in non-state institutions, alongside a decline in second-cycle and postgraduate enrolments. These trends have occurred against the backdrop of a shrinking higher education-age population, which has decreased by 23% for the first cycle and 40% for the second cycle since 2014. This pattern raises concerns about the potential outmigration of educated youth, including those who might otherwise have continued their studies, thus undermining the development of Armenia's human capital. However, the reasons behind the decline would deserve to be further analysed in order to confirm the role of emigration in it.

[27] https://escs.am/files/files/2024-04-01/65be0c23cac0b14400d7cf979164cf9c.pdf.
[28] The introduction of a dual VET system in Armenia is inspired by the German model but takes into consideration the local developments in VET and the structure of the private sector. According to this methodology, a cooperation framework between the public and private sectors is established, a skills analysis in selected sectors and the identification of training needs are carried out. Additionally, the methodology ensures quality of the trained staff and skills recognition by the private sector. GIZ supports the institutional setup of qualifications in VET colleges and the organisation of work-based learning (WBL) in private companies, as well as human capacity development measures for VET teachers and in-company instructors in the private sector. MoESCS also refers to the GIZ methodology on implementing the dual approach for other projects in the VET system, which are mainly funded by the EU.
[29] https://www.giz.de/en/downloads/GIZ_PSD%20TVET_Dual%20TVET%20Results.pdf
[30] https://escs.am/files/files/2023-08-25/7c9317ec367363d5640fc94a7f1e0e13.pdf.

Figure 8: Number of students in higher education and gross enrolment rate, private and public, 2019-2023



Source: ARMSTAT

1. Inequality analysis

1.1 Inequalities in access and retention

Despite high enrolment rates overall (except for preschools), inequalities remain within the Armenian education system, in particular as relates to preschool and education opportunities beyond Grade 9.

Access to preschool education: Despite significant recent increases in both enrolment and participation in preschools (net enrolment rate increased from 42% in 2020 to 64% in 2023), further progress is hampered by a lack of sufficient capacity to meet the potential demand, significant rural/urban disparities, and challenges in data management and transparency. This uneven access to preschool is a risk factor for ensuring equality of opportunities, as confirmed by research literature[31].

- **Access to preschool, which is not compulsory, is made inequitable by the lack of offer; there is a discrepancy between the first two and the last year of preschool, as efforts are made in priority on the latter. Over the past decade, despite increases in**

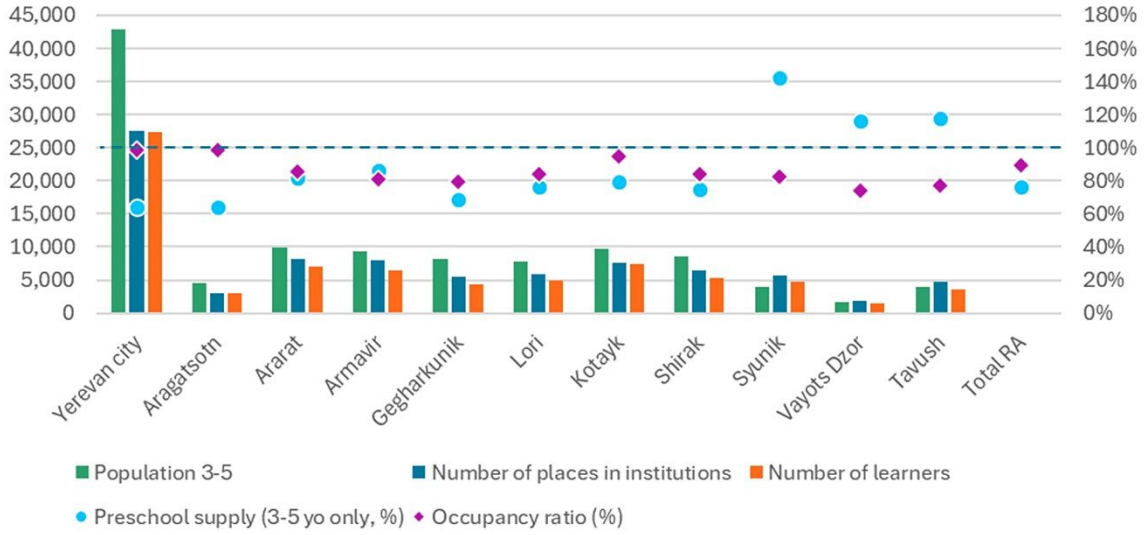
[31] Access and enrolment in early childhood education and care (usually for children between 0 and 5 or 6 years old) is important not only for its positive impact on pupil outcomes in primary education and beyond (del Boca, Monfardini, & See, 2023), but also because it is a means for levelling inequalities at birth (Fessler & Schneebaum, 2019). Dietrichson, Kristiansen, & Viinholt (2020) conducted a systemic review of the impact of preschool on long-term child outcomes and found that it tends to be more beneficial for children with low socio-economic status, irrespective of gender.

enrolment and in the number of institutions[32], preschools still cannot accommodate all potential pupils. The increase in the number of preschool institutions combined with a decrease in the population of the corresponding age contributed to the increase of the enrolment rate. But while enrolment in preschool education has increased over the past decade[33], participation remains far from universal. In 2023, the number of places (design capacity) was insufficient to meet the number of children to be enrolled in the country. **The total capacity of public and private institutions was limited to slightly more than 84 000 places, equivalent to about 37% of the potential demand of children aged 0-5 years old** (approximately 227 000), or **77% of the population of children aged 3-5 years old**, which means that it would need to increase significantly to accommodate this age group alone. Private institutions, which can help expand the education offer, are currently only operating in Yerevan.

- **Yet, the occupancy of the existing facilities is relatively low (89% overall in Armenia).** While preschool institutions operate at full (99%) capacity in Yerevan and Aragatsotn (and at 95% capacity in Kotayk), occupancy ratios in other marzes are below 86% (and as low as 74% in Vayots Dzor). The low occupancy level suggests that there may be additional barriers to access to preschool, e.g. inflexible working hours, low trust in those institutions or indirect costs for example. Also, due to the higher unemployment rate in the rural areas, some families prefer to play the caregiving role and refuse the education role of preschools. In Syunik, Vayots Dzor and Tavush, the supply in terms of preschool capacity is greater than the number of three- to five-year-olds. Although these extra spaces may be used for younger children as well, **these discrepancies highlight the need for well-targeted expansion of the preschool offer to priority marzes (Yerevan, Aragatsotn and Kotayk)**.

[32] There were 917 preschool institutions in 2023 (including 55 private institutions), a noticeable increase from 606 in 2010 (+ 42.4%), although the total capacity increased only by 16% over the period.
[33] Enrolment in preschool increased by 23 773 students during the 2010-2019 period.

Figure 9: Population of 3- to 5-year-old children, number of places in preschool institutions, number of learners, preschool supply ratio34 and occupancy ratio, by region, 2023



Source: ARMSTAT

- **Access to preschool education also suffers from a significant gap between urban and rural areas.** Many rural areas lack preschool institutions entirely, creating a stark contrast with urban areas where public offer is complemented by private preschools, most of which are concentrated in Yerevan. **In 2023, the gross enrolment rate was 36.2%, forming 45.9% in urban and 23.5% in rural settings.** Out of 972 public preschool institutions (55 private), 482 were in urban communities and 490 in villages, leaving a total of **201**[35] **communities without any preschool services**[36]**.** Among the marzes, in 2023, the enrolment rate of children in preschool institutions varied from approximately 51% and 46% in Syunik and Yerevan to 25% in Gegharkunik and 29% in Aragatsotn and Lori. In addition, the Integrated Living Conditions Survey (ILCS) 2019 found lower levels of enrolment of children in preschool education among poor households compared to non-poor households.
- **Another disparity in access to early childhood education relates to the difficulties faced by disadvantaged groups in accessing preschool** services compared to more advantaged groups. While preschools are often subsidised by communities, this support

[34] Preschool supply ratio was defined as the ratio of the design capacity (or number of places) for 0- to 5-year-olds to the population of the same age.
[35] The distribution of these communities per regions is not available for 2023. The latest list of communities without preschool institutions for all regions was provided in the 2020 RA Ombudsman's report.
[36] They were 229 in 2021.

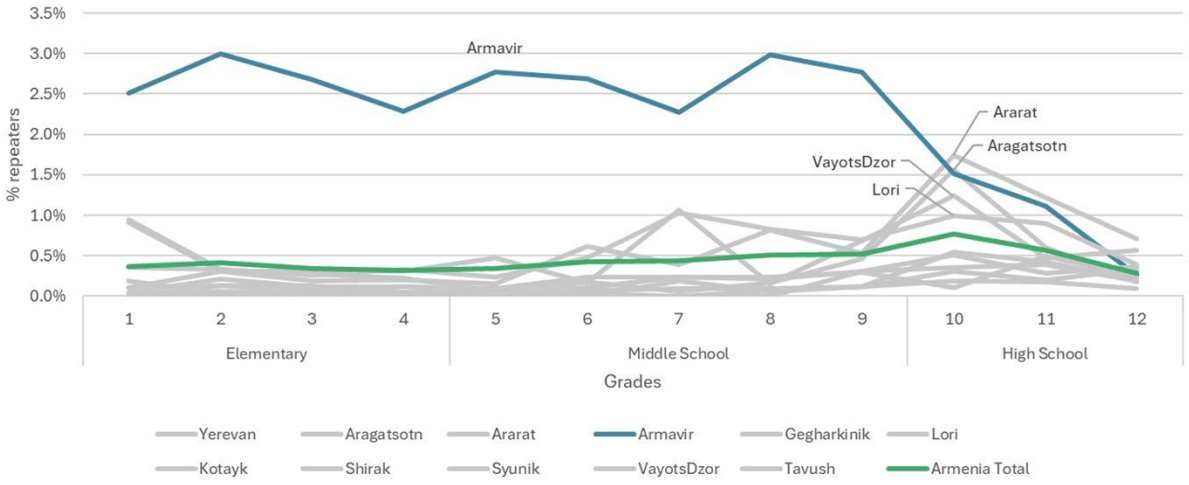
does not cover full costs. The State also provides per child funding for certain categories[37]. However, despite these well-intentioned subsidies, children from disadvantaged families continue to be excluded from the early education system.

- **Northern regions are most affected by the low preschool capacity.** The preschool supply varied among the different marzes, with the lowest capacity in Aragatsotn, Gegharkunik and Shirak. Only in Syunik, Vayots Dzor and Tavush was the preschool supply able to positively respond to the potential demand for children aged three to five. The lack of financial resources of the local municipalities may be an impediment to increasing enrolment.
- **The absence of a centralised registration and data management system complicates enrolment and planning, and hinders transparency**. As of the research completion date, there is no unified system for enrolling children and for collecting and maintaining data. While some regional administrations' websites have an inclusive list of all institutions, some have just the lists of institutions per community without providing detailed information, and some other regions do not have an online process at all[38]. This creates unequal processes and obstacles for enrolment in preschool.
- **Last, so-called border schools, e.g. in Syunik, Gegharkunik or Tavush, have specific needs**, including in terms of capacities, financial resources or even security, which require a differentiated approach to school support.
- **Repetition and drop-out in general education:** Regional disparities exist in general education in terms of student flows, with differences in terms repetition and most importantly in terms of access to education beyond Grade 9, as explained below.
- **Differences in repetition**: Although repetition is very low in Armenia (below 1% on average across all grades)[39], some regional disparities exist, with Armavir in particular showing in

[37] MoESCS clarified that the preschool institution is funded from the State budget per child for the following groups of students:
1) from 1 September 2022, children with special educational and developmental needs;
2) from 1 September 2023, children of a military parent, a parent who participated in military operations, children of a military serviceman who died while participating in military operations for the defence of the Republic of Armenia or while on combat duty on the line of contact with the enemy or while performing special tasks or official duties, or children of a military serviceman who was declared missing or deceased by a court order as a result of participating in military operations for the defence of the Republic of Armenia or while on combat duty on the line of contact with the enemy or while performing special tasks or official duties;
3) from 1 September 2026, children from families registered in the family social assessment system as socially insecure or whose monthly income per family member is less than 160 per cent of the threshold entitling them to receive a disability benefit, as established by the Law on State Benefits and the decision of the Government of the Republic of Armenia, and who are recognised as socially insecure in the family insecurity assessment procedure, and whose disability score is higher than the disability threshold of 28;
4) from 1 April 2025 to 2026 inclusive: children aged 0-2 (10 pilot groups in number).
[38] The single source of cumulative data on preschool education is the ARMSTAT.
[39] Figures on repetition relate to public schools only, as data on repeaters in non-public schools were not available in the EMIS data accessed by ETF.

2023/2024 percentages of repeaters between 2.3% and 3% from Grades 1 to 9[40]. In some regions (namely Ararat, Aragatsotn, Vayots Dzor and Lori), repetition increases in high school, especially in Grade 10, while it stays minimal in other regions. Although these levels of repetition remain low, such discrepancies (in levels at least until high school) and/or trends call for further investigation into the causes and implications of these higher repetition rates.

Figure 10: Percentage of repeaters in public school by grade and by region, 2023-2024



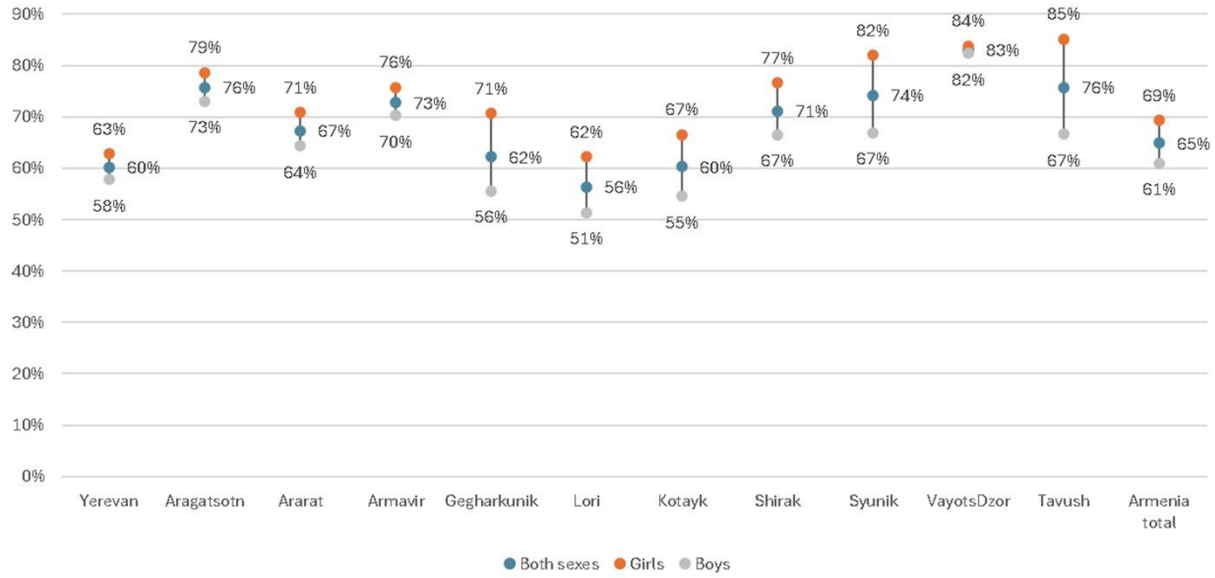
Source: EMIS

- **Gender and regional disparities in educational pathways after Grade 9 raise concerns about equal opportunities for youth.** In Armenia, approximately two out of three students (65%) continue their education in high school after obtaining their Grade 9 certificate, while most of the others enrol in VET programmes[41]. However, the proportion of Grade 9 graduates who continue in general education varies significantly across regions, ranging from just over half (56%) in Lori to five out of six (83%) in Vayots Dzor. Gender differences also exist: 69% of girls continue to high school, compared to only 61% of boys. These disparities vary widely, from a small gap of 2 percentage points in Vayots Dzor to a much larger 18 percentage points in Tavush. Although pathways exist between general education and VET, early educational choices are likely to have a lasting impact on young people's future opportunities. While causes and consequences of these differences vary from

[40] This situation appears to be specific to the 2023/2024 school year and was not seen in 2022/2023.
[41] Only 1% remain in Grade 9 and 2% drop out.

personal preferences, local labour market prospects, academic performance, or the availability (or lack) of local education and training programs. Graduate tracking surveys or school-to-work transition studies could help assess the extent to which these different pathways lead to significantly different employment outcomes in terms of job opportunities, income and job security.

Figure 11: Proportion of Grade 9 graduates who continue their education in high school by region and gender, 2023



Source: EMIS.

- **Regional disparities in higher education availability, although inevitable, create some inequities**. Nearly 9 out of 10 higher education students (88%) are concentrated in Yerevan. In regions like Armavir and Kotayk, the absence of public higher education institutions forces all first-cycle students to enrol in non-state institutions. Furthermore, Aragatsotn, Ararat, Tavush, and Vayots Dzor lack any higher education institutions, leaving local youth with no opportunities for higher education unless they attend universities in other regions. Although the territory's size would probably not justify higher education institutes to exist in all marzes, policymakers need to keep in mind that the current situation often entails practical and financial challenges, creating additional barriers to pursuing higher education. To date, type of financial or other resource support (cross-town travel reimbursement, free

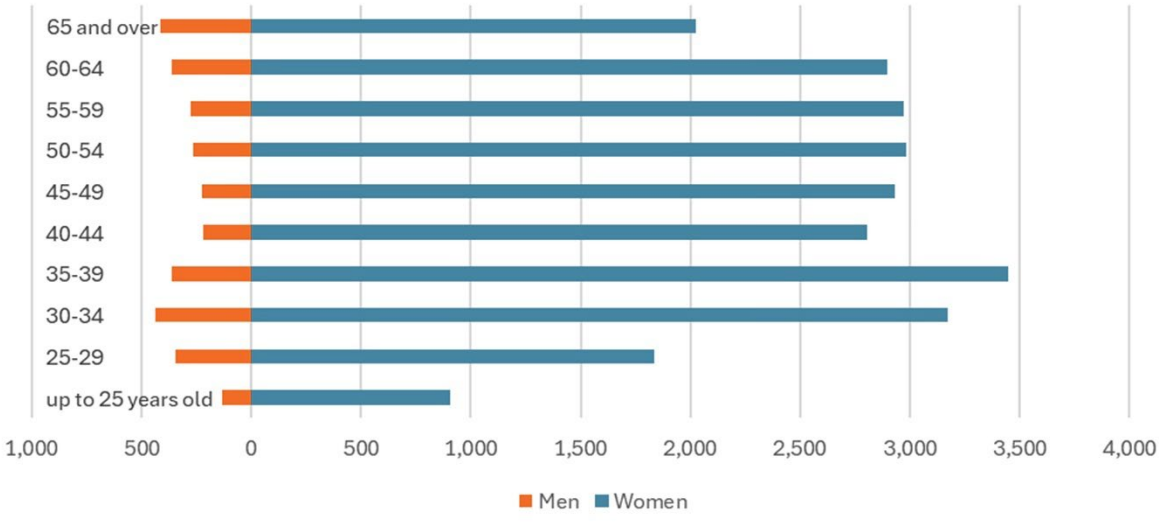
dormitories or low-cost housing options, etc.) accompanying scholarship opportunities are quite insufficient for students from disadvantaged background/regions.

