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# Desk Study:

## The current situation in the area of assessment of learning achievements in the Republic of Tajikistan

**Outcome 1: To strengthen the quality and relevance of competence-based general secondary education and VET for the needs of learners and the labour market**

**Dushanbe - 2023**

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КӮМАКИ ИТТИҲОДИ АВРУПО БА СОҲАҲОИ МАОРИФ ВА МЕҲНАТИ ҶУМҲУРИИ ТОҶИКИСТОН

THE EUROPEAN UNION SUPPORT TO THE EDUCATION AND LABOUR SECTORS OF THE REPUBLIC OF TAJIKISTAN

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**Activity 1.1.3. To support institutional arrangements on quality of education**

**Dushanbe - 2023**

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# List of abbreviation and acronyms

| | |
|---|---|
| AKF | Aga Khan Foundation |
| AWG | Assessment Working Group |
| CBE | Competency-based education |
| CTT | Classical Test Theory |
| CWDs | Children with disabilities |
| EMIS | Education Management Information System |
| EGRA | Early Grade Reading Assessment |
| EU | European Union |
| GPE | Global Partnership for Education |
| IsDB | Islamic Development Bank |
| IRT | Item Response Theory |
| LEG | Local Education Group |
| M&E | Monitoring and Evaluation |
| MtDP | Mid-term development program |
| MoES | Ministry of Education and Science |
| MoU | Memorandum of Understanding |
| NLA | National Learning Assessment |
| NSED | National Strategy for Education Development |
| NTC | National Test Centre |
| OECD | Organization for Economic Cooperation and Development |
| OSI | Open Society Institute |
| PISA | Program for International Student Assessment |
| PBM | Planning, budgeting, and monitoring |
| RT | Republic of Tajikistan |
| RTTI | Republican Teacher Training Institute |
| RWM | Read with me |
| SDGs | Sustainable Development Goals |

| | |
|---|---|
| TT | Teacher training |
| TVET | Technical and Vocational Education and Training |
| TWG | Technical Working Group |
| UNICEF | United Nations Children's Fund |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| USAID | United States Agency for International |
| QESP | Quality Education Support Programme |
| QLP | Quality Learning Project |
| WB | World Bank |

**КӮМАКИ ИТТИҲОДИ АВРУПО БА СОҲАҲОИ МАОРИФ ВА МЕҲНАТИ ҶУМҲУРИИ ТОҶИКИСТОН**

**THE EUROPEAN UNION SUPPORT TO THE EDUCATION AND LABOUR SECTORS OF THE REPUBLIC OF TAJIKISTAN**

# 1. Executive Summary

## 1.1 Goal and objectives

This Desk Study attempted to analyze the current situation in the area of assessment of learning achievements in the Tajikistan Republic, which influences on improvement of the quality of education service delivery.

The main focus of the study is aimed at analyzing two main achievements in this area - the Concept of National Learning Assessment designed and the first National Learning Assessment Study in Tajikistan provided under the Quality Education Support Programme I (QESP I ) funded by the European Commission. The objectives of the desk review include:

1. A short overview of Tajikistan's education development, its legislation, strategies, concepts, institutional structure, and education projects pursuing the aim of promoting education quality in the country.
2. The analysis of the Concept of National Learning Assessment, developed under the Quality Education Support Programme (QESP I) as well as related activities provided under this project.
3. The rationale, objectives, scope, methodology, quality standards, implementation processes, and performance results of the first National Learning Assessment Study in Tajikistan.
4. The institutional structure of assessment.
5. The capacity-building activities delivered and planned for the relevant staff.

The findings of the study can help to get a vision of the education quality mechanisms developed in the country in recent years, the impacts of the previous/ongoing projects and other implementations conducted by the beneficiary institutions in Tajikistan, understanding the issues related to the Concept of National Learning Assessment designed by the QESP 1 and benefit from the lessons learned in this project. Such analysis will enable TAT to fully understand the current state of the art at the national level – identifying strengths and weaknesses and undertaking the necessary preparatory work for the implementation of the project interventions.

## 1.2. Methodology

The content of this study is subject to information and data gathered through the revision of the documents related to Education quality development, its regulation, and legislations created for the last few years as well as discussions of the experts involved in the QESP 1 and web research. Due to the limited resources available officially on the websites on the limitations of the Concept of National Learning Assessment developed under QESP I, narrow data was provided for the review processes in this regard. However, the reports and data reviewed on general information about the Concept itself,

its content and other activities developed under QESP 1 were essential in providing the information required.

**The current desk review used quantitative and qualitative research methods:**

- **Statistics** of general education development in the Republic of Tajikistan were viewed to provide the level of educational progress and its achievement attained in the last few years.

- **Literature review** analyzing data collected from secondary sources: In providing the desk review data from QESP 1, National Learning Assessment Concept developed during the QESP 1, National Strategy for Education Development-2030, reports from other projects on competency-based learning and assessment, policies, strategies and regulation on education quality development were used during the data research.

- **Searching perceptions** of the participants involved during the QESP 1. Using the qualitative research approach in collecting data interviews and discussions with the experts engaged in education were implemented to provide a range of experiences, perceptions, views, and attitudes on the national and international assessments, innovating assessment approaches, promoting competency-based learning in practice and generally supporting education quality development in the country.

- **Experts' opinion.** In addition, the views of the experts who cooperated with QESP 1 in planning, developing, and implementing the national assessment and other components were taken into account in providing recommendations and other required information for this study.

## 1.3. The main aspects of the Desk Review

Quality Education Support Programme 1 established and developed numerous resources and materials for the promotion of education quality in the country including, policy materials and frameworks on curriculum development, guidance on assessment, teacher training and materials for teacher professional development, materials for STEM disciplines, items and approaches for implementing the first national learning assessment. Further activities to enhance education are arranged to be developed by the QESP 2.

**The Concept of National Learning Assessment** was designed to improve Competency-Based Education (CBE) and guide the implementation of the reform in the Republic of Tajikistan. The concept was supported by the Ministry of Education and Science (MoES) and other partners in 2020 but received a suggestion from the

Government to develop it further before approval. The Concept was developed under the QESP 1 funded by the European Commission which aimed to support the development process of the education sector that can prepare citizens for the "world of work" who are able to contribute to the political, economic growth, and social prosperity of the country. The program enhanced the quality of education by developing teaching, learning assessment, education sector management, budgeting, and evaluation. Cooperating with the MoES, its educational institutions, and donors, it provided techniques for effectively implementing activities for In-Service Teacher Training, Learning Assessment, Planning, Budgeting, and Monitoring of the education system in the Republic of Tajikistan.

**The first National Learning Assessment Study**. This review also presented the key activities, limitations, and recommendations from the first National Learning Assessment conducted in 2021 under the QESP 1. It should be noted that the National Learning Assessment created by the EU support, provided a review of the national education quality, demonstrating students' level of competencies in several school subjects. The National Learning Assessment study (NLA) was created based on the method and best example from international practice implemented in many other countries in the world. The study responded to the requirements stated in the NSED 2030 to prepare learners to participate in national and international assessments. Moreover, the study responded to the MoES request, to review students learning outcomes and take further steps to better address their learning needs in the future. In this regard, a framework for the program was designed and the first national learning assessment was delivered by the QESP 1 team. The program contributed to the development of the Learning Assessment Concept approved by the MoES which provides a complete view of the assessment as well as indicates the key benefits of the assessment at various levels of education. The important role of the National Assessment was demonstrated in the concept which assesses students' achievements in the school subjects, providing stakeholders, education policymakers, donors, educators, school managers, teachers, and students with vital information.

QESP 2 financed by the EU will continue contributing to the development of education quality in Tajikistan, modernizing it through competence-based learning, developing an assessment system, and other capacity-building activities. QESP 2 will pay particular attention to ensuring institutional sustainability and dissemination of project results, engaging actively all key counterparts in the project activities. Updating the Concept of National Learning Assessments under the QESP 2 will provide the legal framework to ensure the sustainability of the outcomes beyond the project lifetime.