1.2 Inequality in quality: the teaching and learning conditions

In terms of quality, the Armenian education system faces significant challenges related to the **characteristics of its teaching force and the overall learning environment**. These issues highlight important disparities in teaching force availability and quality, particularly affecting rural areas and contributing to the overall shortage of qualified teachers.

- **Teaching staff**: The **ageing of the current teaching force** is a critical issue in Armenia, as many teachers are nearing retirement without an adequate supply of young, qualified teachers to replace them. According to EMIS, 13% of teachers in 2023-2024 were of retirement age and an additional 4% were within two years of retirement. The teacher age pyramid shows a substantial drop in the number of teachers aged 25-29 and below 25, raising concerns about the renewal of the teaching force.

Figure 12: Number of teachers by age group and sex, 2023-2024

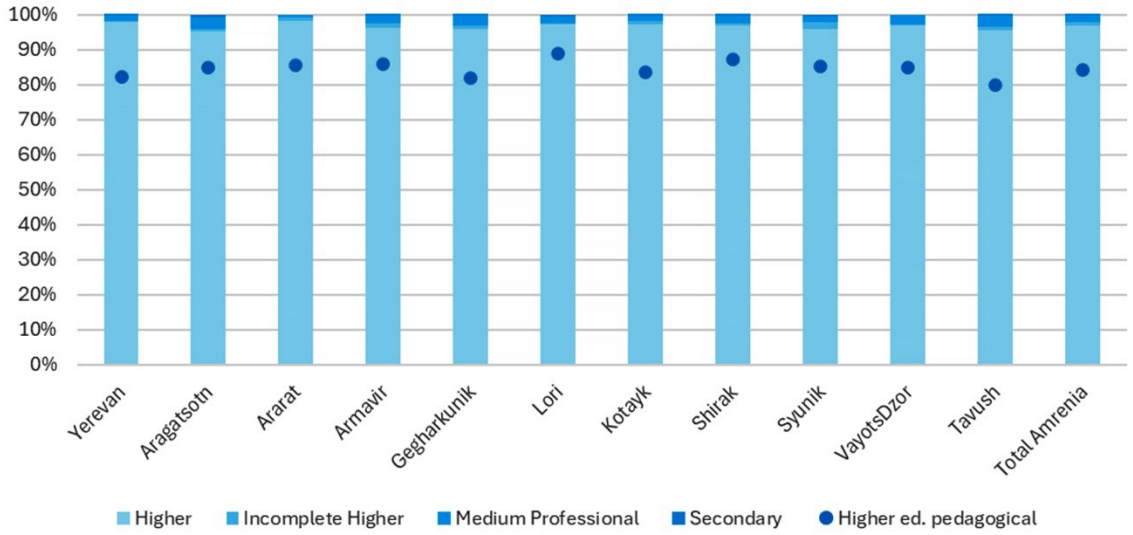


Source: EMIS

- **This shortage is particularly acute in STEM subjects, arts, foreign languages and physical education**, especially in rural areas. The fact that the **average teacher's salary is significantly lower than the national average** and than that of jobs with similar levels of

qualification[42] makes this career much less attractive compared to other professions. Also, teachers' salaries are partially proportionate to their number of teaching hours[43], and this depends on teaching needs, not on teachers' needs. Additionally, the regulation approved by the RA Government Decision No. 596 of 28 April 2022, requires teachers to have a higher education degree and pedagogical qualifications, further exacerbating the shortage risk, as many current teachers do not meet these criteria. According to EMIS, in 2023-2024, 93% of general education teachers held a higher education degree, and 84% had a pedagogical qualification, with relatively small regional disparities (from 95% in Aragatsotn to 98% in Yerevan and Ararat and from 80% in Tavush to 89% in Lori, respectively). The enforcement of strict conditions on pedagogical qualifications for teacher employment should be reflected against the shortages of teachers in certain regions, in particular in the border schools.

Figure 13: Distribution of general education teachers by academic and pedagogical qualification, by region, 2023-2024



Source: EMIS

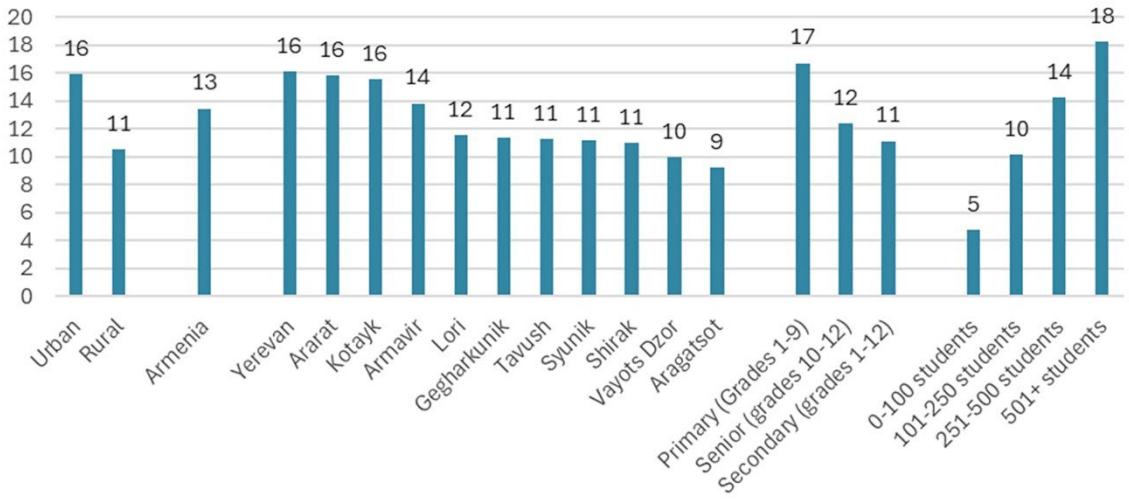
- In recent years, the **average pupil-to-teacher ratio in state general schools is steadily increasing: around 11.2 in 2023, while it was 9.2 in 2013** (ETF calculations on ARMSTAT

[42] Sources differ on the extent of the discrepancy.
[43] A teacher can receive full salary only if he/she teaches at least 50% of the official standard teaching hours. Under this threshold the salary is proportional to the teaching hours effectively provided.

data[44]). This ratio however varies greatly from one region to another: from 7.3 in Aragatsotn to 14.4 in Yerevan.

- In 2020, the pupil-to-teacher ratio was the highest in primary and lower secondary education, not only compared to the other education levels, but also compared to international benchmarks (UNICEF 2022b). Urban settlements of the marzes presented a ratio about 50% higher than in rural settlements: in academic year 2023/2024 this is 16.9 and 11.7 respectively[45]. In 2022/23 the 430 general schools with at most 100 students (most of them in rural areas) had a PTR as low as 4.7, while large schools of more than 500 students (most of which are located in urban areas) had on average 18.3 students per teacher.

Figure 14: Pupil-teacher ratio in general education by area, region and size of school, 2022-2023



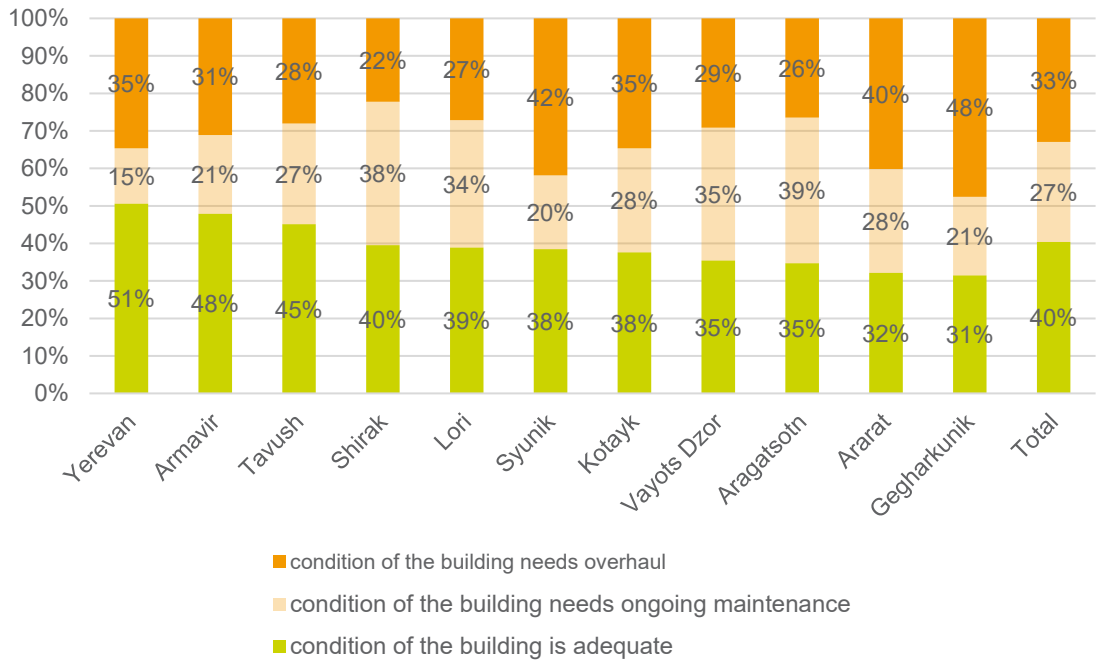
Source: EMIS and ETF's calculations
Note: in this graph only teachers having exclusively teaching hours are included in the calculation.

- **School resources and learning environment**: Armenian schools are characterised by the existence of **multiple shifts** and very often **unsatisfactory infrastructure conditions** due to **limited resources**. **In some regions, close to half of public general education schools are in need of overhaul.** 834 schools (or 60% of the total) have a state of

[44] This calculation of the PTR includes educators with both teaching hours and administrative and support duties (referred to as 'lecturers', e.g. in the following ARMSTAT document https://armstat.am/file/article/soc_sit_2023_en_2.pdf).
[45] ETF calculations on ARMSTAT data referring to general education schools state and non-state, taking into account only teachers with exclusively teaching duties.

buildings in need of renovation, either immediate or eventual. While on average in Armenia 40% of schools are deemed in good condition and 27% need major repairs, the situation is most favourable in Yerevan, where the majority of schools (51%) are in good condition, although more than a third (35%) only need significant repairs. However, the proportion of schools needing overhaul reaches 42% and 48% in Syunik and Gegharkunik respectively.

Figure 15: Percentage of schools by condition of the building, by region, 2023-2024



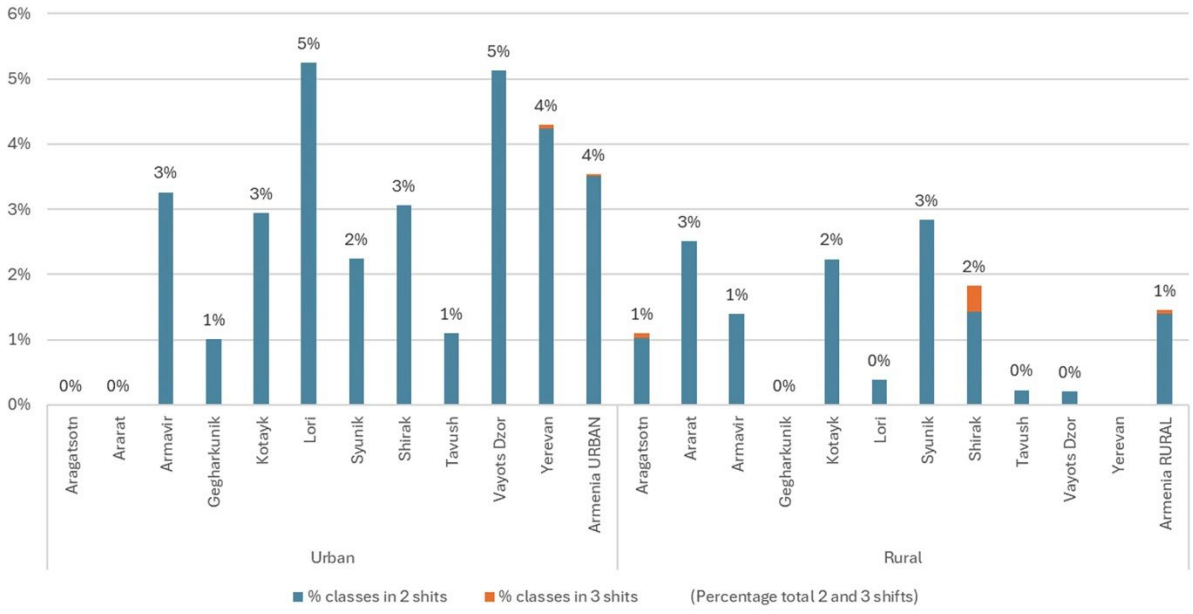
Source: EMIS and ETF's calculations. Regions are sorted in order of decreasing proportion of buildings in good condition.

- **Multiple-shift teaching, although affecting only 3% of students, is an indicator for some teacher shortages.** According to the National Centre for Educational Technologies (NCET), in the 2023/2024 academic year, out of 1 399 active general educational institutions (1 352 in public and 47 private schools), approximately 6% operated with two to three shifts, although not all classes in those schools seem to be subject to multiple shifts. On average, according to EMIS data, **4% of classes in urban area and 1% in rural areas are taught in multiple shifts (mostly in two shifts), affecting an estimated 3% of all students in general education (4% and 2% in urban and rural areas respectively)[46].**

[46] Estimation based on the average size of classes in each school with classes in multiple shifts.

Surprisingly, the schools resorting to multiple shifts are not always those which report the highest occupancy ratios. In some regions like Aragatsotn and Ararat, a greater proportion of more rural school operate in multiple schools than urban schools. Further investigation may be needed into why schools decide to operate in multiple shifts, to what extent this is also due to a lack of teachers, and the impact of this decision on the pedagogical process, including in relation to teaching time.

Figure 16: Percentage of general education classes taught in two or three shifts, by region and area, 2023-2024



Source: EMIS and ETF's calculations

- Additionally, **fewer than 100 schools (77 public schools and 21 private schools) offer an after-school care service.** There are only 13 boarding schools. The learning environment reveals substantial disparities, particularly between urban and rural areas. Rural schools often suffer from inadequate infrastructure, limited access to digital resources and a lack of qualified teaching staff.
- The overall capacity of schools in general education at the beginning of the 2023/2024 academic year was designed to serve 661 202 pupils, significantly higher than the 424 927 enrolled pupils reported by EMIS, highlighting the suboptimal and inefficient use of the school network. In 2022-2023, **17% of schools (242) in general education had fewer than 50 students and catered to 2% of the country's students** (with on average 7.6

teachers per schools, and fewer than 4 students per teacher). In contrast, 17% of schools had more than 500 students and catered to almost half (48%) of all students (with on average 45 teachers per school and a pupil-teacher ratio of 18.3) (EMIS). While many schools operate below capacity, resulting in underutilised resources, other schools operate on multiple shifts due to resource limitations. This inequality in the quality of education exacerbates the overall inefficiency and effectiveness of the school network.

Inequalities in learning

There are wide differences in the proportion of students who obtain the Grade 9 graduation certificate. Graduation ratios[47] range from 75% in Armavir to more than 92% in Lori[48]. In all regions but Yerevan, gender differences are seen in term of graduation ratios, in favour of girls in Syunik, Gegharkunik, Aragatsotn and Tavush and in favour of boys in Lori, Shirak, Ararat and Kotayk (GPIAs range from 0.9 to 1.13), although they compensate at the national level.

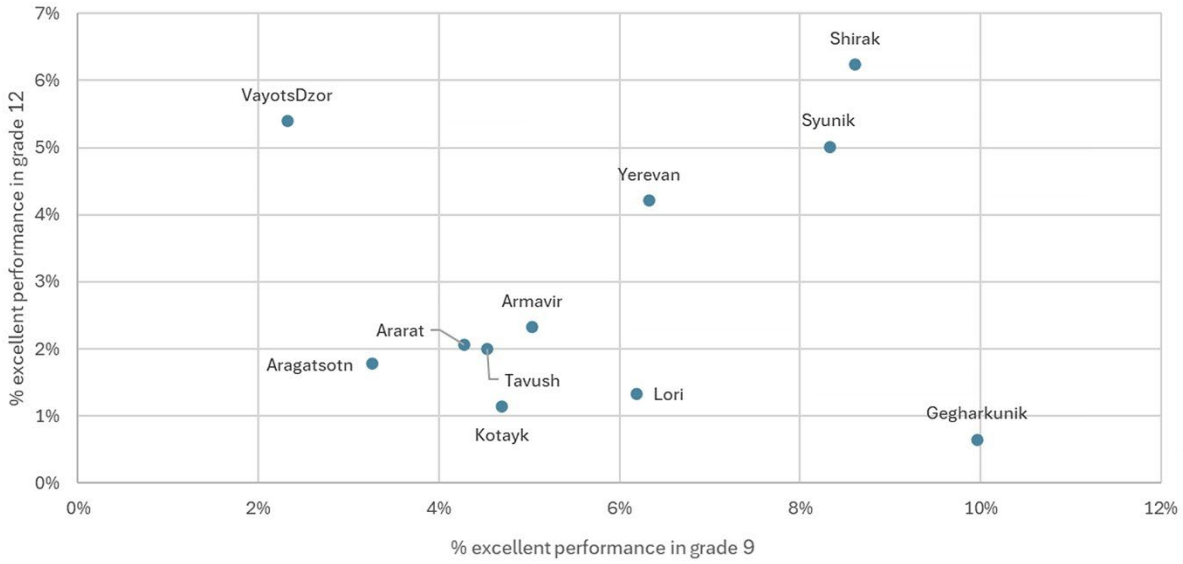
Figure 17: Grade 9 graduation ratios by sex and GPIA, by region, 2023-2024

Source: EMIS and ETF's calculations

[47] As the number of students taking the graduation examinations were not available in the data accessed by ETF, the graduation ratio is calculated as the number of graduates of Grade 9 divided by the enrolment in Grade 9 that year.
[48] The graduation ratio calculated for Vayots Dzor is above 100%, which may indicate a large number of external candidates or an issue with data, and in any case calls for further investigation.

Regarding the best performers, Shirak and Syunik are among the regions with the highest proportion of Grade 9 and Grade 12 graduates who achieved excellent results, while fewer students did so in Aragatsotn, Kotayk, Tavush and Ararat. In all regions, and at both levels although more universally in Grade 9, a much larger proportion of girls achieved excellent results than boys. Surprisingly, Gegharkunik had the largest proportion of Grade 9 graduates with excellent results but the lowest proportion in Grade 12; in Vayots Dzor it was the opposite – this finding calls for further investigation as to what may cause these differences.

Figure 18: Percentage of graduates with excellent performance in Grades 9 and 12 by region, 2023-2024



Source: EMIS and ETF's calculations

2. Financing analysis

2.1 Resource mobilisation

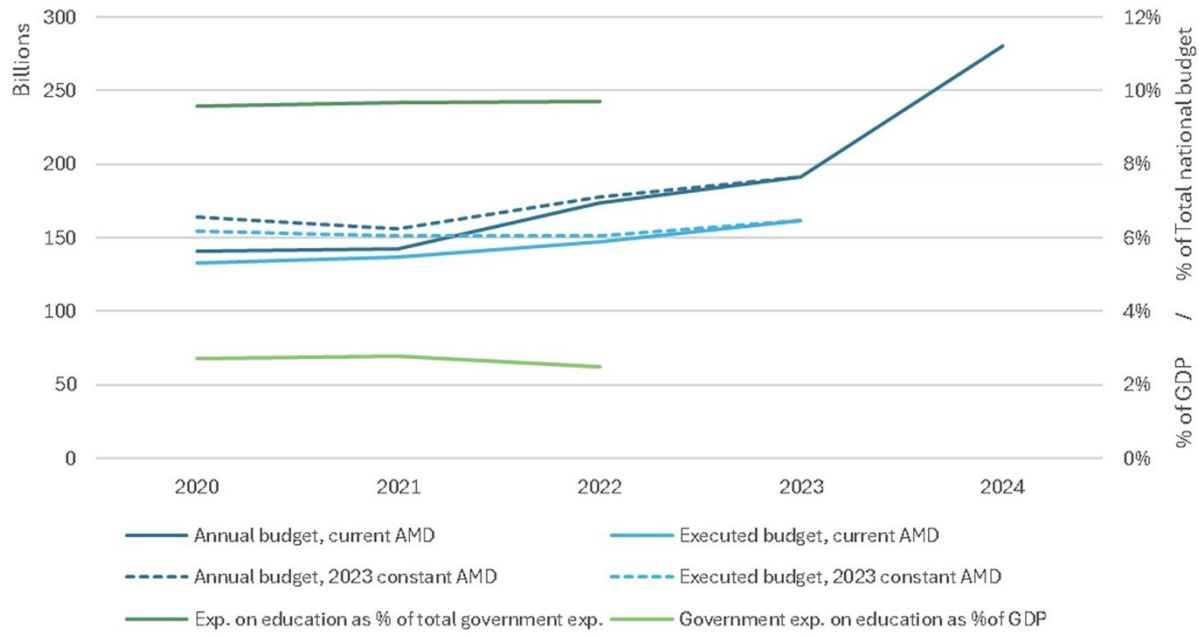
State budget and public investment in education: a low level explained by the context

- **Despite significant recent increases in the education budget, education expenditure remains low compared to international benchmarks.** Over the last five years (2020-2024), the education sector state budget increased by 98.9% in nominal terms, from around AMD 141 billion in 2020 to AMD 282 billion in 2024[49]. In real terms, the increase was more

[49] Ministry of Finance, State budget data.

modest – 17% increase between 2020 and 2023, although a large increase in education sector was voted for 2024 (+ 47% in nominal terms), with minimal inflation projected for the year[50], which means that most of this increase will be seen in real terms. However, despite this growth, the share of education spending is well below the usual internationally recognised benchmarks of 15-20% of the State budget and 4-6% of GDP. Indeed, in Armenia, the share of the State education budget in GDP fluctuated in the range from 2% to 2.3% (2.3% in 2023), while it constituted on average 7.7% of the State budget (8.7% in 2024). These indicators are among the lowest in comparison with Eastern Partnership countries and other comparable nations[51].

Figure 19: Voted and executed education budget and public education spending as percentage of total government expenditure and as percentage of GDP, 2020-2024



Source: Ministry of Finance for State budget data, UIS (Sept. 2024 data release) for public education spending as percentage of total government expenditure and World Bank for deflators.

- **Recent education budgets have systematically been revised downwards, yet spending remains relatively low in some programmes.** In-year-budget revisions reached - 13% in 2022, and remained relatively high in 2023, with 10% reduction[52], despite an

[50] In its October 2024 World Economic Outlook, the IMF projects 0.2% inflation in 2024 (WEO database, accessed on 5 Dec. 2024).
[51] Benchmark countries: Czechia, Estonia, Georgia, Latvia, Lithuania, Moldova, Romania, Slovakia.
[52] No data was available for the FY2024 revision at the date of writing this report.

overall upward revision of the total government budget of 5% and 1% in 2022 and 2023 respectively. Despite these revisions, execution rates of the State education budget, which reached 98% and 97% in 2021 and 2022, decreased to 94% in 2023. In terms of programmes, the introduction of ICTs, the Safe Schools programme and Ensuring Education Quality had the lowest levels of budget execution (74%, 76% and 81% respectively, cf. Figure 31 in the Annex), which calls for a deeper look into the MoESCS's capacity to implement large capital infrastructure programmes and put in place the necessary grants (cf. Figure 32 in the Annex for the distribution of the programmes' budget by economic classification).

Figure 20: Approved and revised State and State education budgets, and execution rates, 2020-2024

	State Budget			State Education Budget			State Education Budget Execution
	Approved	Revised	Variation	Approved	Revised	Variation	
2020	1 856	1 989	7%	141	139	- 2%	95.7%
2021	1 851	2 049	11%	142	140	- 2%	98.0%
2022	2 184	2 288	5%	174	152	- 13%	97.2%
2023	2 591	2 625	1%	191	172	- 10%	93.9%
2024	3 207	3 203	0%	280	279	0%	49.4%*

*Source: Ministry of Finance. Note: Execution rates are calculated based on the revised budgets. *The 2024 execution rate is based on the first nine months of the year.*

- Given the socio-economic, demographic and geo-political challenges in the country, in particular the repatriation of Armenians from Nagorno-Karabakh following the war with Azerbaijan, as well as the priorities set forth in the 2021-2026 Government Programme, **close to half of the State budget is allocated to social protection** (including programmes targeted at children and vulnerable families), **defence and national security: 22.8% and 23.5% respectively in 2024**[53]. Both budgets are expected to pass a quarter of the budget each in 2025 (26.2%, according to the draft 2025 State budget and 2025-2027

[53] Source: MTEF 2024-2026; 2024 State budget.

MTEF). This situation impedes the likelihood of education spending increasing in the short term – at least on domestic resources.

Public policy financial sustainability

- The Education Development Programme 2030 was approved in November 2022 as a law, setting the priority directions and expected results of the sector development.
- While the programme was approved in 2022, in fact it formalised reforms that were already in progress. The MTEF 2020-2022 followed this policy framework, with measures and programmes addressing some of the priorities and results. However, the action plan of the Education Development Programme 2030 includes measures requiring additional costs to the routine budget financing of the education sector.
- The action plan was costed with the support of UNICEF. Total reform costs are around 1 835 bn AMD (EUR 4.3 bn) to be implemented between 2023 and 2030[54], or about 230 bn AMD per year (EUR 539 m) on average. The two most expensive activities are: (1) the renovation, equipment and maintenance of schools and preschools (488 bn AMD – EUR 1.1 bn); and (2) the construction of an academic city[55] (440 bn AMD – EUR 802 m). The costing methodology was based on estimated unit costs; however, it was not based on the projected fiscal space and medium-term budget constraints. Therefore, the costs are more of informative nature rather than a basis for developing MTEFs or annual budgets.
- The MoESCS prepared a report on the implementation of the programme in 2023, presenting the progress on every action plan activity's performance. However, the document does not include financial reporting, which would allow in-depth analysis of public spending on the programme implementation as a whole.

Financial burden on families

- **Informal funding of education by parents** is a problem – of variable magnitude according to the education level – per se and in terms of inequalities[56].

[54] Source: MoESCS
[55] The **Academic City project**, approved in October 2023 by the Government of Armenia as part of its 2030 development plan, will be built in Yerevan's 17th district on about 700 hectares (primeminister.am, acarmenia.am). It aims to unite up to 16 universities – 8 state, and 8 private or international – across four clusters (technological, artistic, educational and military) and to accommodate around 44 000 students. The plan includes research centres, student housing, cultural venues, sports facilities, a concert hall and a 35 000-seat national stadium. The programme outlines a phased timeline: design by 2025, construction 2025-2029 and full operation by 2030. It raises debate among higher education stakeholders, namely because of the uncertain proportionality between cost and added value (Source: higher education focus group).
[56] Private tutoring is a widespread phenomenon at high school level. Wealthy families, in contrast with socially vulnerable families, are able to ensure quality private tutoring for their children which enables the latter to be better prepared for university admissions.

- In 2021 and 2022 education expenses (per capita) comprised on average 2% (EUR 2.2) of the nominal household monthly expenditure. In urban areas this indictor was 2-2.1% and in rural areas 1.9-1.8%[57].
- According to the UNICEF/UNDP 2024 Report, in 2018-2021 the largest share (44-54%) in the structure of households' education expenses was allocated to higher education[58], followed by general education and preschool education. The key expenditure categories in the structure of household education expenses were: tuition fees and other payment – 39.5%; uniform and other clothing items – 27.8%; private tutoring costs – 10.4%.
- In public higher educational institutions, the average annual tuition fees are in the range from EUR 1 100 to EUR 1 600, with estimated average monthly fees of around EUR 135[59], which seems to be high compared to neighbouring countries, and there are no grids or criteria for framing the fees that each university is allowed to require depending on the university level. In public VET institutions, the average annual tuition fees are in the range from EUR 400 to EUR 600, with average monthly fees of around EUR 50.
- In VET, the existence of paid education at preliminary, and particularly middle-level, VET institutions poses accessibility challenges for economically disadvantaged groups, although free access may be granted to them. For continuing vocational education and training, access for the unemployed, disabled or other vulnerable populations, mainly in the framework of MLSA active labour market policies, is only guaranteed within the constraints of the funding available from the state budget[60].

These conditions strain economically under-privileged families, adding to their financial burden towards education.

[57] Source: https://armstat.am/file/article/poverty_2023_a_3.pdf.
[58] The majority of universities are located in Yerevan, and students from other regions have financial difficulties related to living in the capital (accommodation, transportation, food).
[59] Estimated for 10 months of academic year.
[60] Key policy developments in education, training and employment – Armenia 2023, ETF.

Examples of annual tuition fees (Source: websites of respective institutions)

For bachelor's degree in higher educational institutions:

- Yerevan State University: EUR 1 100 – EUR 1 800
- Yerevan State Engineering University: EUR 1 300 – EUR 1 900
- Yerevan State Pedagogical University: EUR 900 – EUR 1 300

In VET institutions:

- Yerevan Medical College: EUR 840
- Gyumri Medical College (Shirak Marz): EUR 500 – EUR 600
- Gavar Agricultural College (Gegharkunik Marz): EUR 250 – EUR 350

The Government undertakes measures to alleviate the financial burden of families, as well as to provide incentives to students for education, in particular at higher education and VET levels (but also, as mentioned earlier, for vulnerable children's access to preschool). This support can take three main forms: i) full coverage of tuition fees – education is totally free of charge; ii) partial coverage of tuition fees[61]; or iii) payment of stipends.

Eligibility criteria for free-of-charge education, partial coverage of costs and for stipends are set forth by the Government and include: students with high education scores; students from vulnerable families (registered in the family benefit system for social protection); students with disabilities; students from families with members that got disability or died in the military conflict; and students enrolled in courses prioritised by the Government.

In the 2023/2024 (FY2023) academic year, 83.6% of the budget for higher education was allocated to cover tuition fees of 18% of students. In other terms, around EUR 26 million was allocated for free-of-charge education of 11 990 students at both the first and second level of higher education.

In the same year, 68.8% of the budget for vocational education was allocated to cover tuition fees of 58% of students, i.e. around EUR 23 million for free-of-charge education of 18 300 students[62]. This is the financial translation of the positive revision of the scholarship of the VET sector[63].

[61] No statistical data is available about the number of students benefiting from discount of tuition fees.
[62] Estimations are made based on ArmStat data (https://armstat.am/file/article/socsit_2023_6.pdf) and 2023 State budget.
[63] In 2023, the scholarship policy of the VET sector was revised. To attract young people to the specialties considered a priority for the economy such as agriculture, industry and construction, as of the 2023/2024 academic year, the scholarship

Proportion of students getting free education and stipends, VET and higher education

Education level	Free-of-charge education		Stipends to students	
	Students in free-of-charge education, % of total number of students	Budget for free-of-charge education relative to the programme budget, %	Students receiving stipends, % of total number of students	Budget for stipends relative to the programme budget, %
VET	58%	68.8%	24.4%	8.6%
Higher education	18%	83.6%	11.4%	8.7%

2.2 Resource allocation

Budget allocation across the different education levels

The education budget includes 12 programmes in 2024:

- vocational education and training
- higher and post-graduate education
- general education
- extracurricular education
- safe school
- ensuring education quality
- introduction of universal inclusive education
- cooperation with diaspora
- introduction of information and communication technologies
- preschool education
- seismic safety of schools (ADB support)

has increased to AMD 50 000 per month against the present 4 650 AMD in preliminary and 4 750 AMD in middle VET, promoting increased enrolment in these majors.

The scholarship is provided in the following amounts:

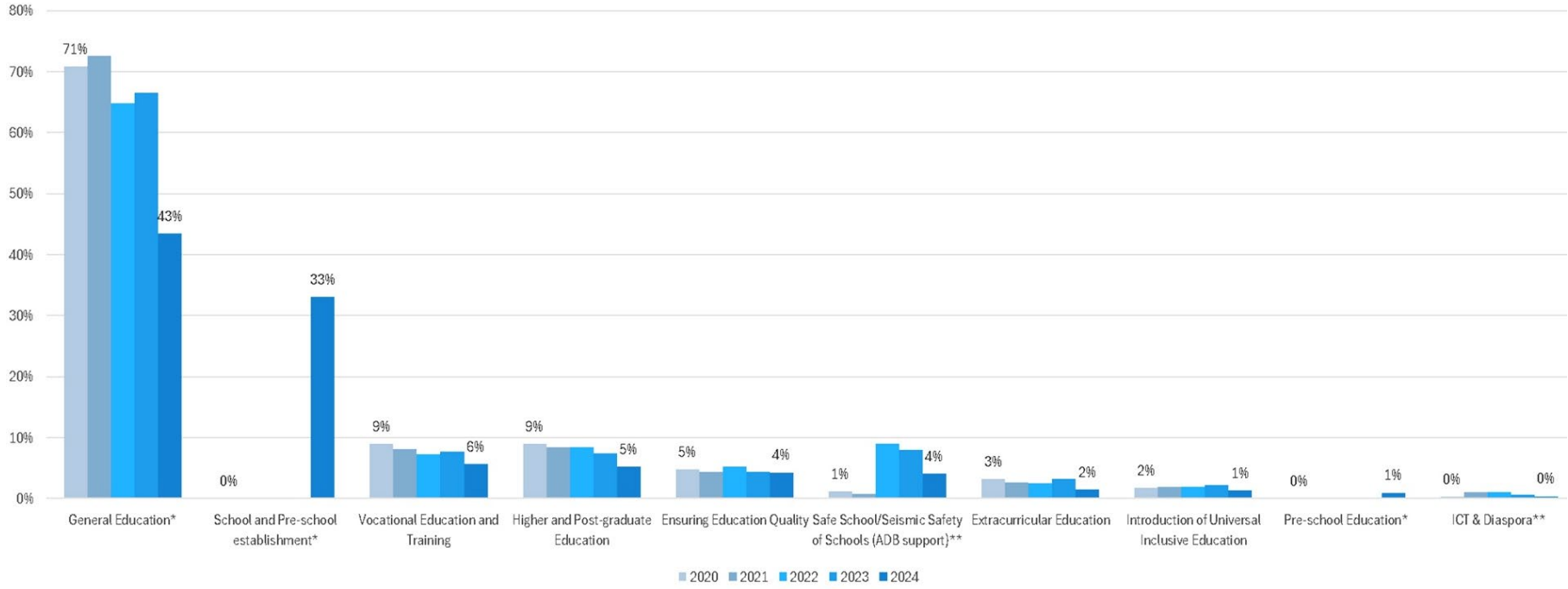
- Basic education students who are admitted to study the state-priority programmes or other fields of study approved by the Government of the Republic of Armenia every year are provided with a scholarship in the amount of AMD 50 000 in the first year, and in the following years, based on the results of the previous academic year. Students receive the amount of AMD 50 000 only in cases of having 'excellent' and/or 'good' grades, and AMD 40 000 in cases which they received less than 75 per cent of having 'excellent' and/or 'good' grades.
- A scholarship in the amount of AMD 25 000 for students of the social group defined by the laws 'On Social Protection of Children Left Without Parental Care' or 'On the Rights of Persons with Disabilities', as well as students of educational institutions in borderline and highland settlements, in case of excellent academic performance.