In addition, as planned, QESP 2 will develop relevant activities that ensure the country's readiness for the PISA 2025 and contribute to innovating the assessment framework using a competence system. It should be noted that there are other international organizations including UNICEF, USAID, World Bank, UNESCO, etc. that cooperate with MoES pursuing common goals to promote the education system using various projects and approaches considering the gaps observed in the country.[12]

# 2. Background of the education development in Tajikistan

## 2.1 Overview of statistics

The education system has developed significantly in the past decade, with the number of education institutions, instructors, and students at each stage of the study. According to EMIS, in 2011 the number of preschool institutions was 494 with 67,8 children growing to 678 institutions with 97,164 children in 2020, and general education institutions increased from 3,791 to 3,920 between 2011- 2020. Though the number of primary education institutions declined from 547 to 312 and public schools from 706 to 430, the general secondary education institutions increased from 2,532 to 3,169. More gymnasia and lyceum ( schools that offer in-depth learning of specific school subjects, for example, language, mathematics, etc.) were created for over ten years and their number grew from 61 and 62 to 75 in both institutions respectively.1

Over the last ten years, the number of teachers increased from 94,6 thousand to 130,5 thousand (53,1 and 77,4 female) out of the 98,4 have higher education (59,5), 6,9 uncompleted high education (6,2), 23,4 (24,0) teachers have specialized secondary education and 1,7 (4,5) general secondary education. Students' number went up to 2,110,3 thousand (1,017,0 female) in 2021 from 1,703,1( 802,0 female) in 2011 in the secondary school. Information about the number of students and educational institutions is reported every year. The education structure is as the following levels:

- Preschool education (ages 3-6, duration 2-3 years)
- Primary education (ages 7-11, duration 4 years)
- Secondary education (12–16 years, duration 5 years)
- Upper secondary or vocational education (ages 17-18, duration 2 -4 years)
- Tertiary education (bachelor's degree, postsecondary diploma, duration 3-4 years)
- Postgraduate education (specialist diploma, master's and doctoral degrees, duration 1-5 years) [1].

## 2.2. National Strategy for Education Development (NSED) 2030 as basis for setting the legislation mechanisms

The main goal of the National Strategy for Education Development (NSED) 2030 is to support the development of the learner's fundamental skills including a basic understanding of literacy, numeracy, and portable or transferable skills, essential for everyone during their lifetime. The strategy states that "the aim of the reforms is to create a system of high-quality education and access to all throughout the lifetime, providing the country's economy with competent workers, appropriate infrastructure and based on modern and innovative technologies". It also states the importance of developing an education system that could be sustainable economically, meet the world's education standards, able to implement international quality assessment mechanisms. At the same time, the strategy requires ensuring that cultural and national identity as well as cultural diversity are respected and valued through learning. It also demonstrates its commitment to conducting the Sustainable Development ( SDGs) 2030 Agenda in the country. NSED-2030 also emphasizes the importance of developing an assessment system in Tajikistan to equip learners to participate in international assessments. For this, it suggests the country participate in the Program for International Student Assessment ( PISA) planned to be implemented in 2025 by the Organization for Economic Cooperation and Development (OECD). [11]

One of the important parts of the NCED 2030 is pursuing SDGs goals, which were approved in September 2015 at the 70th session of the UN General Assembly. The main objectives of the SDGs are sustainable human development and the steps to obtain progress in the field of Education ( SDG 4) in the country. UN with the cooperation of its partners has designed various projects to achieve the SDGs -4 to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. The aims of SDGs-4 are related to Education development, providing quality Education equally for all, considering the environment and facilities for learning in educational institutions at all levels and using strategies that can lead all students to lifelong learning.[13]

To address the targets of SDG 4 the Government of the Republic of Tajikistan implemented national consultation and meetings and conducted a Cluster Office for Tajikistan, Kyrgyzstan, Uzbekistan, and Kazakhstan in February 2017. The participants, including the Ministry of Education and Science, National Statistics Office, partners, representatives of the NGOs, teachers, and researchers are aware of mechanisms for implementing and monitoring Education programs 2030 and SDG-4 targets. Thus, a future action plan was designed, a focal point within the Government and a working group for SDG 4 would be appointed and responsible for this plan.[14] Below are relevant goals and indicators ( Table 1) related to education development that can strengthen the quality of education generally.

**Table 1. Sustainable Development Goals in education (SDG-4) in Tajikistan until 2030**

| # | Brief description of the SDG-4 goal |
|---|---|
| 4.1 | All girls and boys should be able to study and complete the basic education level which can help them obtain efficient learning results. |
| 4.2 | All girls and boys have opportunity to access quality pre-primary education that can prepare them for primary education. |
| 4.3 | All women and men have access to quality technical, tertiary, vocational and university education. |
| 4.4 | Increase the number of youth professionals who have vocational and technical skills |
| 4.5 | Exclude gender issues in education and provide equal access to education in all levels, including vocational training for vulnerable people |
| 4.6 | Support men and women, youth and adults to obtain literacy and numeracy |
| 4.7 | Provide learners with necessary knowledge that enables them to promote sustainable development using education, human rights, cultural appreciation and etc. |
| 4.8 | Provide education facilities and environment that are safe and appropriate for All |
| 4.9 | Increase the number of scholarships for developing countries and specifically for the least developed countries, small islands in developing countries, including African countries. |
| 4.10 | Expand the number of qualified teachers in developing and least developing countries, organising teacher training that can lead to international cooperation further ( UN report). |

Source: NSED, 2020.

Generally, the table above ( Table 1) presents 10 goals designed for the purpose of improving the learning conditions in the country, which directly or indirectly impact the quality of education in the country at the same time.

Research shows that after the implementation of SDG-4 indicators, a lot of progress was observed in the educational development of the country. To monitor the implementation of the SDGs a“ Road Map” was developed in 2016 that involves 37 sections. Also, to view the progress of the SDGs indicators, the Agency of Statistics under the President of the Republic of Tajikistan became a member of the international group and UN Statistical Committee in 2019.

## 2.3 The Institutional Structure of Assessment in Tajikistan

The Education system experiences a lot of challenges with modernizing the learning approaches, assessment, and promoting the quality of education in the country. To address the growing demands for education, the MoES of the Republic of Tajikistan has

put every effort to provide the country with quality and free access to basic education at every level, bring financial stability to education, create networks for professional research work, develop resource-saving technologies in various places, and maintain effective implementation of scientific research work in all the fields.

**Ministry of Education and Science**

The MoES is responsible for developing and introducing new laws and policies to deliver innovative services in the fields of education, technology, science, and other fields. Also, scientific conferences and competitions, training in various sectors, and scientific research work are planned and organized by the departments of the MoES. The department of Science and Innovation under the MoES develops and changes the learning subjects standards to improve the education quality and ensure effective outcomes. This department closely works with teachers, educators, and education group members to learn about the needs of students including CWDs, and respond to the issues in accessing education.

**The MOES Department of Assessment and Monitoring of the Quality of Education** is responsible for the development of the testing programs and methodology for monitoring and evaluating the quality of education, organizing seminars, conferences, and training to identify and solve the issues related to the quality of education and assessment. The quality of education is assessed at all levels of educational institutions in the country every two years .[2]

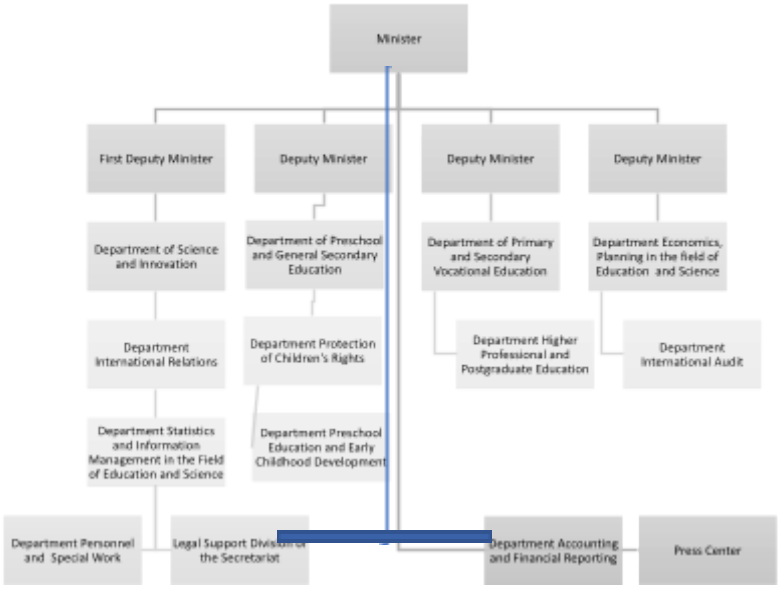
**The Agency for Supervision of the Field of Education and Science** monitors the progress and quality of education in primary, secondary, and higher professional education. Its functions were defined in a Presidential decree in 2020. The agency has responsibility for the certification and accreditation of educational institutions and also includes the licensing of nonstate pre-school and general educational institutions. The agency monitors the implementation of the State Standard of General Education and other applicable laws and regulations and evaluates the delivery of the curriculum; students' progress; assessment and examination systems; and the quality of education in educational institutions. Currently, monitoring and evaluation (M&E) focuses largely on the implementation of subject curricula and the implementation of MoES policy and plans.

Actually, the Agency for Supervision of the field of Education and Science assesses mostly the education entities, not the quality of education.

**The National Testing Center** under the President of the Republic of Tajikistan carries out National assessments of secondary school students, and vocational and higher

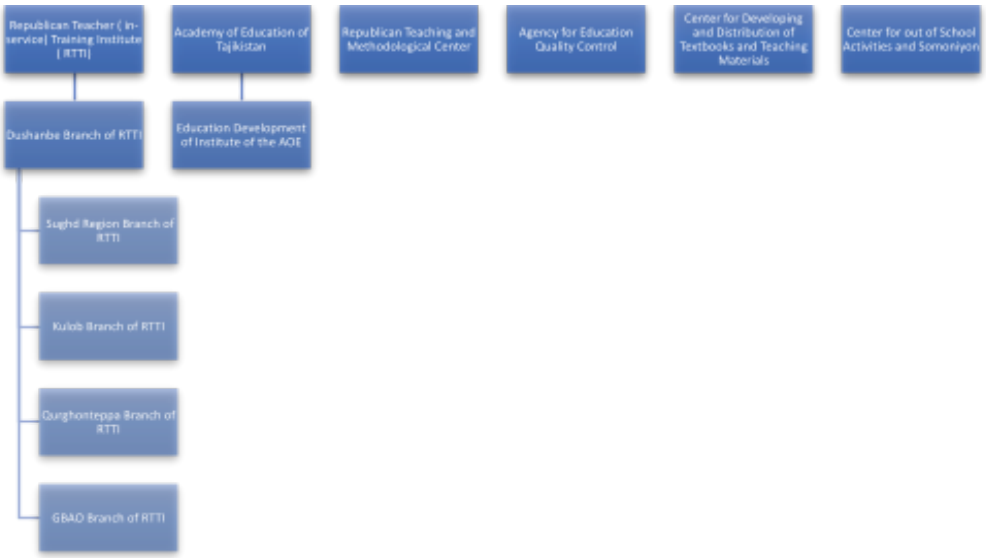
education prospective students, and is responsible for putting in place a unified technology of testing and examination.
The below charts (Charts 1 and 2) present the MoES structure and agencies it cooperates with to assess the quality of Education in developing the system.

**Chart 1. MOES Structure of the Republic of Tajikistan**




Source: Ministry of Education and Science, Tajikistan 2021.[3]

**Chart 2. Agencies under the MoES**




Source of FCG International ltd.[4]

There are agencies, institutes, centers, and academies under the MoES that present new strategies and policies in different fields to respond to the rapid changes required for bringing innovation and development in education, science, technology, economy, and other sectors as required.

**Republican Teacher Training Institute**

Republican Teacher (in-service) Training Institute (RTTI) was established by the Government of the Republic of Tajikistan in order to improve the level of knowledge and skills of teachers in Tajikistan. The Institute annually conducts advanced training courses, taking into account the scientific and technical base and providing qualified specialists both from the city and from the regions of the country. The institute in partnership with national and international organizations implements seminars and training for teachers with the purpose of developing and implementing educational assessment programs as a tool to improve the quality of education and learning outcomes in Tajikistan. Its branches operate not only in Dushanbe but also in Sughd, Kulob, Qurghonteppa, and GBAO.5 The institute is also expected to use materials and training contents of inclusive education.

Academy of Education of Tajikistan. The institute was created by the Government of the Republic of Tajikistan on April 29, 2009. The Academy of Pedagogical Sciences under the Ministry of Education was renamed to the Academy of Education of Tajikistan. The institutes that are part of this academy are as follows: Research Institute of Pedagogical Sciences;

- Republican Institute for Advanced Studies;
- Museum "Maorif" - "Education"
- Republican Methodological Center;
- Center for Information Technology and Communication

The Institute works closely with the other agency of the MOES Education Development of Institute of the AOE which is designed to record and analyze the scientific activities of employees of organizations.[6]

**Republican Teaching and Methodological Center**

This center was established by the Government of the Republic of Tajikistan in 2017. The Training and Methodological Center was transformed into the Republican Training and Methodological Center of the Committee for Emergency Situations and Civil Defence under the Government of the Republic of Tajikistan. The activities of the Republican Educational and Methodological Center are aimed at training and raising the level of knowledge of the leadership, heads of commanding ministries, committees, departments, higher educational institutions, organizations, and specialists in the field of emergency situations and civil defence of the republic. The Republican Educational and Methodological Center consists of an educational and methodological department, a department for working with regional centers and zonal courses, a department for special training, and an economic department.[7] This Center is a potential resource to address inclusive emergency issues.

**The Agency for Education Quality Control under the President of the Republic of Tajikistan:** (hereinafter referred to as the Agency)

The Agency is the central executive body of state power that implements a unified policy of state supervision in the field of education and science of the Republic of Tajikistan and is accountable to the President of the Republic of Tajikistan in its activities. The Agency is guided by the Constitution of the Republic of Tajikistan, normative legal acts of the Republic of Tajikistan, as well as international legal acts recognized by Tajikistan and its regulation. The Agency implements a policy of state supervision in the field of education and science, exercises control over the implementation of regulatory legal acts, states educational standards in educational institutions of the country, the

effectiveness of the implementation of scientific and technical research, the training of specialists and scientific personnel, as well plans process, assesses the organization of the educational programs, the level of quality of knowledge of pupils, students, masters, graduate students, doctoral students, training of specialists and other areas of activity of educational institutions. The Agency implements a system of state control in the field of education in the form of licensing, a comprehensive assessment of educational institutions, management bodies of the field, state certification, and state accreditation of educational institutions.[8]

**Center for Developing and Distribution of Textbooks and Teaching Materials:**

This Center reviews and objectively evaluates manuscripts of textbooks, programs, and other teaching aids, by order of the Minister of Education of the Republic of Tajikistan, groups of experts on learning subjects. The Ministry of Education of the Republic of Tajikistan, on the basis of the new curriculum, draws up programs to develop the publication of textbooks for education institutions at various levels and textbooks for competitions. The author or a group of authors submits the manuscript of the textbook for the competition at a certain time and the Center for the Development, publication, and Distribution of Textbooks reviews and discusses manuscripts of textbooks (the procedure for sending for review and its terms are determined by the Center for the development, publication, and distribution of textbooks under the Ministry of Education of the Republic Tajikistan). Manuscripts of textbooks and other teaching aids that are printed for the first time are sent to an expert subject group for consideration.[9]

**The Centre for Out-of-school Activities** designs extracurricular programs that are different from school or homework tasks. The programs provide learners with the opportunity to practice, experiment, and develop technology, and social and soft skills including children with disabilities.

## 2.4. Understand the existing institutional context and practices

The Education department in the district government provides direct guidance to school principals on policies, laws, and regulations and receives statistics and reports from school principals. The private and public schools are also guided by the education district authorities while providing data about their schools to EMIS.

Pre-primary, primary, and secondary schools in districts and cities of Tajikistan are implemented under the administrative leadership of local executive authorities which is in line with the strategies, policies, and curriculum defined by the laws and MoES.

Schools use annual census forms to provide data collection to EMIS. The information is shared in two forms, technological and non-technological ways. Schools that possess

computers provide the data through census forms via email or portable drives to EMIS central level. Schools, where computers are not available, use paper-based forms to provide the data on the assessment of students, which is sent to the district education department afterward. Every education district department uses computers to enter the data, which is sent to the central team by email or hard drive. Schools provide information about learners' administrative data, their age, gender, enrolment status, health data (for example, immunization records), children with disabilities number, and their special needs. The information about students is usually disaggregated by gender and age. Some information about school facilities is also described, for example about computers, textbooks, the washroom, phone supplies, etc. Information about teachers is also shared, for example, teachers' numbers, qualifications, and assignments they perform. However, broad data about school financial expenditure on teachers' salaries, inclusive education, or other facilities are limited.