- school and preschool establishment

In terms of absolute amounts, the budget of programmes for education levels increased over the five years: VET by 25.5%; Higher and Post Graduate Education – 16%; General Education – 22.1%.

The largest public spending was allocated to the general education programme, on average constituting 63% of the education budget in the last five years. In 2024, in line with the Education Development Programme 2030, a new programme 'Establishment, construction and improvement of general schools and preschool institutions' was introduced in the education budget, which is a capital investment programme and absorbed 33% of the total education budget.

Figure 21: Distribution of national education budget (approved budget) by programme, 2020-2024

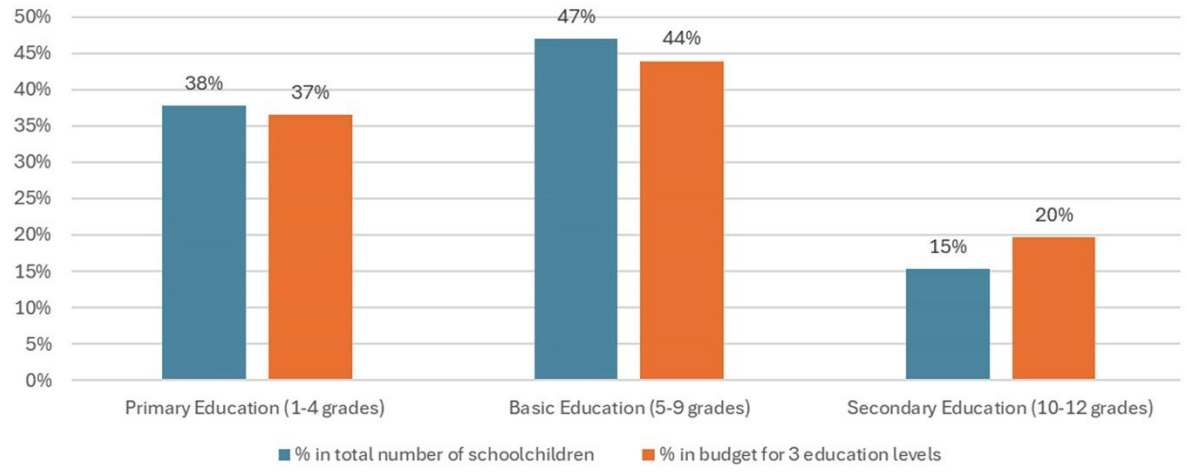


*Source: Ministry of Finance and ETF's calculations. Notes: * Prior to 2024, Preschool Education and School and Preschool establishment programmes were included in General Education; the total for 2024 amount to 78% of the overall education budget. ** Safe School, Seismic Safety of Schools (ADB support), Introduction of Information and Communication Technologies and Cooperation with Diaspora are separate programmes grouped here for convenience.*

The General Education programme covers: (i) primary education; (ii) basic education; and (iii) secondary education, with each of these levels including schools of general, special and specialised education. The programme includes also 'auxiliary measures', which are targeted to support all levels under general education. In the 2023/2024 academic year, (FY2023) 83% of the General Education programme was allocated to the three educational levels mentioned above and 16.9% to auxiliary measures, which include more than 20 measures (sub-programmes), including provision of textbooks, various additional payments/incentives to teachers, methodological support, etc.

The distribution of budget to the three levels of general education is remarkably consistent with the relative weight of these education levels in terms of students, thanks to the school funding formula (Figure 22).

Figure 22: Distribution of general education budget and number of students by level of education, 2024



Source: EMIS, Ministry of Finance and ETF's calculation.

The budget programme Ensuring Education Quality includes measures to support all education levels. These are mainly services of specialised institutions (e.g. State Committee for Education and Science), as well as capital investments from the World Bank loan.

Budget allocation by economic items: a priority to capital expenditure

In 2020 and 2021, the share of capital expenditure in the total education budget was 3.74% and 3.62%, respectively. However, it increased significantly in the following years on average up to

16.4% in 2022-2023, **reaching 40.7% (around EUR 260 m)** in 2024. The latter is mostly related to the introduction of the new programme 1236: *Establishment of Schools and Preschool Institutions*, which aims to have 500 preschools and 300 general education schools operational by the end of the programme (built, renovated or upgraded).

The recurrent expenditure budget consists of the classifications below.

- Subsidies: compensations of costs incurred by organisations in implementing government assignments with defined prices. Subsidies are allocated to finance the operation and activities of general education institutions at all levels;
- Grants: allocated mainly through the MoESCS to organisations and agencies that perform their statutory functions in the education sector, supporting or providing for the implementation of education programmes;
- Social allowance and stipends: (i) stipends to students; and (ii) allowance to students, which (a) in essence includes the salaries of teachers and the maintenance costs of institutions under VET and Higher and Post-graduate Education Programmes. This component is estimated by the number of classes/teacher workload ratio; and (b) allowances to teachers and students under the other programmes (e.g. compensation for transport costs, attestation of teachers, etc.);
- Procurement of services.

Given the economic classifications of the State budget, it is not possible to identify and differentiate salaries, maintenance costs and other expenses in educational institutions.

The key observation from the budget analysis by economic classification is that budget resources are allocated to the General Education programme mainly through subsidies, while VET and higher education institutions are financed through social allowances and stipends.

In fiscal year 2024, capital expenditure constituted 40.65% and recurrent expenditure 59.35% of the education budget.

Allocation of resources to schools

Since academic year 2023/2024, a new funding formula for general education institutions takes the number of classes in each school as the main parameter for calculating the funding, replacing the number of students; but impact remains to be assessed. According to the per-class funding formula (Government Decree No. 1481 of 22 September 2022), the budget

of a schools is estimated based on 1/ the average number of classes; 2/ average monthly teacher workload per one class; 3/ minimum wage defined for one workload norm of teachers; 4/ additional remuneration for teaching, administrative and management staff; 5/ food and textbook costs; and other costs. The formula[64] has been applied in 1 120 public schools (out of 1 352).

However, in order to secure sufficient funding for 'small-size' schools, the aforementioned Government Decree (Clause 5) specifies that the funding by per-class formula shall not be applied to the schools identified in the 'Ensuring accessibility of quality education' programme for restructuration or reorganisation. This concerns 232 schools all over the country, i.e. those with fewer than 73 students in primary education level, fewer than 163 students in basic education (middle school) level and fewer than 208 students in secondary education (high school) level. (MoESCS Order No. 1790-A/2 of 11 September 2023).

To date, no thorough analysis has been made to assess the impact of this change.

3. Governance analysis

3.1 Institutional setting, responsibilities and accountability

The Armenian education system, managed by a distinct ministry alongside various executive agencies, local authorities, and decentralised services of the MoESCS, faces issues with blurred delineation of responsibilities, weak coordination, and limited cooperation. The section hereafter focuses on the central level, while the next will highlight the issues related to the regional, local (community) and school levels.

Generally, there are no systematic mechanisms in place for regularly assessing the performance of the engaged institutions by the MoESCS, whether it is at central, regional or local level; no regular survey among schools is conducted or outsourced to research companies for identifying the strengths and weaknesses within the operations of institutions, bodies or agencies related to the ministry.

[64] All norms and coefficients to be applied in the formula are specified in the Order No: 79 of the Minister of ESCS from 7 December 2022, with detailed rules to define workload, salaries, etc. The number of classes and the number of students in classes are formed based on norms approved by the Order No: 12 of the Minister of Health from 28 March 2017, which defines detailed standards for every aspect related to hygiene, sanitation, physical measurements of classrooms, etc.

The complex institutional landscape at central level: the MoESCS and executive agencies (or authorised bodies)

Drawing on a comprehensive mapping of the institutional setting at central level, presented in the textbox hereafter, several issues can be identified.

Until 2019, the Ministry of Education and Science (MES) was the authorised body responsible for the development and implementation of the education and science policy in the Republic of Armenia. In 2019, this ministry, absorbing two other ministries, i.e. the Ministry of Culture and the Ministry of Sports and Youth Affairs, was reorganised into the Ministry of Education, Science, Culture and Sports (MoESCS)[65].

Based on the document entitled 'Positions List' available at the ministry's website[66], currently the ministry has 333 positions. The Minister has six Deputies: one of the Deputies oversees general education, as well as preliminary (craftsmanship) and middle vocational education and training. Deputy Ministers are appointed by the Prime Minister. The position of Deputy Minister was previously considered discretionary, but according to the Law on Public Service adopted in 2018, it became a political position. The unified MoESCS has 12 principal ('technical') structural units[67] against 18 principal structural units which previously the three separate ministries had together[68]. There are also nine supporting structural units[69] , which perform staff management, legal, accounting, and other administrative functions and are directly accountable to the Secretary General of the Ministry, who is a civil servant.

In 2020, the Department of Military-Sportive and Extracurricular Education was merged to the **Department of General Education** and the latter, with its 19 staff, became responsible also for extracurricular education. Currently, it has three divisions: (a) General and Extracurricular Education Programme Development and Implementation, (b) General and Extracurricular Education Policy Development and Analysis, (c) Coordination of General and Extracurricular Education Institutions. The first division was formed through the merger of the Division of Preschool and Secondary Education Policy Development and Analysis, and the Division of Preschool and Secondary Education. The other two divisions were newly formed.

Other education-related principal units are **Department of Preliminary (Craftsmanship) and Middle Vocational Education**, including the Division of Vocational Education and Training and the Division of Vocational Education and Training Policy Development Strategy; and the **Division of Supplementary and Continuing Education**.

[65] Law on Amendments and Additions to the Law on the Structure and Operation of the Government, 2019.
[66] The structure of the ministry is reflected on their website under the section 'Ministerial Structure' (https://escs.am/am/static/structura), as well as in the document entitled 'List of Positions' available at this address: https://escs.am/files/files/2019-07-02/78e4300cdf53385938a0ccfa85da364c.pdf. This 333 does not include the staff of the Language Committee, the Unit of Language Oversight and the Department of Administrative Violations.
[67] According to the MoESCS Statute approved in 2019 (https://www.arlis.am/DocumentView.aspx?DocID=163434), there should be 11 principal ('technical') structural units, however, on the official website of the ministry (https://escs.am/en/static/structura), they are 12.
[68] All principal structural units have a statute, which defines the goals, tasks, functions and structure of the given unit: https://escs.am/am/static/charter.
[69] Again, according to the MoESCS Statute, there should be 12 support units, but on the official website of the ministry, 9 are presented.

The **Department for Strategic Planning and Monitoring**[70] is an important part of the education operations. The department has nine employees including the head of department, four of which work in the Unit for Strategic Planning and the other four in the Unit for Monitoring. Although according to the formal job descriptions, only one employee from each unit is responsible for education[71], due to a relatively small number of employees in the department against the wide range of sectors it oversees, they both, upon necessity perform also tasks related to the other fields, and vice versa, the other staff members are frequently involved in education-related activities. According to the Statute of the Department, the goals and objectives of the Department inter alia, are:

* development of the country's state policy in the areas of education, sports, culture and youth affairs;

* design and monitoring of mid-term and long-term educational, sports, cultural and youth affairs state programmes; and

* implementation of target programmes based on the education development state programme.

The **Licensing Department** is one of the principal structural units of the MoESCS in the field of education. Two divisions are functioning within the Department: (a) Licensing and (b) Monitoring and Analysis. The agency is guided by the Law on Licensing and the Government Decree on Approval of Licensing Procedures for Implementation of Educational Programmes (Government, 2009).

There are also a number of structures supporting the ministry in the governance of the areas under their authority:

* **Higher Education and Science Committee:** The Committee was established in 2023 under the jurisdiction of the MoESCS, and ensures implementation of the state policy aimed at the cooperation and integration of the two sectors. It is responsible for the activities previously related to three former structures, i.e. the Committee of Science, the RA Higher Qualification Committee and the MoESCS Department of Higher and Post-graduate Professional Education.

* **Centre for Education Projects (CEP):** The unit coordinates the implementation of the World Bank loan programmes.

* **Assessment and Testing Centre (ATC):** A State non-commercial organisation that conducts state centralised final exams, basic school final exams, national reviews and analysis of external evaluations of education institutions. It coordinates Armenia's participation in international assessment studies and develops exam tests for voluntary attestation of teachers[72] .

* **National Centre for Education Development and Innovation (NCEDI):** A foundation, the legal successor of the former National Institute for Education (NIE – had about 400 staff with branches in the regions) responsible for the organisation and monitoring of training processes, monitoring of school standards and development of the educational content. It also includes the National Centre

[70] MoESCS The Department of Development Programmes and Monitoring was reorganised and renamed into Department for Strategic Planning and Monitoring in 2023. The statute of the latter has been approved but not yet published on the ministry's website.
[71] http://hesc.am/am/e05fcf734e3a707251301869
[72] The statute of the ATC states the following functions: developing assessment criteria for evaluating knowledge, capabilities and skills, as well as providing mechanisms and tools for their implementation; providing materials and tasks for the assessment of students' knowledge, skills and capabilities; providing methodological assistance to the teachers to ensure efficient implementation of new assessment forms in the educational process; conducting audits on national and international levels to assess the knowledge, skills and capabilities of students (ATC Statute, 2004. https://www.arlis.am/documentview.aspx?docid=54950).

for Vocational Education and Training Development (NCVETD), which deals with the content issues of vocational education.

* **National Centre of Educational Technologies (NCET):** A State non-commercial organisation that maintains administrative registers of the education sector (EMIS) and implements e-governance, ICT content development and distance learning programmes.

* **National Centre for Professional Education Quality Assurance (ANQA):** Established in 2008, ANQA has the mandate to implement and oversee quality assurance processes in preliminary, vocational and higher education.

* **Textbook and ICT Revolving Fund (TICTRF):** The fund coordinates the organisation of textbook competitions, as well as textbook publication and distribution.

* **Republican Pedagogical-Psychological Centre (RPPC)** with its 24 Regional Pedagogical Psychological Support Centres or outsourced service bases: a state non-commercial organisation responsible for the assessment of students' needs and adaptation of schools/laboratories infrastructure for children with special needs.

* **Education Inspection Body (EIB):** This body is accountable to the Government, performs state supervision for education legislation compliance, and contributes to quality education by performing preventive measures and consultancy activities.

There is also a **Centre for Professional Orientation and Development of Competences** acting under jurisdiction of the Ministry of Labour and Social Affairs (MLSA). The Centre cooperates closely with the entire education system and has a mission to institutionalise and develop the system for lifelong provision of professional orientation (vocational guidance) and career services to the population

By design, the MoESCS is mainly in charge of the educational policy development, while the various functions to be performed in the management of an education system are entrusted to specialised agencies (also called authorised bodies) under its authority. In the last two decades, the number of these agencies has significantly increased. At both levels, MoESCS and agencies, various issues are to be considered.

Inter-ministerial coordination, not to mention collaboration, in the field of education is rather weak.

Regarding the MoESCS level, the various segments of education require coordinated policy development and management efforts with other ministries in order to ensure an integrated public service to the families, but this synergy has been largely insufficient up to now, namely by **lack of interministerial coordination formal frameworks, at national and sub-national levels**. For instance, preschool education services are expected to be administered by joint efforts of four ministries: the MoESCS is in charge of policy development, provides methodical aspects and trainings for pedagogical staff, and monitors the quality of preschool education implementation

through the Licensing Department (the Education Inspection Body (EIB) being involved in the external monitoring); the Ministry of Territorial Administration and Infrastructure (MTAI) allocates funds from the state budget to the communities that receive government subsidies to fund their preschool institutions. The Ministry of Health has its own standards for sanitary (WASH) conditions in education facilities and provides services for the well-being of children attending these preschool institutions; the MLSA is responsible for introducing measures aimed at reducing poverty and creating favourable social conditions for the development of children[73]. But these ministries do not benefit from a coordination framework to fulfil their missions in a consistent way. Similarly, the enrolment and retention of vulnerable children or children with special education needs in general education would require formal channels between MoESCS and MLSA for articulated school-level assistance, social services and financial aids, as well as efficient case management.

Regarding specifically the executive agencies, or so-called authorised bodies, various issues and challenges emerge as well.

First, many agencies are not granted the human, financial or organisational resources needed to fulfil their functions.

For instance, the **National Centre for Education Development and Innovation (NCEDI)** is responsible for teacher training, replacing since 2019 NIE in this role. But the newly created NCEDI has a significantly smaller staff (in the first quarter of 2024 even further reduced to 72 against 400 of the former NIE), **no branches in the regions** and does not conduct extensive teacher trainings. The statute of the NCEDI also includes a provision on supporting the Bologna process in the field of higher education. However, the NCEDI does not have organisational competencies and specialised units in higher education[74].

In addition, with the liberalisation of the training of teachers and principals, now outsourced to third parties selected upon an open competition, the MoESCS and NCEDI perform supervisory, monitoring and evaluation functions. This casts doubt on how effectively the NCEDI can guarantee quality and relevance, as well as contribute to the creation, dissemination and institutionalisation of innovation, particularly given that private actors are unlikely to commit the necessary effort and

[73] Integrity of preschool education in Armenia: an INTES assessment. Milovanovitch & Bloem, 2020.
[74] NCEDI Statute, 2021. https://kznakhimnadram.blogspot.com/p/blog-page_89.html.

financial resources to achieve these goals. Moreover, NCEDI lacks both the budget and the human resources required to fulfil such a role.