The data collected by EMIS on student assessment is mainly used by the state, MoES, the Department of Education in the districts, and the Statistics Agency. The MoES uses the information to improve the education policies, strategies, and learning approaches based on the gaps. Also, using the data the government and MoES distribute grants and funds to schools for resources, teachers allocation to schools, and inclusive education. The education departments of the districts consider the data plan to provide teachers with training. The Statistics Agency needs the information to calculate students' and teachers' numbers in the country. Other participants such as directors of the schools, teachers, parents, or students do not use the data to make any plan related to education. However, if a school needs any data, they shall send an official letter to MoES and ask for the information required. [10]

Moreover, there are national legislation and regulations demonstrating the Government's commitment to enhancing the education quality in the country. The strategies and goals on education, established for the purpose of promoting the quality of education in the Republic of Tajikistan, are provided further.

## 2.5. Partners in promoting Competency-based-education reform in Tajikistan

MoES in cooperation with other international organizations like UNESCO, UNICEF, KFE, and EU plans to promote education quality and improve competency-based learning, developing ICTs in Education and STEM, sustaining teacher training strategy, and providing access to learning facilities based on the student's needs. The projects of the mentioned above organizations also consider inclusive education development through education development targets.[15]

Many projects were involved in developing the CBE reform in the republic of Tajikistan including QESP 1 organized by the EU, the Read with Me ( RWM) project financed by

USAID, Adolescent Competency Framework (ACF), projects designed by UNICEF, the Read2 project by the World Bank, projects created by Open Society Institute ( OSI), Aga Khan Foundation (AKF) etc. [16] It is worth to be mentioned that multiple materials and seminars have been provided by different projects focusing to develop the quality of education as the CBE reform was officially introduced in the country. UNICEF implemented an Active learning project that introduced CBE importance in the workshops for students and teachers of the pedagogical universities, OSI provided materials on critical reading, USAID conducted a Quality Learning Project ( QLP) that developed learning materials for different disciplines, etc. [16]

In addition, several studies were implemented recently to evaluate the effects of the CBE reform in schools. The USAID project RWM conducted a reading assessment in grades 2 and 4 called an Early Grade Reading Assessment (EGRA) in 2014, 2016, 2018, and 2019, WB conducted an analytical analysis to assess the policies used in the education of the Republic of Tajikistan, the University of Central Asia ran a situation analysis to evaluate the materials and the approaches implemented in schools. QESP 1 implemented a national learning assessment in 5 and 11-grade students as contributed to curriculum development activities to assess the effectiveness of their intervention and offered a proposal model that can serve as instruction in developing the curriculum in the future. Islamic Development Bank (IsDB) supported a project in 2021 that aimed to evaluate a new approach to conducting a school-based study. [16]

Moreover, recent actions were taken by partners in cooperation with the MoES to improve the assessment tools and system, particularly at general secondary schools:

**UNICEF** focuses on developing formative and summative assessment tools, through professional development teacher courses under the funded projects of ISDB/ GPE. For this, there was created a working group and a platform for Formative and Summative assessment. The working group has representatives from each of the Institutions responsible for updating the Assessment and education system in the country, including the MoES. The platform presents ideas and samples for teachers to be used in the classrooms using the new way of assessment tools. Access to the platform has only the working group and some parties as the platform is still being developed considering the participants' ideas and recommendations. Once it is approved, all the teachers will get access to the platform and use it during their classes. Though the same purpose is pursued by the USAID Learning Together Activity (LTA) as well, UNICEF develops secondary grades and USAID aims to develop formative assessment in the primary curriculum through professional development courses. Moreover, the two projects intend to cooperate with each other to develop this reform in Tajikistan.

**USAID** Learn Together Activity implemented a study to enhance learners' foundation skills in primary classes for 1–4 grades, focusing on improving students' reading comprehension, critical thinking, and mathematics skills. Cooperating with the MoES, USAID aims to improve students' literacy and numeracy skills, as well as develop students learning generally. This study was implemented at the end of the school year 2022 combining Early Grade Reading Assessment (EGRA), Early Grade Maths Assessment (EGMA), Snapshot of School Management Effectiveness (SSME), and Social Emotional Learning (SEL). The main purpose of the study was to identify the results of the EGRA, EGMA, and SEL as well as learners' gender, language students speak at home, socioeconomic status, and other factors impacting students' study outcomes. Also, teaching quality, and students' access to books, and other learning materials were analyzed.

Collaborating with the MoES and the Assessment Working Group ( AWG), LTA developed the EGRA, EGMA, and SEL tasks, and SSME questionnaires and instruments. In developing the tools and questionnaires for the study, the national curriculum and Global Proficiency Framework were taken into account. The participants were grade 2 and 4 students, representing 80% of schools in Tajikistan. The study involved 178 Tajik and 108 Russian Instruction schools. The study is planned to collect data from schools during the four years, from 2022 to 2025, at the end of each school year.

**Aga Khan Foundation (AKF)** signed the Memorandum of Understanding (MoU) between the Aga Khan Foundation Tajikistan and the National Testing Center under the President of the Republic of Tajikistan (NTC) on November 1, 2022. This cooperation was based on the framework of the global flagship Schools 2030 in Tajikistan aiming to design assessment tools for preschool, primary, and secondary levels considering the national curriculum requirements. The assessment tools developed will be used during the classes by teachers from the targeted schools to assess students' knowledge and gaps that exist in learning.

Collaborating with the NTC experts, AKF organized 2 days of training on the 3rd and 4th of November 2022 on developing assessment tools. The training also aimed to introduce the School's 2030 learning domains and assessment requirements, technical requirements, and sociometric analysis of the developed tools. As a result, 6 assessment tools were drafted for academic domains like Physics, Chemistry, Biology, and Mathematics as well as for non-academic domains in Tajik language, Mathematics, and Science. The developed matrix with all subjects and assessment tools was submitted to Schools 2030 Global partner Oxford and the Assessment Consultant of the NTC. The tools are currently revised by NYC team taking into account the recommendations and feedback received.

**КӮМАКИ ИТТИҲОДИ АВРУПО БА СОҲАҲОИ МАОРИФ ВА МЕҲНАТИ ҶУМҲУРИИ ТОҶИКИСТОН**

**THE EUROPEAN UNION SUPPORT TO THE EDUCATION AND LABOUR SECTORS OF THE REPUBLIC OF TAJIKISTAN**

**Contribution of the International Organization on CBE**

| # | Donors | Activities | Grades and subjects |
|---|---|---|---|
| 1. | USAID | Implemented Early Grade Reading Assessment (EGRA), Early Grade Maths Assessment (EGMA), Snapshot of School Management Effectiveness (SSME), and Social Emotional Learning (SEL), Textbooks and supplementary materials | Primary classes 1-4 grades, Math, Tajik language and Russian language |
| 2. | UNICEF | Develops formative and summative assessment tools, through professional development teacher courses under the funded projects of ISDB/ GPE, supplementary learning materials, teacher guidelines | Secondary classes, Math, Tajik |
| 3. | Aga Khan Foundation | Designs and develops assessment tools for preschool, primary, and secondary levels considering the national curriculum requirements | preschool, primary, and secondary levels, math, Tajik and English |
| 4. | EUD Projects QESP I | Implemented the first national learning assessment in 5 and 11-grade students, contributed to curriculum development activities to assess the effectiveness of their intervention and offered a proposal model to serve as instruction in developing the curriculum in the future, supplementary materials for teachers | Math and Tajik language, 5 and 11 grades |
| 5. | IsDB | Supported a project to evaluate a new approach in conducting a school-based study, Curriculum development | Math and Tajik for the 5 and 8 the grades |

The list of the projects and their efforts evidence that CBE has become more focused and target-oriented by many partners aiming to enhance the education quality that obviously may improve CBE implementation later or soon in the Republic of Tajikistan.

In addition, the Government of the Republic of Tajikistan (GoRT) in collaboration with the MoES will control the intervention of the national and international partners that put efforts to influence the education reform. At the same time, GoRT and MoES will cooperate with the Local Education Group (LEG) as recognized partners to assess the education sector's progress. The number of LEG includes members of civil society and teachers' professional unions who also take important roles in coordination, communication, and monitoring of the institutional capacity. MoES provides reports on the effects of the interventions of the partners, focusing on innovating the reform and implementing various approaches. The Local Education Group (LEG) is supposed to guide the proposed reform priority on competency-based education by monitoring the state schools and institutions in cooperating with the MoES.

To monitor the CBE impact on learning it is recommended to implement several national evaluations regularly, including EGRA, PISA, TIMSS, ICILS, and PIRLS), and the National Learning Assessment (NLA). In addition, assessment of the quality of education, cluster study thematically oriented studies, or assessing teacher professional development in CBE implementation would be essential to identify the impact of the new reform.