A separate question is whether it's rational and efficient to establish so many agencies in such a small country with limited resources. It causes high coordination costs.

Second, some agencies lack the legal mandate that would enable them to roll out an integrated function, or at least to articulate it coherently with relevant institutional partners.

For instance, the **EIB** primarily focuses on audit and compliance control, whereas its school visits (limited in numbers[75], by lack of human and transportation resources) could be optimised to also identify capacity-building needs for teachers and school heads, thereby informing NCEDI priorities (or the schools' development plans, for instance).

Finally, the functions of certain agencies intersect without clear institutional complementarity nor coordination mechanisms.

For instance, ATC and NCEDI[76] are both involved in **assessment-related issues**. NCEDI has a department for assessment design and development, and is expected, by statute, to support the coordination of **national and international reviews of student progress assessment** and develop various assessment tools for schools, as seems to be ATC by statute, too[77]. While the results of these activities are logically expected to feed NCET analyses of the functioning of the education system, the channels for information sharing have not been clearly defined.

[75] In VET for example, throughout 2021-2023, EIB inspected 51 VET service providers (31 in 2021, 10 in 2022 and 10 in 2023) which is not even one-third of all licensed VET service providers.
[76] Specifically, the ATC's functions include providing materials for the assessment of students' knowledge, skills and capabilities as well as conducting audits on national and international levels for the assessment of the same (Government of the Republic of Armenia, 2004); at the same time, the NCEDI develops various assessment tools for schools and supports the coordination of national and international reviews of student assessments (National Center for Education Development and Innovation, 2022).
[77] Integrity of preschool education in Armenia: an INTES assessment. Milovanovitch & Bloem, 2020.

'Often NCEDI, ATC and NCET provide us verbal instructions for immediate application, and then in the course of action we realise these instructions contradict one another, sometimes creating problems for the schools, at times during the external assessment/inspections. Unfortunately, the schools suffer from this uncoordinated action, and none of the agencies later assumes responsibility for this. We are really not sure who exactly is responsible for which part of the education reform.'

School principal, participant of FG

Another example is given by the context of **textbook** standards development and review, in which the functions of the **Textbook and ICT Revolving Fund (TICTRF) and NCEDI** also need to be clarified.

Some progress in this direction should inspire future efforts, for example the coherence in the measurement of educational outcomes between the ATC and EIB or the clear delineation of roles and responsibilities between the RPPC and the NCEDI in the area of special education needs, as per the memorandum signed in 2022.

*Besides, **the institutional setting is currently undergoing some changes whose effectiveness will need to be monitored**, namely, the creation of a **Committee of Science and Higher Education** or the recent changes carried out in the management of the **Civil Service Office.***

In the daily operation of the education system also, the lack of institutional coordination among stakeholders responsible for the same areas of educational activity undermines coherence and prevents their full integration into education reforms. For example, **extracurricular activities**, which are not only historically an important part of the education system, but they are also a crucial contribution to levelling inequalities. Most extracurricular facilities are managed by the communities, while extracurricular education is operated by five institutions, under the supervision of the Department for General Education. Several sports facilities are managed by the Department for Sports Policy, and some institutions providing extracurricular education are managed by the Department for Cultural Heritage and Folk Crafts. The activities of the MoESCS structural units responsible for general education, culture and sports

often overlap with other outsourced service providers or actors involved in the system, requiring some clarification[78].

Decentralisation and accountability

The responsibility of the MoESCS, mentioned in its statute, to contribute to the balanced territorial development of education, science, culture and sports is not fully reflected by the policy, as there is no differentiated approach to the regions. In organisational terms, until recent structural changes in the MoESCS, each staff member of the Department for General Education was responsible for coordinating with only one regional Department of Education, limiting the development of a comparative perspective on regional needs. Strengthening the competences of MoESCS specialists working with or within regional education departments remain essential.

In addition, **the working relationship between the MoESCS and the regional Departments of Education – as decentralised services of the MoESCS operating under the authority of the regional authorities – is not clearly defined, which creates ambiguity in roles and responsibilities.**

As an example, the performance evaluation of schools is a joint responsibility of the MoESCS and the regional authorities, with EIB responsible for external inspections. This arrangement leads to fragmented and inconsistent evaluation processes in the country.

The **MoESCS has increased its influence over school management processes through measures such as the creation of separate high schools** in 2009 (independent from basic schools) and the recent introduction of the certification requirement of school principals. But these shifts in authority have also contributed to a more multidimensional and complex governance of the educational institutions.

The regional administrations are responsible for ensuring the implementation of education policy in the territory of the region[79]. However, there is no sufficient clarity on how regional

[78] For example, the statute of the Department for Sports Policy states that the department coordinates the development of standards for the 'Physical Education' subject in schools and monitors the teaching process. However, the development of school subject standards in Armenia is carried out by specialised working groups under the facilitation of NCEDI, but not by the MoESCS.

[79] When the first stage of education reforms began in 1999, the approach implied that the Ministry of Education was primarily responsible for the strategic management of the system, and the territorial and self-governance bodies were implementing the management of schools and kindergartens. During those years, several educational complexes, as well as special schools remained under the auspices of the ministry. However, the ministry did not form strategic, long-term

Departments of Education and governors are expected to carry out their monitoring functions in the field of education, and there is currently hardly such practice.

According to the Law on Local Self-Governance[80], the Head of the **Community** organises the implementation of **preschool and extracurricular** education policy in its territory and manages the facilities of general education schools and preschool institutions.

As part of the community consolidation reform, the involvement of communities in school management is planned to expand. Currently, full or partial transfer of powers of the regional governor in the field of education to communities is being considered. However, there is a significant **risk that capacity-building for education management at the community level will be more challenging than at the marzes' level[81]**.

At regional and local level, the Marzpetarans (Governor's offices) are responsible for implementing the state policies in the regions, including educational policies. Basic schools (Grades 1 to 9) and secondary schools (Grades 1 to 12) are acting under the jurisdiction of the regional Departments of Education, Youth and Sports. Preschools are managed by the communities. Separate high schools are managed directly by the MoESCS.

In each regional authority, there are decentralised services of the administration, including a Department of Education, Culture and Sports, which implements the territorial policy of the ministry. According to the Law on Territorial Administration[82], the regional governor has the following authorities in the field of education:

* implements general education programmes in regional state educational institutions;

* organises the operations of regional state educational institutions;

* ensures the construction, maintenance and operation of regional educational institution buildings;

* carries out monitoring of the situation in the field of education.

Article 38 of the Law on Education also specifically highlights that the Regional Governors are responsible for the coordination and oversight of registration of school-age children and their enrolment in educational institutions.

The Department of Education, Culture and Sports in each regional administration usually has a separate division of education, with generally five to six employees.

Education governance in Armenia is characterised by a complex decentralisation structure. By law, general education is deconcentrated at the regional level, while preschool education is

planning capacities and the regional administrations were not able to develop local capacity to implement local educational policy.

[80] Law No. 337, 2002: https://www.arlis.am/DocumentView.aspx?DocID=188985.

[81] Source: focus group with regional education departments

[82] Law No. 252-N, 2019: https://www.arlis.am/DocumentView.aspx?DocID=178970.

decentralised to municipalities. However, key responsibilities have also been recentralised from local authorities to schools, adding further complexity to the system (Mnatsakanyan, Felder, & Keil, 2023). Furthermore, **despite the existence of a legal framework for local self-governance, in practice, the transfer of responsibilities from central to the local levels is not adequately supported by resources and competences, nor by relevant accountability and monitoring mechanisms.**

The territorial organisation is lacking institutional capacity, as well as accountability frameworks and processes.

The communities and municipalities[83] are not mere implementers of the MoESCS policy, as they are responsible for preschool education and extracurricular activities and for making sure that school-aged children under their geographical remit are normally enrolled. They are also responsible for, inter alia, annual expense budgeting, funding staff salaries and signing contracts with elected principals (Government of the Republic of Armenia, 2010). Their financial resources stem from State transfers and local taxes. As part of the community consolidation reform, there are plans to fully or partially transfer educational authority in general education school management from regional governors to municipalities. However, building capacity for education management at the municipality level is likely to pose a greater challenge than at the regional level. At the school level, school principals indicated they lacked decision-making autonomy, and that, despite legal provisions granting autonomy to schools, not all principals take advantage of this, resulting in strong centralisation from the school to the local levels (UNICEF, 2022a). The change in formula funding may worsen this situation of low autonomy.

Decentralisation efforts in Armenia are further limited by insufficient resources and inadequate competences at the sub-national levels.

In the regional Departments of Education, Science, Culture and Sport, under the marzes' authority, **the number of employees** working in the local divisions for education **is small** (on average, **five to six employees in the education division of the regional Department of Education, Culture and Sports**, and very often, they are **not sufficiently informed** about their functions or the nuances of the reforms they have to support and monitor under their jurisdiction. The number of employees in the regional Departments of Education, Culture and Sports has been further reduced

[83] In Armenia, a municipality is an enlarged community, a set of villages or townships around one central bigger settlement. Which means that a municipality (enlarged community) has a unified governing system: a mayor and a Council of Elders. The process of community enlargement has been in place since around 2016.

in the result of recent internal restructuring of the Governors' Office staff. By early 2024, the specialised divisions of the Departments of Education, Culture and Sports were merged, and the number of employees was decreased to seven to nine, varying from one regional department to another. Moreover, the staff is not involved in any significant upskilling opportunities *(ETF focus groups, autumn 2024).*

The decentralisation related to the governance of general education is further limited with the introduction of the new mechanism of the public-school principals' appointment that re-centralises part of the recruitment process84. Previously the candidates for the public-school principal's position were voted in the School Board and once approved, were appointed (contracted) by the respective authority, i.e. the Governor for schools located in the regions, the Mayor for the schools in Yerevan, the Minister for all high schools, regardless of their location. The mechanism introduced since February 2023 has set up **Specialised Committees** where respective candidates are interviewed to be approved or disapproved for the respective public school principal's position they have applied for. The Specialised Committee is comprised of seven members with at least four representing the MoESCS. Only after the approval of this Specialised Committee may the respective authority appoint (contract) the principal[85].

[84] Government Decree No. 181-N of 9 February 2023 https://www.arlis.am/DocumentView.aspx?DocID=174135.
[85] According to the new mechanism, objections to the committee's decisions can be submitted to the Appellation Committee. The latter is comprised of five members, four of which represent the MoESCS.

> **'Although with the recent structural changes our authority has been significantly reduced, and formally we have become almost like mediators between the schools and the MoESCS and their agencies, we still intensively work with all schools in our region to support their effective operations. We are usually the schools' first point of contact for the school principals when they need information and consultation on the various aspects of school management, on early identification of dropout students and their return to school, helping them with their risk management plans, etc.'**
>
> *Deputy Head of a Regional Department of Education, Culture and Sports, FG*

There does not exist any formal communication (not to mention coordination) framework or mechanism among the different regional Departments of Education, Science, Culture and Sport, which could help them share information, practices, have experiences' exchanges and lessons learnt, or even seek synergies between their respective interventions. The working relationship between the MoESCS and these regional educational authorities is not defined either.

Finally, there is an issue of **accountability and monitoring** at the local levels, and from these to the central level. At the regional level, **the MoESCS** does not follow the implementation of territorial education policies and **lacks a differentiated approach across regions** (UNICEF, 2022a). At the regional level, there is no standard, agreed-upon monitoring, reporting, or evaluation mechanism in place. This means that financial resources are channelled to the municipalities according to the funding formula, but no feedback or reporting was required so far to be shared with the MoESCS on issues related to the performance of schools, the quality of education results, and the distribution and use of human and financial resources.

Based on ETF's understanding of the recent changes regarding the schools' financial and standards compliance, the MoESCS has introduced new operations in the NCET's online systems allowing certain financial monitoring of the schools. However, there are no formal descriptions of these mechanisms that were shared with the schools and all other stakeholders for providing more

clarity of the system's approach to collect and properly analyse the appropriate data. Thus, it can be treated as an essential process still in pilot and requiring a lot attention.

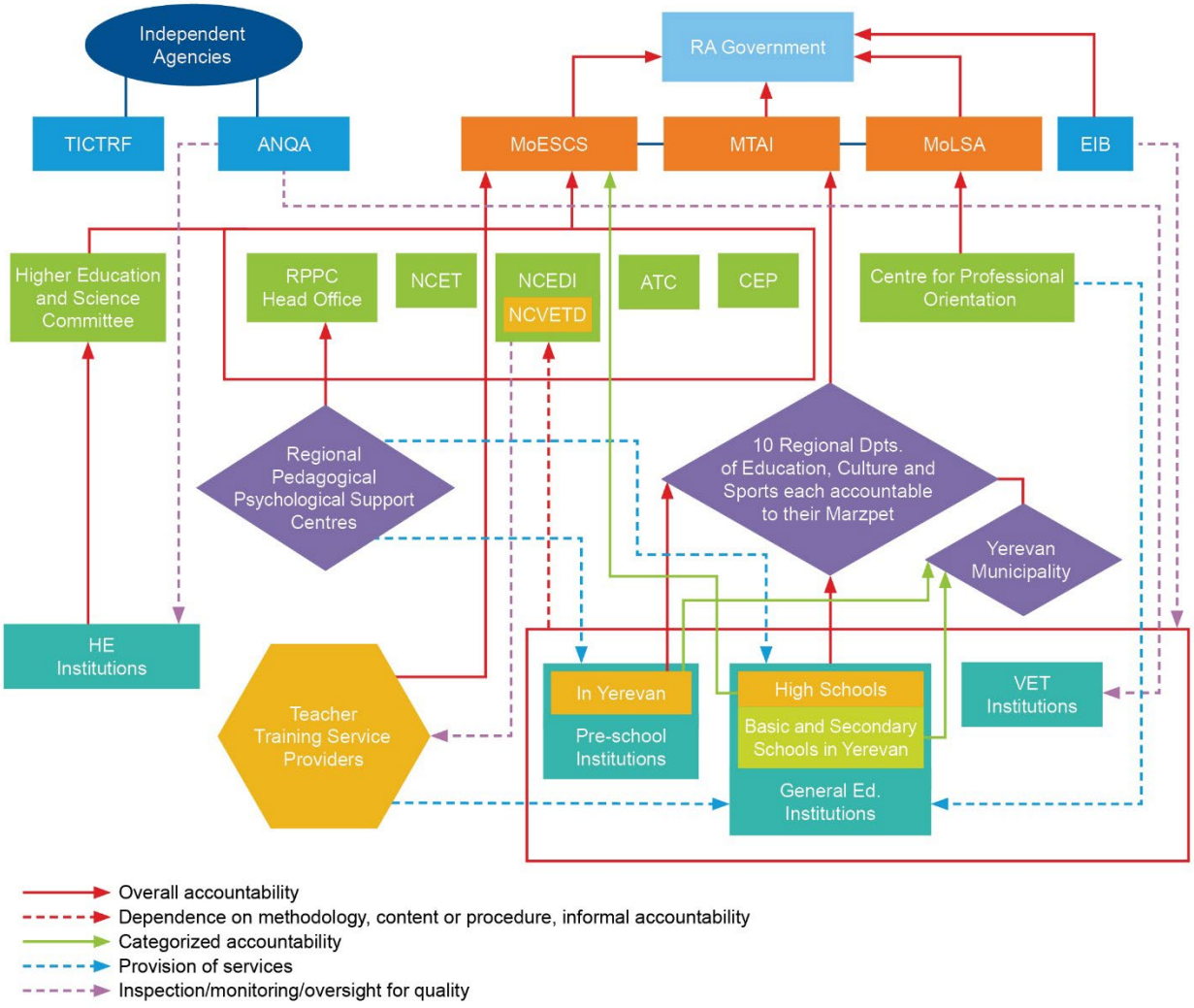
School autonomy and quality assurance

While the reform initiatives advocate for a more liberal and progressive approach based on school leadership and autonomy, the bureaucratic system can create obstacles to realising this vision in schools. For instance, school principals are required to present a school's development strategic plan during their selection process. However, in practice, their ability to make independent decisions, such as forming partnerships with external organisations (including NGOs), often depends on obtaining formal or informal approvals from the MoESCS. This requirement can slow down decision-making processes and limit the autonomy of schools, negatively impacting the implementation of teachers' innovative initiatives and principals' engagement with parents and the community.

Quality assurance at the school level is hampered by the suboptimal institutional setting; for instance, the role of EIB is mainly focused on checking the compliance with the norms, but does not provide recommendations for capacity reinforcement.

In a nutshell, the figure below shows the complexity of the institutional organisation, and the uneven links between the different structures.

Figure 23: Infographics of the Armenian institutional setting



Source: ETF's visualisation based on legislation review, 2024.

3.2 Strategic vision and policy process

The strategic vision of education and policy planning

A clear strategy for education sector reform is outlined in the Education Development Programme 2030, the only sector strategy approved as law by Parliament. This demonstrates the government's strong and consensual commitment to prioritising the sector. The strategic planning that is expected to support its implementation exists, is

dynamic (with annual revisions), but builds on limited participatory approach and is not yet fully operational.

- **The Education Development Programme 2030 reflects and builds on the priorities of the government and sets clearly formulated expected results.**

Priorities include:

- establishment of comprehensive student-centred and participatory education environment;
- improvement of the education efficiency and effectiveness;
- internalisation and exportation of education services and products.

The 23 clearly formulated expected results can be summarised as follows:

- 4 results aiming at ensuring availability and accessibility of preschool services in all areas of Armenia;
- 8 results aiming at improving general education, focusing on the qualification and remuneration of teachers, priority disciplines at schools, as well as on accessibility and quality of school buildings;
- 9 results aiming at ensuring the correspondence of the quality and graduation certification of higher and middle education to international standards;
- 2 results targeted at the education of Armenian diaspora.

The Education Development Programme 2030 focuses on the main reform measures and expected improvements in the system (the usual 'operations' or running of the system not needing to be part of such a strategic approach). However, it does not foresee important **changes in the way the system is operated and the policy steered**.

Ex p58

- **The action plan associated with the Education Development Programme 2030, is outlined for the duration of its team and details the reform measures and activities planned, but shows a number of weaknesses or gaps.**

- With the aim to operationalise this strategy, the revised action plan is structured around **six main sections** differentiated by their strategic goals, mainly related to the different education levels or types (preschool, general education, VET, higher education, non-formal

education and the diaspora). While this offers a clear picture of the intentions at each level, there is no indication on **the articulation between these education levels**, as well as the planned improvements/reform measures to the **transversal functions**, in terms of **governance** vertical (decentralised bodies) and horizontal (links with **other ministries**, civil society, teacher unions, development partners, etc.), **communication** (global campaigns), **monitoring and evaluation** (tools and frameworks).

- The action plan is designed as **a rolling document**, undergoing annual revision and update. As such, it could be worth considering that it be spanned over only the next two or three years, to allow for more details on activities and tasks to be performed, and on obstacles or risks to consider. In all instances, the expected outcomes, which are happily expressed in terms of quantitative targets, lack comparison to a clear **baseline, past trends** and mirrored with the exact **level of achievement** at the time of revising the action plan – this would help assess the **feasibility of the targets, hence the credibility of this education plan**. Without these elements, it is not easy to have a reality check of the current **absorption capacity** of the system and an appreciation of the **magnitude of the additional efforts** to be deployed.
- In terms of **conditions for successful implementation**, the action plan does not precisely nominate expected **implementers or co-implementers**, including executive agencies of the actions, which would be needed for **ownership**, **mobilisation and accountability**. The expected role of **other partners** from different levels, including the civil society organisations, the local community or development partners would also need to be formulated and promoted.
- At the **financial level**, as mentioned in the financial analysis section, the document does not foresee a cost estimate of the different activities, nor does the approach allow for anticipating or simulating the direct financial impact of important measures (e.g. rewards to teachers, bonuses, increased rate of payment, etc.); it would be essential to clarify how the targets were set, in particular if they reflect preliminary agreements with the Ministry of Finance (and the International Monetary Fund as needed?), and if they follow a prior check of legal arrangements and possible constraining rules regarding staff salaries and compensations. The external donors' contributions, with their status (secured, committed, envisaged) would also help assess the sustainability of the plans.
- The **review mechanism** of this plan is not defined (periodicity, modality, actors involved, tools, etc.). More generally, an introductory narrative, briefly explaining the background, purpose, target users and how to read the document would make it more user-friendly.

The use of data and EMIS for policy making

The National Centre for Educational Technologies (NCET) is responsible for the Education Management Information System (EMIS), which has undergone significant improvements in recent years. NCET also produces high-quality analytical reports on demand.

In addition to the data currently available – some of which is also produced by ARMSTAT, other by ANQA – there is potential to systematically collect or make available additional data to support policy monitoring and decision-making related to new initiatives or remediation measures.

Based on hands-on experience from RED implementation, the expert team has identified some gaps and weaknesses that warrant consideration to enhance the use of data in policymaking. The list of additional data to be collected or made available is outlined below.

Data concerning schools (and children in these schools): in addition to standard data fields, the following specific categories should be included:

- number of pupils enrolled in multiple shifts, as current data only includes the number of schools and grades operating in multiple shifts, making it difficult to determine the actual number of students concerned;
- number of students enrolled in prolonged after-class hours (targeting low-achieving children);
- funds per school allocated to prolonged after-class hours for low-achieving children, categorised by subject and teacher;
- funds per school allocated to project-based learning, derived from the discretionary-use budget;
- funds per school allocated to school clubs, derived from the discretionary-use budget.

Data related to wellbeing, child protection and inter-agency cooperation:

- school safety data, including measures against bullying and student violence (e.g. incidents of accidents or security issues);
- availability of school-based health and support services (e.g. on-site nurse, supportive services);
- information on nutrition programmes;
- number of students in conflict with the law (under house arrest, on probation, in shelters or incarcerated).

Data related to republican pedagogical-psychological centres:

- number of teachers trained to work with children with special educational needs;
- number of children assessed or supported through long-term Individualised Learning Plans (ILPs), with outcomes recorded at the end of each cycle.

Data related to teachers (national, regional, and school level):

- number of teaching hours of teachers solely engaged in teaching, and number of teaching hours and of extra activities of those now titled as 'lecturers';
- number of teachers engaged in professional training, qualification grading, mode of training, training organisation and progress (from self-assessment to attestation scores);
- number of teacher vacancies by subject;
- actual average national salary of teachers;
- funds spent on organising professional training for teachers and conducting attestations;
- funds spent on supplementary payments for attested teachers and those for STEM teachers;
- funds spent on reimbursement of travel, accommodation and supplementary payments for teachers working in remote villages.

Missing indicators and other data analysis issues:

- **net/gross enrolment rates of general education by educational level** (using ISCED levels 1, 2, and 3) at national and regional levels for international comparability. Currently, data is categorised by school type (basic, primary, high), but there is an overlap between primary (Grades 1 to 4) and basic (Grades 1 to 9) education;
- **completion and survival rates** as UIS UNESCO (indicators from ARMSTAT (by grade or education level), useful for monitoring enrolment should include these internationally recognised measures).

Issues with metadata and data availability:

- ARMSTAT's online repository (https://statbank.armstat.am/) contains detailed data on pupils, schools, buildings and teachers. Some indicators lack adequate explanations or footnotes (e.g. whether 'number of computers' includes all school computers or just those used for teaching). Annual reports often include more detailed data than the online

repository but are available only in PDF format, which lacks consistency with the repository's notation (e.g. year vs academic year format);

- reports are available only in PDF format, impeding direct use of data for further or disaggregated analysis.

The resilience of the education system

The resilience of the education system has been proved by the remarkably quick integration of the children from Nagorno Karabakh. However, the volatile situation in the region calls for optimal preparedness of the schools to face disruptions likely to occur in the normal schooling routine. An education preparedness indicator to assess the level of readiness and resilience in the provision of compulsory education to children was developed by researchers at Yerevan State University in 2023, considering the effects of the COVID-19 pandemic[86]. But there is no evidence that this indicator has been effectively introduced/implemented.

According to information provided for 2023 by the MTAI, in 56% of preschool institutions operating in Yerevan and 10 regions of the Republic, disaster risk management plans have been developed and approved. The share of general education institutions that implemented 100% of their approved disaster risk management plan is reported to be 33%. The share of general school employees who participated in disaster risk management and crisis response training courses was 36%. **The share of schools with shelters/refugees was 29%; meanwhile no information is provided about this regarding preschool institutions[87].**

ETF experts' informal discussions with a handful of parents revealed that families are unaware of the key aspects of these risk management plans, of their responsibility and of how to coordinate with schools in cases of disaster or crisis.

The scope of MoESCS's responsibility in this matter remains unclear, given that the primary agency tasked with coordinating these activities with schools, and subsequently transmitting the relevant information to MoESCS, appears to be the MTAI. The latter operates in partnership with the Regional Rescue Services of the Ministry of Internal Affairs for the purpose of approving the plans submitted by schools.

[86] EPIC.pdf (ces.am)
[87] MoESCS 2023 Report on the Progress of the Education State Programme Until 2030.

On a related note, although no specific data are available for the education sector, it is important to take into account both the challenges and the incentives for enhancing transparency in Armenian public policy. The pronounced political polarisation within Armenian society has been associated with appointments and recruitments that may not always align with competence-based criteria, as trust often plays a decisive role. In public procurement, the share of single-source (direct) contracts accounted for 25% of the total value of contracts across the public sector (OECD, 2024). In 2023, Armenia received a score of 47 out of 100 on the Corruption Perceptions Index (CPI), a widely used global indicator of public sector corruption. At the same time, anticorruption measures currently in place may, at least in the short term, generate bottlenecks stemming from concerns about the risk of being accused of corruption, and therefore reluctance to authorise decisions.

3.3 Management of important areas of reform

School teachers and principals management

Teacher management is paid priority attention, but not in the holistic manner that would be needed given the connections between the various issues at stake, nor is it supported by accurate data monitoring.

- **The attestation process**. It has been set up to address the quality and motivation/attractiveness issues of the profession. However, results remain below expectations due to a standard approach not taking into account the different seniority profile of teachers. Proposed on a voluntary basis and expected, upon passing, to lead to higher quality of the teaching force and higher salaries, thus reinforcing the attractiveness of the teaching profession, the measure envisions that applicants who score 60% or higher will receive a 30 to 50% increase in salary. However, the **undifferentiated design** of this measure raises problems and reluctance. First, it raises the pre-requisite for entering the teaching profession **from secondary specialised education to a university diploma or the successful completion of the attestation**; while this requirement is explained by the need to increase quality, it limits the number of possible entrants in the profession in a moment of critical lack of teachers, linked in particular to the ageing teaching force[88]. In addition, the rule for taking the attestation process stipulates that after the second try, **failure could lead to dismissal**, which discourages many teachers from trying (especially the ones with seniority, whose knowledge and experience could be less valued by this type of test). As of April 2024, out of the 29 000 general education teachers, around **7 000**

[88] In the 2021/2022 academic year, the average age of a general education teacher in Armenia was 46.8 years old, almost half of the overall teachers were over 50, and the largest share of teachers was in the 60-64 age group (World Bank, 2021).

applied for the attestation **and 3 830 (or 54.7%) successfully passed it**, with 1 600 already having been awarded a new teacher's ranking and salary. It should be noted that in 2021, only Grades 7 to 10 teachers, and in 2022, only Grades 5 to 12 teachers were allowed to apply for attestation. Only in 2024, all grades' teachers were authorised to apply for attestation, together with people who are not employed but have a pedagogical education and meet the requirements to become a pedagogue (Mkrtchyan, 2023). Therefore, the MoESCS (2024) expects the number of applicants to grow considerably.

'Both the teachers and we, as training service providers, strongly appreciate that the State has shifted from the practice of standard trainings for all to the needs-based professional development approach; however, the way the process has been designed and is now being implemented is very problematic. The needs assessment is the foundation of the entire process, yet it is constructed on a primitive dichotomy of responses to be selected by the teacher, which complicates the organisation of the training. It does not allow the teacher assessing their needs or the principal assessing their teachers' competencies to fully grasp the scope of the measured item and respond appropriately. This new regulation urges for in-depth revisions.'

Teacher Training Service Provider, Participant of FG

- **Pre-service education and support for novice teachers**: There is room for improvement in aligning pre-service education with the evolving needs of the field, especially in equipping graduates with practical skills and knowledge of modern instructional methodologies. Many new graduates could benefit from additional training in 21st-century skills. While some initiatives exist, there is a need for more structured and consistent onboarding (in-service) training and mentoring for novice teachers. Current support mechanisms, such as conferences and contests, are valuable but could be complemented by more coordinated efforts that focus on assessing and addressing teachers' professional development needs. The new teacher attestation regulations are a positive step in this direction, incorporating self-assessment by teachers and evaluations by school principals. Additionally, the

attestation process now includes novice teachers with one to five years of experience, which can further aid in their professional development.

- **Inclusive education**: Schools are working towards improving support for students with special needs, but there are opportunities to enhance coordination between teachers and specialists, such as psychologists and speech therapists. The territorial pedagogical-psychological support centres and mentoring projects launched in recent years represent significant efforts to address this issue. The teachers intensively complain from the fact that **in addition to their teaching responsibilities based on the new standards to which they still need to adjust,** they are requested to complete technical **tasks** that are creating a serious overload.

'We expected that the introduction of digital operations will help us and the teachers to make our work easier and quicker. Instead, the newly required online tasks challenge us, in particular terribly overloading the teachers.'

Principal, Participant of FG

'There is a lot of copy-pasting in various forms required without reasonable justification for the need of these seriously time-consuming tasks. With the teacher's current salary and without having enough computers or proper connection in schools, it is not realistic to demand such intensive tasks from teachers. These are especially very difficult tasks for senior teachers.

Plus, teachers are not paid for these tasks performed outside of their teaching hours, but we work until late evening to complete online data into the EMIS. This creates major dissatisfaction and, eventually, even the most experienced and committed teachers may lose their motivation and leave the system.'

A teacher, participant of FG

- The fact that teachers seem to be requested to do tasks besides teaching responsibilities is creating overload. The share of teachers who cover functions other than teaching is particularly high in general secondary schools (Grades 1-12) and gymnasiums (Grades 5-12), corresponding to respectively 38.4% and 32.6% of the overall number of teachers in the 2023/2024 academic year (ARMSTAT, 2024). More generally, teachers are expected to stand in for absent teachers, plan and organise events and performances with their classes, and complete administrative paperwork, among other responsibilities (UNICEF, 2022c). While teachers' working hours are officially stipulated, working time beyond actual teaching is not formally specified (Ibid.).
- The lack of teacher standards for **preschool and primary** education.
- In general terms, the effectiveness of the responses provided by the ministry to the teacher management challenges in order to generate a constructive policy approach based on evaluations and results.
- Regulatory changes: Teachers often face evolving regulations, and there is an opportunity to provide more comprehensive preparation and support to help them adapt to these changes.

‘There are too many content and process changes quickly introduced one after another, without enough advance time for reaching out to the teachers and the parents and without timely provision of detailed information on their implementation. It is extremely challenging for us to quickly absorb the nuances of all of these new processes; therefore, sometimes we are unable to provide exhaustive explanations to the parents of our students about the new procedures. As examples of such processes are the removal of score-based assessment in the primary school or the implementation of formative/descriptive assessment. When neither the teachers nor the parents are fully aware of the technical nuances of the processes, the purpose they serve, it creates a big possibility for misunderstandings, errors in the actual process, dissatisfaction among the beneficiaries, conflicts between the teachers and the students or their parents, eventually affecting everybody’s motivation to stay committed to the reform.’

Teacher Training Service Provider, Participant of FG

As described above, in 2023 a radically new regulation was introduced for selection of school principals; however, no risks were calculated before its launch. This resulted in a serious challenge for the system: in October 2024, about 200 schools were operating without a principal for months because the applicants for this position were unable to overcome one of the stages of the procedure once or multiple times.

With the amendment to the Law ‘On General Education’ at the beginning of 2023, those aspiring to become school principals must pass three stages of examination: (1) written testing and certification stage; (2) preparation of the Development of Plan for their School; and (3) interview with Selection Committee.

According to the Deputy Minister of Education, Science, Culture and Sports, Ms Araksia Svajyan, *’first, about 85 per cent of applicants fail the written testing and certification stage, and 60 per cent of those who pass to the next stage, lack knowledge of education management. This year,* ***853***

***school development programmes were examined, but only 99 received a positive conclusion. Out of 99 development programmes with positive conclusions**, only 44 received a positive conclusion after the interview. We are in a bit of a crisis, because in more than 200 schools we do not have a principal, we have temporary acting or acting principals.*

This testifies to the fact that no sound baseline evaluation of the beneficiary capacities or system readiness was conducted, and no risk mitigation plans were designed, while the school principals are crucial actors in the education system.

Besides the possible issue of their knowledge and skills, applicants report the lack of standardised assessment of the plans. In various public meetings, the MoESCS representatives have agreed that there is a lack of experts who have an in-depth knowledge of the education system coupled with project management skills and can properly support this process.

The education offer planning

The **education offer planning** seems to be done on a principle of 'historical' stability, meaning it is not linked to demographic dynamics nor to (local) economic prospects, leading to a lack of integration of the education offer throughout the levels.

EMIS improvements seem to be promising for the monitoring of enrolments, but the link to the adjustment of the education offer remains uncertain. This is particularly problematic for what concerns the adjustment of the VET offer to labour-market needs**.**

The VET sector, just like other sectors of Armenia's education system, is under a big reform. The new law on vocational education and training proposed by MoESCS has already been adopted by the Parliament. Among the key features of the new VET law are:

- harmonisation of concepts and definitions (unlike the existing law, the new law recognises just one type of VET institution (that being the college);
- institutionalisation of dual and work-based education;
- betterment of VET institutions governance and implementation of a cooperative model for education management, with increased responsibility by non-governmental and business partners; revised general requirements for VET programmes, including the opportunity for additional courses certifying learning outcomes obtained and providing the basis for micro-qualifications and micro-credentials;

- a revision of the VET financing system and promotion of entrepreneurial activity; review of recruitment and training mechanisms of administrative and teaching staff at VET institutions, including VET teaching staff attestation with respective salary increase; and
- a regulation of rights and responsibilities of VET students and trainees[89].

It is important to already plan a systematic and comprehensive evaluation of the impact of the new VET law after a reasonable period of enforcement.

Digitalisation

Digital infrastructure and environment

Connectivity. **All schools in the country are connected to the internet but with disparities in the quality of connection** (Teachers' targeted collective consultation, 2024). Through the national intranet, each school has its LAN (Local Area Network) supported by NCET's vendors. The internet is available mostly in the school principal's office and the neighbouring rooms for administrative operators, and generally also in the informatics classroom – in the best-case scenario, all functioning computers in that room are connected to the internet; in the worst case, only the teacher's computer has connection (Ibid.). The results of the Self-reflection on Effective Learning by Fostering the Use of Innovative Educational Technologies, i.e. SELFIE tool – piloted in Armenia in 2023 and gathering views from school leaders, teachers and students on the digital capacity of 22 general education institutions – report that 27.22% of teachers and 25% of school leaders exhibit awareness of an untrustworthy or sluggish internet connection (ETF, 2024). It is up to each school to arrange their additional Wi-Fi modems to enable extended access to the internet during teaching processes. Usually, the **teachers use their own phones to access the EMIS** system for inputting their records. In one of the 18 Mentor schools[90], the teachers arranged a few additional Wi-Fi spots on their own initiative to be able to provide mentoring properly (Teachers' targeted collective consultation, 2024)**.** In terms of access from home, in 2020 only 80.1% of urban and 71.5% of rural households had at least one member with access to the internet (ARMSTAT, 2021).