# 3. QESP I priority actions

## 3.1 .Objectives

The QESP I project started in February 2017 and was completed in July 2020. The objectives of the program were to develop a modern and practicable continuous professional development structure for teachers to better meet the needs of teachers, considering positive internal experience. The project activities impacted, particularly general secondary education, primary vocational education, and teacher education across the country. The program consisted of two projects, such as the following:

- “Technical Assistance to the Ministry of Education and Science in the areas of In-Service Teacher Training, Learning Assessment, Planning, Budgeting and Monitoring, and Curriculum Development”,
- “Technical Assistance to the Ministry of Labour, Migration, and Employment of Population in the area of in-service teacher training for the initial TVET system”.

The main principles of the NLA indicated the approaches and rules that were considered during the assessment, and are provided below:

- Ø *"The National Learning Assessment study should be taken forward using an integrated and coherent approach with a balanced development of all the basic components".*
- Ø *"The NLA should be efficient and responsive to the current needs of the education system in Tajikistan and provide timely delivery of findings".*
- Ø *"The study should be compliant with relevant international conventions in relation to national assessments".*
- Ø *"The development of the NLA study should be taken forward in line with available resources and within the context of the needs of the education system".*
- Ø *"The NLA study should be delivered, and the results reported without any political or other interference".*

To contribute to the quality of education in the country in general secondary education, the program implemented NLA to measure students' performance in specific subjects at the system level as well as provide general information about teachers, students, and parents' expectations and attitudes towards education in the country. This approach was also helpful in identifying factors impacting students' performance and the education quality generally in Tajikistan. The program is closely cooperated with MoES, NTC, education experts, teachers, and other educational institutions to implement the assessment successfully in Dushanbe. Moreover, the project provided the team with a number of online and on-site training which helped to plan, design, and deliver all the activities, including the two piloting tests and the national assessment study successfully, as was required.[19]

## 3.2. Capacity building activities delivered and planned for the relevant staff

QESP1 cooperated and collaborated with different educational institutions in the country to ensure effective outcomes can be accomplished in the education system. Every project component had attempted to respond to inequalities in education, targeting the impact of the most vulnerable population, specifically addressing children and adults with disabilities needs. Also, to get general information about the way the curriculum and the textbooks are used in Tajikistan schools, QESP Textbook Consultant and Curriculum Consultant visited one of the Dushanbe schools ( School # 15). They got information about the school's organization and visited primary and 11th-grade classes as well as the library of the selected schools. To promote education quality, QESP 1 developed several goals as the following :

- Ø Provide support in developing a modern and competence-based teachers' mechanism that better considers teachers' and education leaders' needs based on

the national experience, which should be piloted and improved for the secondary teachers in the targeted schools.

Ø Provide support in improving the NLAS that responds to the quality standards for the selected levels

Ø Provide support to strengthen the planning, budgeting, and monitoring (PBM) system that could establish a more effective mechanism of distributing resources and monitoring NSED performing

Ø Provide support in developing the curriculum through efficient cooperation and implementing technical support for the targeted subjects and levels.

Ø Short-term accomplishments of the project evaluated and practiced, a framework for evaluating and monitoring the long-term effects of the EU project support in the sector of education

Ø Establish cross-cutting activities aiming to support effective results in other areas

Moreover, the activities mainly impacting education progress in the country were considered the following:

### 1. National Testing Assessment items

QESP 1 partnered with the National Testing Center and provided support in developing the procedure for the capacity-building activities. The project organized the first training for the National Testing Center experts in June 2019 providing instruction on designing items for the subjects of Tajik language and Mathematics for the selected levels. The NTC experts were informed about the taxonomic levels and the mechanism to prepare competence-based items to be assessed. In addition, the staff was provided with necessary materials for training on Classroom Based Assessment that could be used in various other aspects.

### 2. Training on competence-based learning

Teacher training has been recognized as a significant aspect of the National Strategy of Education in Tajikistan until 2020 which needs to be considered in all the development projects in the country. QESP 1 responded to this issue by establishing teacher training, aiming to modernize the Teachers' CPD mechanism, considering the national and district practices that were piloted and developed for the selected schools.

### 3. Professional development courses

NSED and other education policy documents highlighted innovating Teachers' CPD mechanism as a priority for the country. QESP 1 responded to this requirement by creating a number of documents ( strategy and action plan, a framework for teacher competencies, Training Program Development Manual that directs the material

developers to improve the course programs focusing on competence-based approach instructing to implement the competence-based approach in teaching.

### 4. Promotion of CBE and curriculum development

The first National Learning Assessment carried out in 2021 indicates that competency-based education (CBE) still experiences challenges in practice in Tajikistan schools. Though the reform was introduced in the country in 2015 and a lot of improvements have been reported in teaching since then, the experts agree that more time and effort need to be spent embedding the approach more effectively in schools. This transition path of pedagogy is maintained by most of the Local Education Group ( LEG) and Global Partnership for Education ( GPE) and therefore connects the education partners who continue to invest in this concept and ensure the education system fully adapts to this reform. LEG and GPE agree to put efforts into cooperating together to promote 21st-century skills and competencies in light of increasing the quality and equity in the education system of Tajikistan. Learner-centred assessment allows education policy-makers to adapt CBE pedagogy and address students' needs in the study and beyond it. It should be mentioned that modernizing school infrastructure for the purpose of improving quality learning is another concern of the stakeholders that considers each of the learner's needs and interests and can make education equal and accessible for all. Certain objectives were set for effectively delivering the program at the secondary and TVET basic levels to support the development of their learning results.

As mentioned above, CBE has been recognized as an effective reform for developing education quality by the MoES of the Republic of Tajikistan. To develop and strengthen CBE pedagogy in general schools in Tajikistan competency-based learning was introduced in teacher training development per MoES request by the QESP 1 that created and conducted several in-service programs in the country mentioned below:

- Ø "Realization of Competence Approach in Teaching Natural Science and Information Technology;
- Ø Formative Assessment Tools for the Development of Key Competencies of Students in Teaching Languages; and
- Ø Application of the Competency-Based Approach in Teaching for the Teachers of Social Sciences and Humanities Subjects".

The programs aimed to enhance teachers' perception in implementing the modern teaching approach, using new ways of learning, assessment, and interconnecting school subjects in specific lessons. Aiming to strengthen the CBE in a study, the training was organized for the specialists from the Educational and Methodological Centre and RTTI.[17]

# 4. Concept on National Learning Assessment developed under QESP I

## 4.1 Rational

Assessing students' study achievements and progress is vital for the country to identify the progress and general quality of the education system. The assessment data demonstrates students' level of achievements in a specific area, providing education policymakers with data on overall performance levels in education stages. Establishing a system for standardized assessment at the national level would benefit the education sector and society as a whole.

To enhance the education quality in the country the EU project QESP1 attempted to create and develop the Concept on National Learning Assessment that aimed to provide relevant information on the quality of the learning process and students' performance outcomes based on the specific pedagogy reforms. The Concept highlights the importance to involve learners in activities leading to promoting students' competencies and using the methods to assess competency-based skills. Meanwhile, it also recognizes that not all competencies can be tested through exams but through different activities. To effectively implement the competence-based learning reform the state legal documents including National Strategy for Education Development until 2030 highlight the importance of revising the education system taking into account the education standards, school's subject standards, syllabus, textbooks, and other materials for teaching. For this, the method and assessment learning system require to be updated as well.

Therefore, the Concept of National Learning Assessment developed under QESP 1 attempted to provide new approaches and guidelines to the learning assessment systems that could enhance students' higher-order and critical thinking skills as a result. The concept stresses that the effective implementation of the Assessment could be obtained through capacity building of all the relevant stakeholders ( including education managers, policymakers, teacher trainers, etc.), and providing them with assessment literacy training would be imperative. To implement the Concept in practice, the consistent approach to assessment in the national and international examinations as well as reviewing the curriculum and subject textbooks is important. Implementing the international assessment of quality education may provide data on students learning progress which measures the effectiveness of the instructional practice and education policy used in the secondary schools in the country.

In creating the Concept the legislations and strategies related to Education development in Tajikistan were reviewed and taken into account including the Law "On Education" (

confirmed on July 22, 2013, No 1004), National Strategy for Education Development until 2020 ( dated June 30, 2012, No. 334), National Strategy for Education Development of the Republic of Tajikistan, 2030, ( September 29, 2020, No.526) and etc. As it was agreed, assessing students' knowledge and organizing the technology test in the country would be the responsibility of the National Testing Center. At the same time, there are other relevant agencies responsible for supporting the Center in this process, namely- the Academy of Education of Tajikistan, Institute for Education Development of the Academy of Education of Tajikistan named after Abdurahmon Jomi, Republican Teaching and Methodological Center, Center for Development and Publishing of textbooks, Institutes for In-Service Teacher Training, Republican Centers for Additional Education, Republican Center for Information Technology, Center for development of talents, Women's Training Center "Sarvar".