Digital devices. While the number of computers per 15-year-old student in Armenia is comparatively high[91], the **functionality of the devices is variable**. **27.4% of school computers**

[89] https://escs.am/am/news/20308.
[90] The 18 Mentor schools were established in March 2020, through the cooperative efforts of UNICEF and NCET during the COVID-19 pandemic within the 'E-school Armenia' programme, and they are still providing distance learning education to about 101 rural schools across the country without enough teaching staff (MoESCS, 2021).
[91] In Armenia, the number of computers per 15-year-old student was equal to 1.0 in 2020, compared to the average of 0.81 in OECD countries, 0.46 in Georgia, and 0.55 in Moldova, 0.57 in Azerbaijan (Baku), and 0.61 in Ukraine (OECD, 2024).

in Armenia are out of order, and **52.8%** of operating computers are **Pentium 4 or older** (Government of the Republic of Armenia, 2022)[92]. According to the SELFIE pilot, devices for students averaged a low 3.6 out of 5 satisfaction score, indicating that respondents hold a less favourable view of the availability or quality of these devices in the schools (ETF, 2024). In particular, 32.84% of teachers and 26.92% of school leaders perceive insufficient digital equipment as a challenge they face (Ibid.).

Finally, in terms of access from home, in 2020, only 63.1% of urban and 50.8% of rural households had at least one member with access to a computer (ARMSTAT, 2021).

Digital capacity and management of schools

According to the SELFIE pilot, **insufficient funding** is the main issue that school leaders (40.38%) have identified for digitalisation efforts in their schools, and a sizable share of teachers (27.22%) agrees (ETF, 2024). Moreover, both school leaders (40.38%) and teachers (38.46%) acknowledge that insufficient time is a notable issue for teachers (Ibid.).

Teachers' competencies, pedagogies and impact on learners

According to the SELFIE pilot, 13.46% of school leaders and 14.02% of teachers view the **low digital competencies of teachers** as an urgent problem (ETF, 2024). This means either that teachers possess a satisfactory level of digital competencies, or, more likely, that they do not but that this is not considered a priority. On the other hand, a higher proportion of school leaders (15.38%) compared to teachers (11.54%) perceive the **low digital competencies of students** as a significant challenge (Ibid.). Still, that means that the overarching majority of school leaders and teachers do not consider digital competencies of students as an urgent issue to be solved.

Green transition

Pedagogical approaches and impact on learners

Gaps of green curricula in VET and higher education. Vocational education lacks a specialised curriculum focusing on sustainability and climate change issues. Rather, these topics are indirectly addressed across various special professional modules of the state educational standards, reflecting resource management, waste disposal and environmental conservation as fundamental elements of the modules. Moreover, the National Centre for Vocational Education and Training Development (NCVETD) in Armenia – tasked with the development and revision of curricula

[92] According to MoESCS, presently 48% of all schools are provided with new computers, and by the end of 2026, all schools will have fully equipped laboratories funded by the State budget, EU budget support and the World Bank's 'Additional Financing for the Education Improvement Program'.

across various sectors with careful consideration given to employers' requirements and the needs of the labour market – recently developed green-related professions such as: *'installation, repair and maintenance of renewable energy power plants'*; *'installation, repair and maintenance of solar energy plants, electrician-valve fitter'*; *'technical operation of thermal energy equipment and thermal networks'*; *'fitter: repair and maintenance of heat network equipment'*, etc.[93]

According to the Education Development Programme 2030, one of the major challenges in the field of higher education is updating the quality of instructional materials and procedures to the rapidly evolving demands of the modern society and economy, including with regards to 'green education', intended as environmental sustainability and ecological awareness to be incorporated through teaching subjects such as climate change, biodiversity conservation, renewable energy and sustainable development practices. Presently, the educational programmes offered by universities do not comprehensively align with the 'green education' knowledge, abilities, and skill outcomes outlined in the National Qualifications Framework (NQF)[94]. Implementing sectoral qualifications frameworks (SQF) is expected to serve as an intermediary tool to shape higher education programmes in accordance with the learning outcomes defined by the NQF.

The following table presents the targets for considering the principle of 'green education' in the modernised educational programmes of the universities to be reached via developing SQF in correspondence with the NQF learning outcomes.

[93] Source: National Centre for Vocational Education and Training Development (NCVETD). For standards, see: https://mkuzak.am/չափորոշիչներ-և-մոդուլային-ծրագրեր/վերանայված-պետական-կրթական-և-չափորոշ/?lang=en.
[94] Action plan derived from 'The State Programme for the Development of Education of the Republic of Armenia until 2030', Government Decision N351-L, 16.3.2023, page 35

Targets for the integration of green education et the alignment of educational programmes to the NQF

Years	Targets		
	Number of developed standards	Share of educational programmes adapted to the NQF	Share of revised educational programmes which include 'green education'
2023	29	at least 10%	0 (baseline)
2024	36	at least 30%	at least 5%
2026	50	at least 50%	at least 15%
2030	60	100%	at least 25%

However, the definition of the indicator remains vague and the definition and method for calculating these shares would need to be clarified.

Green policy measures, monitoring and governance

There are limited capacities at national and sub-national levels to design and implement green and sustainable economic development policies. This makes it challenging to switch to eco-friendly ways and solve existing economic and food security issues, especially in the near-border areas.

There is a lack of unified governance and management systems for green initiatives in education. Armenia, like many countries, has been increasingly emphasising environmental sustainability in various sectors, including education. However, there remains a lack of a unified system for the governance and management of environmental efforts in education. This results in many initiatives from grassroot education actors, which, however, lack clear management from the government authorities and are not upscaled to higher levels. In certain communities, individual teachers assume the responsibility of initiating environmental projects with their students. After becoming aware of international programmes, those teachers draft proposals for implementing projects and carry them out on their own initiative. Similarly, in many schools, one can observe the presence of green spaces, thanks to the dedication of teachers and motivated directors who prioritise the role of the environment in education. The students are thus engaged in activities such

as planting trees, creating gardens, and implementing recycling programmes, and they are encouraged to promote green-friendly behaviour. Nonetheless, without clear steering from higher levels in the education system, green projects and initiatives might not be widely recognised or easily accessible to all schools, particularly within certain disadvantaged communities.

Green research within the education system. There is **insufficient government funding** allocated to climate change research in Armenia. This restricts the scope and scale of research initiatives, impeding progress towards developing effective solutions to combat climate- and environment-related challenges[95].

There is a lack of capacity in areas such as green, digitalisation or inclusiveness issues, especially but not only in higher education, which require capacity-building[96].

This chapter on findings underscores urgent challenges in Armenia's education sector, particularly in addressing inequalities, improving governance and mobilising resources. As will now be explained in the tentative recommendations, prioritised interventions in these areas can create a more inclusive, high-quality education system, aligned with Armenia's long-term development goals and the Education Development Programme 2030.

[95] 'An Assessment of Investment Needs for Climate Action in Armenia up to 2030', EU, BMZ, 2023: https://www.eu4environment.org/app/uploads/2021/04/Report-Assessment-of-Investment-Needs-for-Climate-Action-in-Armenia-up-to-2030.pdf https://www.adb.org/sites/default/files/publication/927031/sdwp-089-climate-resilient-fiscal-planning-armenia.pdf, 'Prioritizing public investment in Armenia's changing climate', WB, 2024 : https://blogs.worldbank.org/en/climatechange/prioritizing-public-investment-in-armenia-s-changing-climate
'Climate Resilient Fiscal Planning in Armenia' ADB, 2023: https://www.adb.org/sites/default/files/publication/927031/sdwp-089-climate-resilient-fiscal-planning-armenia.pdf
Scaling up green finance in Armenia: https://greenfinancearmenia.am/en/green-finance/green-finance-in-armenia/progress-updates/.
[96] Development partners' meeting, March 2024, Erasmus+ representative view.

Recommendations

The recommendations proposed below draw from the analyses provided in the previous chapter. They have been clustered around three main areas, which in turn unpack different topical focuses, considered as key success factors of the education reform planned.

Their design has also been guided by the **main transversal needs** of the Armenian education system as they have appeared throughout this diagnostic process for more **participation and coordination, differentiation and flexibility, as well as instrumentation in the policy approach and philosophy**. This entails, for example:

- genuine participation of a greater variety of stakeholders, throughout the policy cycle;
- operational coordination within the MoESCS, with other ministries, with agencies and between central and sub-national levels;
- differentiation in the definition of the reform measures, according to the target concerned (e.g. young teachers vs senior teachers in the attestation process), to the region concerned (e.g. need for affirmative actions in border or remote regions);
- flexibility to allow temporary remediation measures to apply when conditions are not met to abide by the rules, norms and standards, upon proper justification;
- instrumentation thanks to a formalisation of reporting and accountability mechanisms and frameworks, coordination channels, the use of robust planning methods and tools, etc.

This should greatly improve the adaptability and resilience of the education system, while ensuring a close monitoring of policy reforms' effects and impact.

Area 1: improving the governance of the reform (and maximising its chances of success)

1.1 Set up formal coordination frameworks at all levels - to improve reform implementation and maximise results

- Add a chapter on governance in the Education Development Programme 2030 and in its action plan, with an intent to de-cluster the management of the sector.
- Operationalise the interministerial relationship between Ministry of Finance and MoESCS in order to ensure a stronger link between policy and funding.

- Reinforce collaboration rules and methods between MoESCS, MLSA, Ministry of Health, Police and Ministry of Territorial Administration, and infrastructure for the case management of children in especially difficult circumstances.
- Create frameworks for regular coordination between MoESCS and regional Departments of Education.

1.2 Ensure transparent, accountable and participatory governance mechanisms – to improve reform relevance, monitoring and acceptance

- Refine (or associate) the action plan into (to) a real, operational roadmap or dashboard for effective monitoring of progress.
- Create effective reporting tools to be filled in by public institutions implementing the reform.
- Define a framework, tools and consultation mechanisms for regular lessons learnt of pilot interventions and feedback loops from partners on the ground (including teachers and schools directors, with allowing for anonymous feedback) and entrust an organisation (Strategic Planning Department?) for its consolidation and use.
- Organise an open discussion on the current mechanisms of policy dialogue with representatives of the main stakeholders of the education system and collect improvement suggestions in terms of channels, rhythm and desired content for a two-way communication – and act upon these suggestions.
- Extend the deadlines for public online consultations that are legally required to allow sufficient time for useful contributions, and follow up with sharing information on the feedback collected and possibly on remediation measures adopted.

1.3 Organise annual joint-sector reviews - to steer the reform and inform remediation measures

- Learn about and adopt a robust methodology for effective, evidence-based joint-sector reviews.
- Organise at least once a year a one-week joint-sector review gathering all levels of stakeholders, civil society and development partners, and combining technical and political discussions.

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Area 2: enhancing the resources of the education sector

2.1 Optimise state budget utilisation

- Do an analysis of the reasons behind budget underspending and in-year revisions and include the findings in the relevant reports.
- Refine the formal collaboration framework between the Strategic Planning and Monitoring Department and the Finance and Budget Department, and the line departments within the MoESCS to ensure coordinated planning and financing of the education strategy.
- Review and simplify as possible (without jeopardising transparency) the procurement procedures by the educational institutions.
- Secure a budget line/funds to enable the Strategic Planning Department to fulfil its role.
- Ensure appropriate levels of funds for deploying well-facilitated pilots of new reform measures and their proper evaluation to reduce policy ambiguity or conflict, and ensure their sustainability over time for effective scaling-up.
- Enhance the capacity of relevant stakeholders at national, regional, municipal and school levels to use the EMIS as the main basis for budget preparation and financial reporting.
- Update EMIS fields as needed to capture and consolidate financial information from the ground to the central levels.

2.2 Diversify financing sources

- **Schools**: Upon verification of legal room for manoeuvre and gathering of international good practice on income-generating activities, encourage both VET and general education schools, through promotion campaigns, to develop these; or review as needed the legislation to allow them.
- **Diaspora**: Add a dimension to the strategic approach to diaspora in the Education Development Programme 2030 in a perspective of resource mobilisation – explore and discuss the possibility of incentives for diaspora contribution (and learn from others' experiences of diaspora education funds, as a possible long-term objective to channel diaspora funds into the education system).
- **Private sector**: Review and adapt the regulatory framework and incentive schemes to promote stronger private-sector involvement especially in VET institutions, including through public–private partnership models.
- **Preschool institutions:** Based on a review and an exposure to different models of preschool management, propose alternative models (including their funding schemes) enabling an increased preschool offer, especially in rural areas.

2.3 Increase efficiency in the use of resources

- **Provide the framework:** List, update and disseminate general principles for optimal use of resources (e.g. through a circular), such as facilities consumption, multiple use of premises across various education services (e.g. general education, non-formal education, adult continuing training, etc.).
- **Delegate responsibility** and encourage creative asset management schemes: entrust school directors to submit a proposal for efficiency gains based on the abovementioned framework and guidelines to be prepared by MoESCS.
- **Ensure accountability**: Map the stakeholders involved in state budget use and assess channels currently used for ensuring their accountability at national and sub-national levels; create accountability tools whereby actors receiving and managing public money report regularly on their decisional criteria and practices for allocating resources, alongside sharing monetary accounts.
- **Conduct a cost–benefit analysis of outsourcing service provision**, including the overall outsourcing strategy, target beneficiaries, operational scope and tendering procedures (e.g., private companies, NGOs, teacher training providers).

2.4 Ensure equity

- **Map all the current or recent financial measures and evaluate their effectiveness, in particular for levelling inequalities** (e.g. rewards and financial incentives for teachers and other personnel, scholarship schemes for students, subsidies, etc.).
- **Set up transparent principles allowing for differentiating the financial support to regions and for affirmative action**, depending on their respective needs, own resources, capacity and potential (priority to remote regions).
- **Create equity measurement tools** inspired from international good practice and entrust the relevant line departments with their regular use.

Area 3: reinforcing the institutional capacity of the MoESCS to perform its key functions

3.1 Vision-building for the education sector

- Review and reinforce the **articulation** – pathways, coordination or synergies – between the **various sub-sector strategies** as formulated in the various chapters of the Education Development Programme 2030 (or its action plan).
- Develop, make explicit and/or make more concrete the strategic steps/actions planned to make **VET and HE more relevant** to the labour market.
- Differentiate more clearly the **vision(s) for preschool services**, between early childhood *development and care* for zero- to two-year-olds and preschool *education* for three- to five-year-olds.

3.2 Planning, monitoring and evaluation

- Re-position the **body in charge** of planning, monitoring and evaluation to a higher hierarchical level to **legitimate leadership** (Strategic Planning Department or equivalent attached to the Minister's Cabinet?).
- Visualise, review and clarify the **governance of the data cycle** from production to quality check, analysis and use, including various actors in charge of each step, time frame, guidelines to follow and specific capacity-building needs.
- Adopt a **differentiation approach** in the design of the reform measures **according to the target audience** (e.g. new, young versus senior teachers and the certification process).
- **School offer planning**: Adjust the norms for places by specialty in VET to the data collected with MLSA and reflect on possible sanctions if not respected, as a way to make quality assurance effective. Do an analysis of preschool waiting lists and revise criteria for priority access in a perspective of inequality levelling.

3.3 Implementation of the education policy at the national and sub-national levels

- Propose a **self-assessment tool for all executive agencies** and departments to reflect on their mandate vs their human resources.
- Do a **functional review of regional Departments** of Education and redefine their roles in a realistic manner related to their position, within elected authorities and their resources.
- Facilitate the **'legal literacy'** of stakeholders and beneficiaries on the operational rules of the education system by developing and updating a user-friendly storage of legal documents on the MoESCS website, including a search engine by key words.

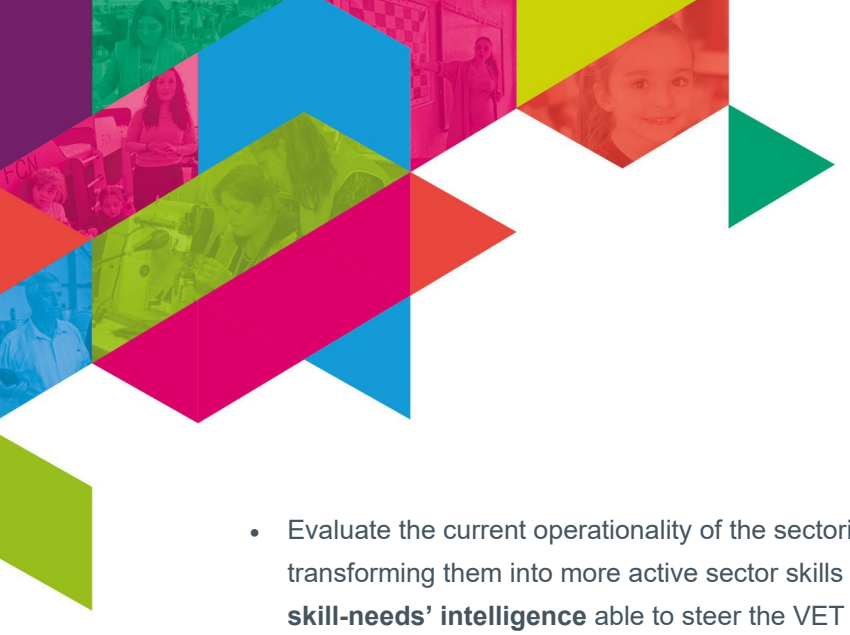
- Explore and discuss room for manoeuvre for revising the level of **teacher recruitment processes** or introducing **teacher mobility schemes**, in order to also address teacher shortages issues through greater geographic fluidity.

3.4 Data collection and analysis

- Complete the **list of data gaps** identified in this report through a systematic consultation of main data users, relating these missing data to their expected use and revise EMIS fields accordingly if needed, including financial flows, specific data regarding schools, teachers and children (suggestions available in the core report).
- Do a **review of the whole education data cycle process** from collection to use, to identify weaknesses, including redundant requests to actors, inefficiencies, inputting and analytical capacity-building needs, requirements to streamline the processes and facilitate their use throughout the policy cycle, and pre-requisites for inter-operability with other important national databases (see also in governance).
- Design and ensure resources for a **capacity-building plan** based on user-friendly guidelines' addressing the various data producers in order to ensure quality of data inputs.
- Develop a framework and methodology for the production and use of **qualitative data**, in order to assess the impact of new measures or programmes in almost real time, namely before impact might be seen though EMIS quantitative data.
- **Require NCET and ARMSTAT to collaborate** and:

    - systematically calculate and share key indicators compatible with international benchmarking by education level (ISCED 1, 2, 3);
    - improve the accessibility of EMIS and ARMSTAT online platforms by providing comprehensive footnotes and metadata;
    - make statistical reports available in spreadsheet formats (e.g. xlsx or csv) instead of just PDF to facilitate data analysis.

- Track data on applications for school principal positions: digitalise the submissions and assessment processes of the candidate's school development plan to ensure consistency and transparency of the process.
- Chose an appropriate methodology for using **employability measurement tools**, and then coordinate with MLSA for integrating a skills-needs request into employers' surveys, and with VET colleges to implement tracer studies.



- Evaluate the current operationality of the sectorial committees and explore the possibility of transforming them into more active sector skills councils in charge of regular **labour market skill-needs' intelligence** able to steer the VET and higher education offer.

3.5 Research and innovation

- Identify officially a body entrusted with the research and innovation function and clarify the scope of its mandate (e.g. ad hoc studies, international good practice benchmarking, evaluations of pilot initiatives, etc.).
- Conduct a number of **ad hoc studies** on specific aspects of the Armenian system.
- Define and apply guidelines for pilots including lessons-learnt phase.
- Increase the analytical capacity of NCET (training plan for staff).
- Collect **international good practice** on the topics currently under strategic reflection in Armenia and do an analysis of the elements of applicability to the Armenian context, including, for instance, on alternative models for preschool management, school income-generating activities, etc.

3.6 Quality assurance and pedagogical norms

- Define and distribute the key responsibilities for quality assurance among the main existing bodies (or set up a new one?), revising as needed their mandate: EIB, NCEDI, regional departments, ANQA.
- Revise the reporting and accountability frameworks in great detail, including on the funds received from the MoESCS.
- Put in place assessment methods for the educational staff recruitment processes.
- Pedagogical guidance: the expected role of the MoESCS in providing the appropriate pedagogical framework (curricula development, teacher training, etc.) is essential. However, it was not the focus of the RED, hence recommendations have not been developed in this area.

Conclusion

Although this Rapid Education Diagnosis (RED) may not present entirely new insights into the challenges of the Armenian education system – challenges that practitioners are likely already aware of, either through experience or intuition – it offers a comprehensive, systematic, data-driven and user-friendly clarification of this knowledge. Broad dissemination of these findings can help foster consensus around the most pressing issues and priorities. Ultimately, however, the real value of RED lies in the hands of policymakers, who, through the consultation and planning processes they choose to adopt, will decide how to engage with, refine and follow up on its recommendations.

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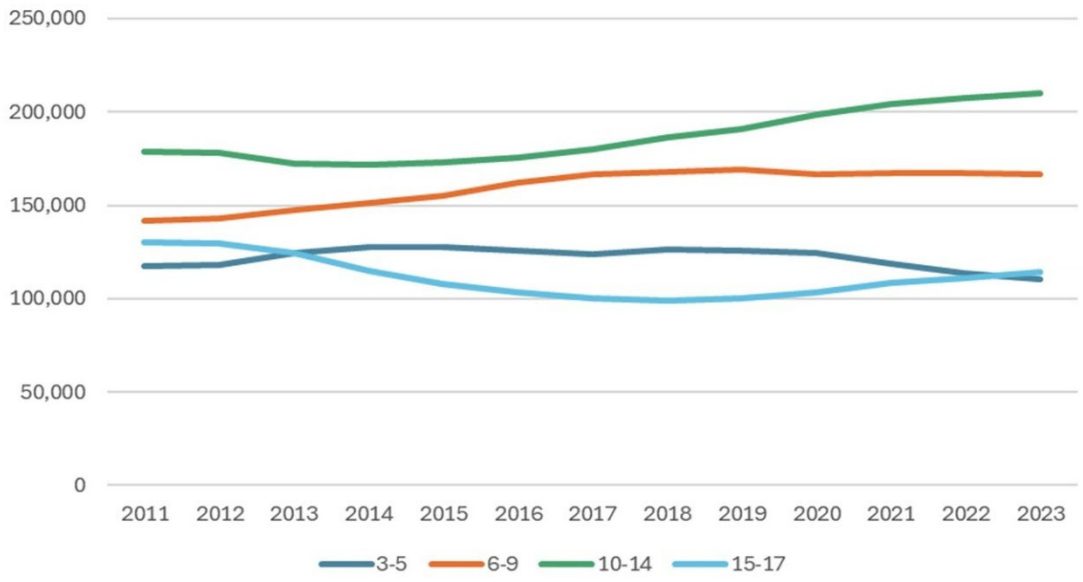
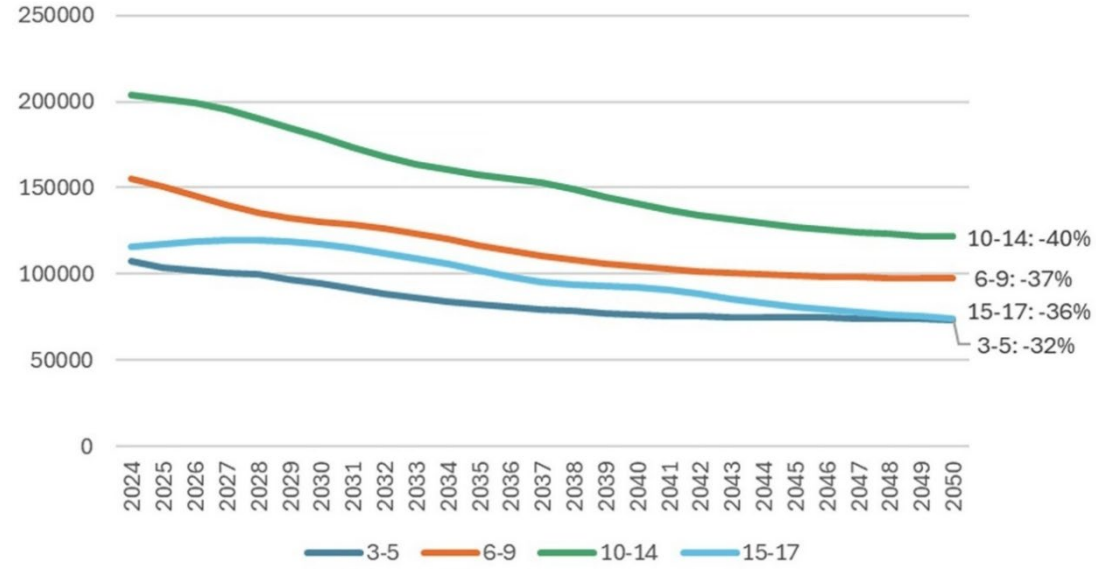
Statistical annexes

Figure 24: Population by school age group, 2011-2023



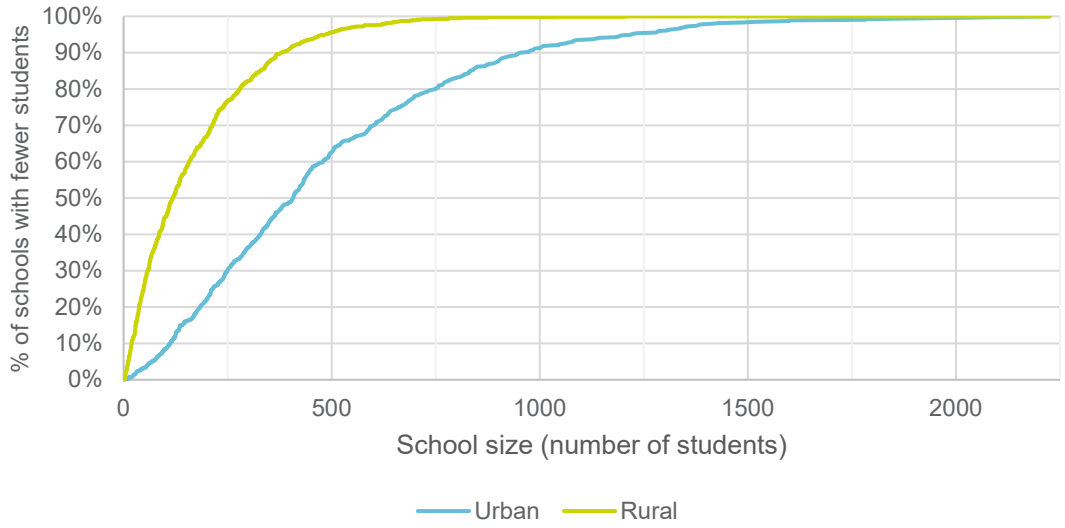
Source: ARMSTAT

Figure 25: Population projections by school age group, 2024-2050



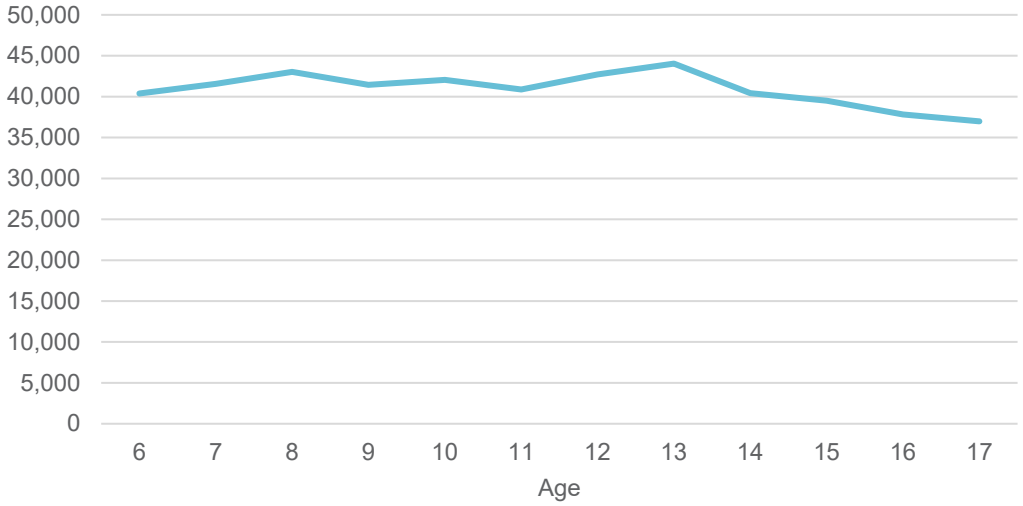
Source: World Population Prospects 2024, UN Population Division

Figure 26: Cumulative distribution of schools by size, urban and rural, 2023-2024



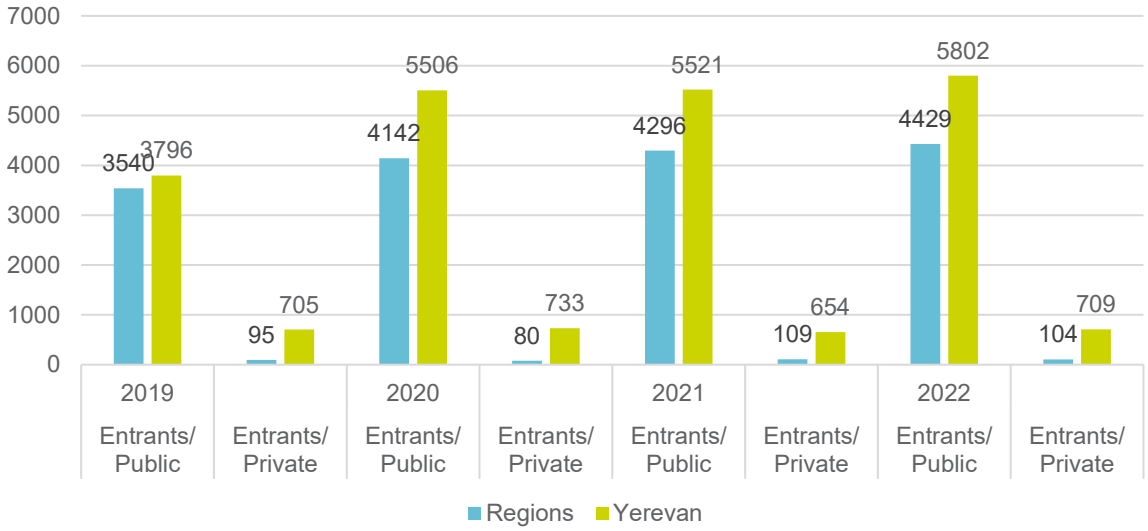
Source: EMIS.

Figure 27: Population estimates by single age, 2024



Source: ARMSTAT

Figure 28: Number of entrants in public and private VET institutions by years in regions and Yerevan



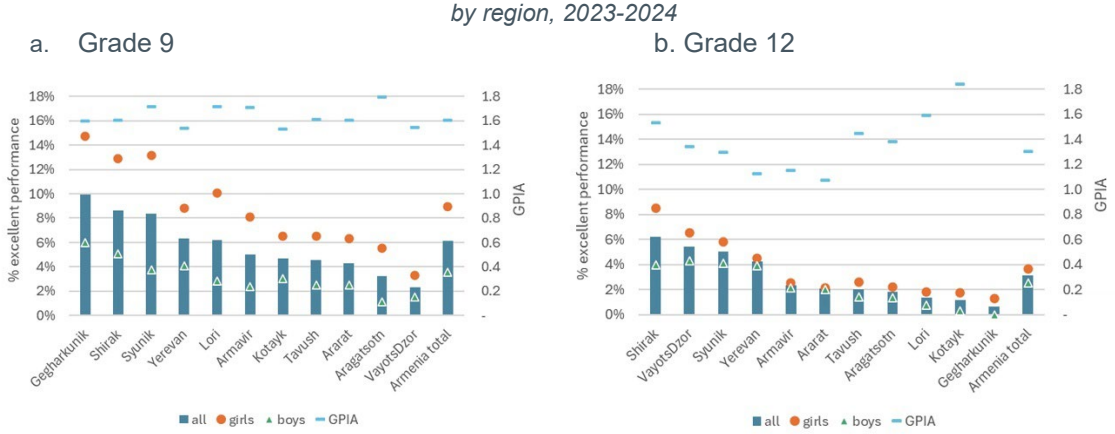
Source: ARMSTAT

Figure 29: Percentage of general education schools by infrastructure condition and availability, by region, 2023-2024

	Good general condition	Water supply	Sewerage	Gas supply	Heating	Hot water
Yerevan	51%	100%	100%	95%	100%	22%
Aragatsotn	35%	93%	88%	49%	55%	18%
Ararat	32%	98%	92%	79%	81%	29%
Armavir	48%	100%	94%	91%	93%	34%
Gegharkunik	31%	91%	86%	72%	64%	25%
Lori	39%	97%	93%	80%	64%	20%
Kotayk	38%	100%	98%	91%	91%	24%
Shirak	40%	96%	93%	59%	68%	40%
Syunik	38%	93%	88%	38%	42%	9%
Vayots Dzor	35%	96%	90%	42%	42%	6%
Tavush	45%	98%	83%	72%	71%	27%

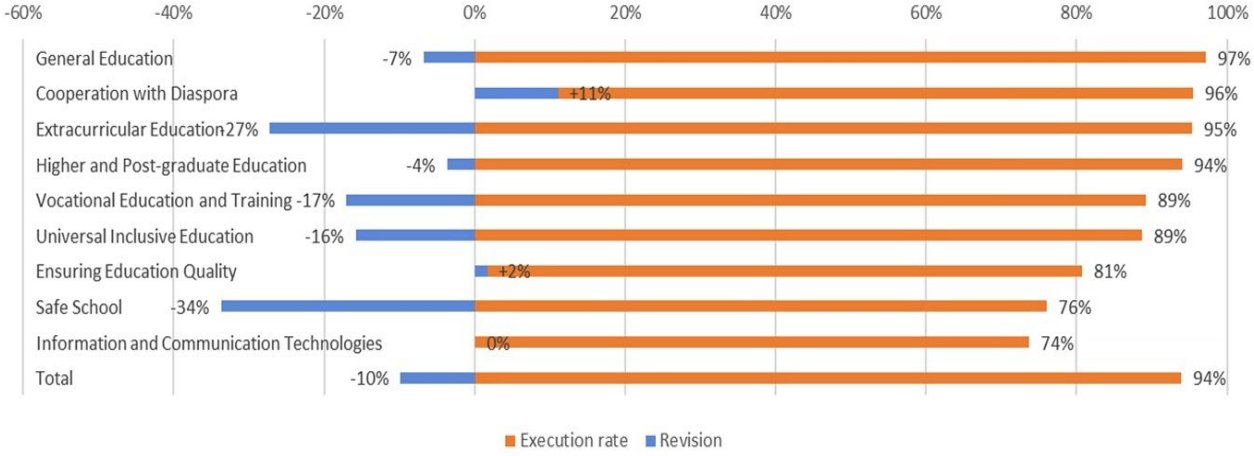
Source: EMIS

Figure 30: a. and b. Percentage of graduates with excellent performance by sex and GPIA, Grades 9 and 12, by region, 2023-2024



Source: EMIS and ETF's calculations

Figure 31: In-year budget revisions and budget execution by programme, FY2023



Source: Ministry of Finance

	Recurrent expenditure				Capital expenditure
	Subsidies	Grants	Social allowances and pensions	Procurement of services and goods	
Vocational Education and Training	0%	0%	77%	0%	22%
Higher and Post-graduate Education	0%	2%	92%	1%	6%
General Education	83%	4%	4%	1%	8%
Extracurricular Education	45%	53%	0%	0%	2%
Safe School	0%	0%	0%	0%	100%
Ensuring Education Quality	0%	8%	51%	10%	31%
Universal Inclusive Education	0%	100%	0%	0%	0%
ICTs	0%	100%	0%	0%	0%
Cooperation with Diaspora	0%	80%	0%	20%	0%

Figure 32: Distribution of education programmes' budgets by economic classification, FY2023
Source: Ministry of Finance.