To make the Concept transparent and effective national and international values and technical achievements were considered. Also, supplementary documents as guidelines indicating clear criteria of the Concept were expected to be established after the document confirmation.[14] A key emphasis in this document is placed on best practices in the assessment that support competency-based learning which recognizes that some competencies cannot be assessed through any exams or tests.

QESP I in cooperation with the MoES had contributed to developing and establishing a policy framework for national learning assessment to assess learners' education quality in the secondary school in Tajikistan. The developed policy framework for national learning assessment directs and supports general secondary schools getting ready for the actual national assessment. The policy framework also indicates instructions and responsibilities of the relevant stakeholders at different stages. The MoES provided clear instructions about the process to be taken, what needs to be tested, how the test should be taken, the relevant time to be considered, and whether a working group or task force ideally needs to be involved in implementing the national assessment test.[17]

## 4.2 The objectives, scopes and results of the Concept of the National Learning Assessment

The main objective of the concept was to equip teachers with the guidelines for developing a teaching approach using competence-based learning and assessing students' skills that cannot be measured through summative assessments or examinations. The paper supports teachers in addressing students' learning needs by assessing their competencies and focusing less on summative assessment. At the same time, the Concept requires bringing changes to all kinds of assessments, classroom assessments, any kind of examinations, and national assessments. It also suggests submitting the results of the exams to the education agencies that take responsibility for

the quality of education in the country. If the Concept is used effectively teachers' capacity in assessment can be developed, teachers can avoid sounding like they judge students' progress, the assessment system will be developed, students can have opportunities to evaluate their achievements, it can ensure more effective assessment collection, analysis, and reporting, using the obtained results from national and exam assessments education policymakers can make further changes to develop the system, the developed framework for assessment can ensure fairness and transparency, develop collaborative practice and using regular assessment approaches.

It is expected that the effective using of the reform in practice can influence the education system in the country. At the same time, to implement competency-based learning subject standards, study programs, and textbooks need to be developed. Moreover, some other steps should be taken further: after developing the national assessment system the standards, education programs and curriculum need to be revised as well as the system of assessment and teacher professional development, conduct discussions on students' results to better address students' needs and teaching approaches, create a system for the classroom, examinations, national and international assessment, teachers need to use the results of the assessment efficiently and finally after obtaining the assessment results from the collaboration between teachers, students, and parents need to be on ongoing based.
Based on international practices, the assessment system should be reviewed at all levels in the country. The Concept mentions that assessment needs to be carried out as the following:

- classroom-based assessment
- examinations based assessment
- national assessment
- international assessment

The purpose of implementing the classroom assessment is to check and improve students' competencies, which leads to better learning outcomes. To develop the quality of learning students the Concept suggests involving students in learning, being provided with the study expectations, being able to assess their own learning as well as their peers, get individual support and other instructions for learning.

The components of assessment improving students' learning are the following:

- assessment as an integral part of the teaching-learning process
- summative assessment
- identifying students' learning results in school subjects and curriculum
- monitoring and evaluating learners' progress

Also, the Concept suggests using the following types of assessment to measure student's achievements:

- Diagnostic assessment ( conducted each year at the beginning of the study)
- Formative assessment (an ongoing process that identifies students' progress and analyzes their understanding of the learning materials, as well as developing the materials based on students' needs)
- Summative assessment ( testing students' knowledge and understanding against subject standards and teaching curricula)
- Examinations ( taken after competing grades 9 and 11, this assessment tests students' results and competencies and determines how the competencies influence students' basic and secondary level of education)

In addition, the Concept stresses the importance of implementing National and International Assessments at schools. National assessment can provide vital information about the education system's effectiveness, which informs policymakers about the progress and gaps the system has and determines the national achievement standards in a specific time. The assessment results need to be analyzed and reported, which can influence instructional practice and education policy. The National Concept recognizes that assessment needs to be designed based on the international practices and experience of other countries, at the same time in the context of the country's available resources and students' needs. To deliver the Concept suggests developing the areas of planning and management, preparation of tools and regulations, data collection, preparing and analysing the test results, and reporting the progress of the assessment. After analysing the outcomes of the assessment, the findings should be discussed with the policy-makers and other stakeholders responsible for the education system development. The results will be shared with other relevant parties to identify the progress and gaps in order to further revise the standards, curriculum assessment system, etc.

The International Assessment provides information about the results of the education system, which could be compared to other countries' systems. Meanwhile, the countries participating in the international assessment are supervised by the relevant international organizations. The purposes of participating in the international assessment are monitoring the progress of the education system, determining the factors impacting students' study results (students' learning conditions at school and home, learning processes, etc.), getting opportunities to compare students' achievements of the one country to the other, providing state policy with data collection to develop the system further. It should be mentioned that except for PISA the Republic of Tajikistan set plans to participate in other international assessment programs like TIMSS and PIRLS.[18]

Thus, if the concept is applied in the system it may enhance the education quality, and prepare students for national and international assessments, and after the results are achieved the system can be compared with other countries. However, to implement the Concept in practice the consistent approach to assessment in the national and international examinations as well as reviewing the curriculum and subject textbooks is important. Implementing the international assessment of quality education may provide data on students' learning progress which measures the effectiveness of the instructional practice and education policy used in the secondary schools in the country, revealing the gaps and challenges worth addressing further.

## 4.3 Expectations of the Concept

The Concept provides guidelines to develop the assessment practices of the education system, as well as mentions the results and the expectations the country could obtain as a result of the new reform. It also states that implementing sustainable development and capacity-building programs on assessment for teachers and other stakeholders is imperative for achieving the results mentioned in the Concept. Another significant aspect is supporting close collaboration between curriculum developers, teacher trainers, and experts on assessment, or textbook developers for successful implementation. In addition, for successful implementation of the principles set in the Concept, it is imperative to support the connection between the education system as a whole. It was also suggested that the next achievements are possible to be obtained if the Concept will be implemented in practice effectively:

- Developed resources for assessment literacy
- Teachers get assistance in assessing learners' performance
- Formative assessment practice tools will be provided
- Support with resources for implementing the National Assessment as well as learning materials to be used in the classroom practice
- Support will be provided for the agencies responsible for the test development, and tools for the exam, as well as analyzing the results and reporting them.

In addition, it is worth mentioning that the Concept provides key terms to ensure that the terminology it used would be conceived properly by every stakeholder. [18]

# 5. National Learning Assessment Study

## 5.1. Characteristics of the National Learning Assessment Study

The National Learning Assessment ( NLA) was implemented on April 15-16, 2021 based on the MoES order No. 599 approved on April 9, 2021. The frame was designed by the QESP phase1, “On Implementation of National Research on Assessment of Learning Achievements of Students on Subjects of Tajik Language, Mathematics, Physics, Chemistry, Biology, and Natural Sciences”. The populations engaged in this study were

grade 5 and grade 11 students from the relevant general secondary schools across the country. In defining the population, the study used UNESCO's International Standard Classification of Education ( ISED) 2011 ( UNESCO, 2012). Cooperating with each other, the Ministry of Education and Science ( MoES) and the National Testing Center ( NTC) of the Republic of Tajikistan offered a list of all schools with a number of students in the chosen levels that were used for creating a sampling frame for the study. The data indicated that the target population was 214745 students from grade 5, in 3589 schools, and 117658 in grade 11, in 3105 schools.[19]

Before implementing the national assessment, QESP 1 had planned every step to identify several characteristics vital for NLA. The main characteristics used during the national assessment and the rationale behind selecting them were reported as the following.

1. **Target group of population.** It was important to identify the specific target population whose level of educational achievements would be particularly useful after completing the appropriate level for further consideration. The target study population was students of grades 5 and 11 whose results of the study were vital to be identified for education specialists and policymakers. Grades 5 who just started implementing reading to learning, can indicate which learning skills are lacking, preventing them from developing necessary competencies for study. Defining students' learning difficulties at this stage is significant for education developers, who could design interventions that could impact their studies at an early stage. Assessing students learning at grade 11 is also important to help education policymakers to assess the quality of the education compulsory system of the country and students' readiness for future study and life.

**2. "Sample-based assessment".** While in some cases assessment of students' learning is considered reliable if many students or all learners of those grades take part in the test, in this study it was decided to involve the representative students from schools who could provide relevant findings.

**3. "Competency-based assessment**. The study is considered important to assess student's abilities to use their knowledge and competencies in practice. The task was to identify how well students' specific learning skills are developed and how they are able to solve problems in appropriate situations by using the necessary strategies learned.

**4. "Assessment areas".** In many national assessments, the domain subjects are language and mathematics, while in some countries science subjects are also included. In this study, language, mathematics, and science subjects were assessed. Grade 5 students' Tajik language, mathematics, and science were assessed. In grade 11, additionally, mathematics biology, physics, and chemistry were also included.

**5. Assessing students' progress**. The items ( questions) for the study were selected based on the international practice used successfully in other countries. Though the open-ended questions were fewer ( 20%) than closed-ended questions ( about 60 %) demonstrating that the target for the open-ended questions was not obtained, since the goal was to assess students' competency-based skills in the duration of 30-40 % of the test time. Meanwhile, the study shows that the test results were calculated in two ways. First, the average scores were scaled to an average of 500 with a standard deviation of 100. The second way was to use students' test results, which indicate their knowledge and skills in performing a specific task.[17]

## 5.2. Methodology of the National Learning Assessment

The National Learning Assessment (NLA) research was implemented on April 15-16, 2021 based on the MoES order No. 599 approved on April 9, 2021. The frame was designed by the QESP phase1, "On Implementation of National Research on Assessment of Learning Achievements of Students on Subjects of Tajik Language, Mathematics, Physics, Chemistry, Biology, and Natural Sciences". Participants were from the chosen general secondary schools across the country.[19]

## 5.3. Implementation of the Test

The results of any kind of assessment generally depend on the quality of the instruments created and implemented in the study. Taking this into consideration, the study attempted to carefully control the quality of the items used in every phase conducted. In the first phase, the working group had six days of training (48 hours) on writing items and two days in coding and assessing open-ended questions. During the second phase, the experts assessed the test items and provided feedback and suggestions needed. The important part was evaluating the items indicating students mastering competency skills that are supposed to demonstrate students' ability to critically respond to situations, solve problems, and make decisions in appropriate circumstances. The writers created a significant number of questions based on Bloom's taxonomy to measure students' higher-order thinking skills.[19]

To design and implement the items for the national assessment, a working group consisting of 5–8 specialists from the National Test Center, and teachers from secondary and higher vocational education institutions were involved. Moreover, training for the working group and necessary techniques for developing items, national test theories, and the test development process were organized by the Quality Education Support Program ( QESP) 1. Also, before implementing the main test a number of short tutorial sessions, online seminars, on-site workshops, and meetings were organized to equip the team with the instruction and tips important for the assessment. [19]

Members of the working group participated in training that consisted of phases one and two. The first phase of training was in item writing for 6 days ( 48 hours) and coding and assessing open-ended questions for 2 days for 16 hours. The second phase of training was in assessing the test items, which required providing written feedback and tips for improvement. Also, experts got information to measure the competencies of the students based on the open-ended questions, which demonstrated students' higher-order thinking skills. Though it was expected that more items would be included in the test demonstrating students' thinking skills which could show students' ability to argue and make conclusions, few questions were selected. The reason was many students found it difficult to deal with open-ended questions, the pilot test results indicated. In evaluating items, IATA software was considered the best option. Other software including Lertap, and Classical Test Theory ( CTT) was also used by NTC, and Item Response Theory (IRT) was also used for data analysis. The test items that were used during the National Assessment for the selected subjects are provided below:

**Table 2. Test items**

| Grade 5 | Grade 11 |
|---|---|
| Tajik language – 40 | Tajik language – 60 items |
| Mathematics -52 | Mathematics- 60 items |
| Natural sciences – 50 | Physics – 60 items |
| | Chemistry – 60 items |
| | Biology- 60 items |

**Questionnaires for other participants**

Questionnaires for students, teachers, and parents were also developed based on the previous recommendations that aimed to collect other information about the main variables demonstrating students' academic achievements.

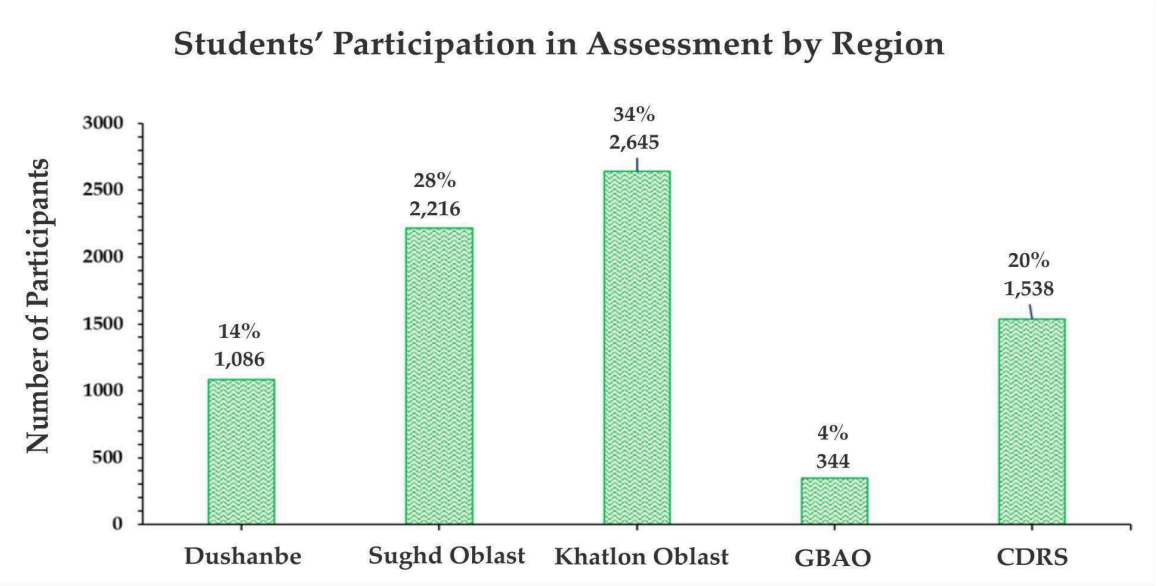
The main variables

- information on the socio-economic status of the learners,
- books they possess at home and their number,
- the way parents have been involved in their children's education,
- students relationships
- students wellbeing

The findings indicate that the selected variables may impact students' academic performance, thus the study considered these variables significant for the study. The questionnaires were the same for all the student levels, teachers, and parents. While 18

questionnaires were presented to students and parents, 14 were offered to teachers. All the questionnaires were closed-ended and most of them were multiple-choice and scaled questions. The questionnaires were considered necessary for determining the challenges and benefits of students' learning and for providing feedback on education methods that could be used for the further development of education in the country. The total number of students participating in the national assessment was 7,829 from both 5 and 11 grades from secondary general schools out of which 4,120 (53%) were boys and 3,709 (47) were girls. The questions were in the Tajik language. Learners participating in the assessment were from 62 cities and districts of the country. The below graph provides more details on students' numbers and locations.

**Chart 1.**




The above chart ( chart 1) indicates that a great number of the students participating in the assessment were from Khatlon Oblast 34% and the lowest number of students were from GBAO, only 4%.

Students were selected from schools with Tajik instruction language by the end of the academic year 2020-2021 and from each school one or two classes were offered participation in the assessment and questionnaires. Learners from the following towns and districts were involved in the study;

- Dushanbe_urban
- Sughd_urban
- Khatlon_urban
- BAMR_urban
- CDRS_urban
- Sughd_rural

- Khatlon_rural
- BAMR_rural
- CDRS_rural

## 5.4. Analysis of the National Learning Assessment

Assessing students' outcomes could demonstrate the effectiveness of teaching and learning methods used by the country. The results of the assessment study help to measure the quality of learning and indicate the areas that require improvement in teaching and learning. Teachers, experts in education, as well as other education practitioners, usually spend much time developing assessment methods that could be used for a specific purpose to measure the progress of teaching approaches of the schools. The important findings in each assessment show the effects of the learning approaches practiced in the schools. The findings can contribute to the development of teaching and learning by:

- Indicating the areas that need the most improvement ( it can show students challenges in a specific subject, location, or skills)
- Demonstrating the best strategies that influence students' learning
- Identifying evidence of the policies promoting education ( or any new policies that influence students learning)
- Highlighting tendencies in performance that need further actions [20]

Before analysing the results of the National Learning Assessment, the following items were designed:

- The scales and scores of the student's assessments were measured using item response theory ( IRT).
- The total points for the scales were set as 500 and 100 as standard deviation, which means that students could get 0- 1000 scores, but the majority would be different between 300 and 700 ( also mean $\pm$ 2 standard error).
- The results were interpreted by demonstrating the mean (average score) with its standard error and students' level of proficiency. Using the mean score, the average level of student proficiency was indicated, which also shows the quality of education in the country.
- Some important factors including learners' different districts, experiences, schools, and conditions of life were taken into consideration.
- The results were compared by gender, location ( urban or rural), different regions, and the language students speak at home.
- The results were divided into levels, 3, 2, 1a, and 1b where 3 indicated the highest level, and 1b the lowest level.[19]

### 5.4.1 Achievement of Grade 5

**The test results for Tajik language** indicate that approximately 42 % of students got 1a level, nearly 26 % achieved level 2, and 13.6% of learners achieved level 3 ( the

highest level). However, above 19% of students ( every fifth student) showed lower than level 1b which means that they do not possess even the basic level and may have obviously serious problems in learning the Tajik language. Regarding gender differences, it shows that more girls have higher levels (43.4 % of girls got levels of 2 and 3) compared to boys (35.3 % of boys reached 2 and 3 levels). Also, comparing the results of the boys and girls from urban areas, girls outperformed boys. Additionally, it was found that students who speak Tajik at home statistically can have better achievement than those who speak other languages. [19]

The test results for Mathematics show that around 45 % of learners reached 1a level or above, 23.6 % reached level 2 and 15% of students achieved level 3, the highest level. However, about 16 % of students reached the 1b level (below the basic level). It can be stated that those who got the 1 b level may probably have serious problems with learning mathematics. In addition, the test results showed that boys' and girls' knowledge is nearly the same in mathematics, though usually, boys achieve better results in this subject than girls in most countries.

The test results for Science demonstrate that most of the students, 42 % achieved level 1a. Approximately 40 % of students reached levels 2 and 3 ( average and the highest level ). On the other hand, nearly 19% of learners ( every fifth student) showed below the basic level, which indicates that these students have serious challenges in understanding science and probably are at risk to continue studying.

### 5.4.2 Achievement of Grade 11

The test results for Tajik language indicate that most of the students, 45% got 1a level and 39% of learners achieved 2 and 3 levels (the highest levels). However, nearly 18 % of learners reached the 1b level, which means lower than basic knowledge. In addition, the results show that girls have better achievement in learning language in comparison to boys, which is not observed in grade 5. At the same time, 10 % less got 1b, and around 10% more reached 2 and 3 levels. Besides, when urban students' results were compared between boys and girls with their peers' results from rural, the difference was between boys from urban who outperformed boys by 35 scores more than those from rural. Also, girls from rural areas outperformed boys from rural areas with 47 scores higher on this test. Moreover, the findings identified that learners speaking at home Tajik get a higher level of achievement than those who speak other languages at home, which is consistent with 5th-grade students as well.

Mathematics test results show that around 87% of students have 1a and above level. Of most of the students, 51% achieved level 1a which indicates a basic level of knowledge, 19.9% of students reached level 2 and 15% achieved the highest level. However, 13% of students reached the 1b level, which is below the basic level. This probably means that this percentage of students has serious challenges in understanding mathematics at this

level. The significant difference between urban and rural students' levels was noted. Both boys' and girls' achievement from urban areas was higher than those of their peers from rural areas.

The test results for Physics demonstrate that 50.4 % of learners achieved 1a level and higher. Almost 30% of learners achieved levels 2 and 3, 19.3% reached level 2 and 11% got to level 3. However, about 19% of students showed a 1a level, which is below the basic level. These students obviously have serious problems in learning and may be at risk of continuing study in the future. Although there are no significant differences in girls' and boys' achievement in physics, more boys got the lowest level. Students' results also show that more students from urban areas have higher levels if compared with rural students. At the same time, the majority of the urban students nearly 48% reached levels 2 and 3 while 27 % of rural learners achieved these levels.

The test results for Chemistry indicate that 55% of students achieved 1a level or above. Almost 19% of learners got levels 2 and 3 which shows that students have lower progress in this subject than in other disciplines. 11.8% of students reached level 2 and only 8% have level 3. 25% of students showed below the basic level (1a). It is worth mentioning that the percentage of students with levels below 1a is greater than in other subjects' tests in Grade 11. The results also showed that girls slightly outperformed boys, but this is perhaps a result of the higher number of girls ( 22%) compared to boys ( 18%). Besides, more boys ( 26.6 %) showed below basic level (1a), results than girls ( 22.9%).
It was also found that students from urban areas have higher levels than students from rural areas. 28% of students from urban achieved 2 and 3 levels, while only 16% of students from rural reached these levels.

**Socio-economic status impact of students to study**

The survey completed by students, teachers, and parents provided information about students' socio-economic status (SES) impact on students learning. The factors that were taken into account were whether students had their own table for learning and room, computer, internet connection, and parents' education level. Students possessing the mentioned items got 1 more point to their overall SES score, and parents' education level added 1–6 points, depending on their level of education. The maximum score of SES was 10 points.

The findings for both of the grades indicate that the SES influences students' study significantly. Though the Grade 11 SES average is noticeably higher than the grade 5

students' SES, it is obvious that students with higher SES are more involved in learning .[19]

## 5.5. QESP 1 Outcomes

The program attempted to achieve the following outcomes by delivering the project components and activities:

- A modern and competence-based education system that effectively meets the needs of teachers and managers, created on regional experiences that were piloted for school teachers in the targeted locations.
- A system developed for National Learning Assessment which was implemented in two different age groups and educational levels (grades 5 and 11).
- Planning, budgeting, and monitoring (PBM) procedure leading to more effective allocation of resources and developed process for implementing monitoring of NSED.
- A strengthened curriculum reform process for secondary education through cooperation and technical support
- The first Concept of National Learning Assessment was established and agreed upon by the MoES on December 30, 2020, though it did not get approval but could serve as an initial document for developing a new concept.

# 6. Limitations

Concept of National Learning Assessment developed under QESP I

The Concept was agreed upon by the World Bank, UNICEF, USAID, Aga Khan Foundations, and EU before it was submitted to the MoES. However, the feedback from the government indicates that some other steps and actions need to be performed before its approval. The following limitations should be considered to developing it:

- the language and terminology used in the concept require more explanations, a list of the glossary should be created
- the paper needs to be designed with more instructions
- more complete document should be created with a smooth procedure and structure

- Definitions of assessment and its terminologies
- Samples of assessment approaches in different disciplines
- Assessment rubrics
- Assessment items and taxonomies
- Appropriate tools for conducting the different kinds of assessment
- The Curriculum needs to be developed based on the CBE
- Textbooks and supplementary materials

- Teacher training. Ensure that teachers are ready to implement the updated curriculum and materials developed.

On the other hand, the Concept of National Learning Assessment developed under QESP I could be used as a starting point for developing the new document.

**Competency-based education reform**

· The interview with the national and international experts as well as the secondary sources reported that CBE reform still needs more time to be developed effectively in the country. Many education experts still struggle to implement and assess competence in practice. Competency-based learning and its vision have been perceived differently by various institutions in the country. Thus, the approach to teaching it must be not the same in different schools and areas in the country as well. On the other hand, MoES suggests creating a more specific approach that will reflect the implementation of CBE in a detailed National Roadmap. The suggested paper will demonstrate the current progress of CBE implementation in Tajikistan, and its gaps, as well as create powerful mechanisms reflecting techniques to implement and monitor the reform, considering the common vision of the stakeholders. However, limited information on this was found in the current desk review.

· There is a limited shared vision of the reform among partners (for instance EU QESP 1, UNICEF, AKF, RWM project, and others.) who are developing competency-based learning materials and frameworks for implementing CE in the Republic of Tajikistan.

· Despite the fact that CBE was introduced in 2015 in some schools in Tajikistan, it is still not completely implemented and practiced in all schools. Not all teachers and schools are aware of CBE reform fully in the country. Some of the teachers have challenges in accessing the publication of the developed materials on this either.

**National Assessment Test**

The test items were designed considering the national assessment practiced tests implemented successfully in other international assessments. However, the number of items indicated that the closed-ended questions were nearly 60% while the open-ended questions contained only 20% of the entire test. This demonstrates that the goal to assess students' competency-based skills for the duration of 30-40% of the test time was not obtained at that stage.

# 7. QESP I recommendations and further steps

The findings of the current desk review indicate that QESP 1 successfully achieved the expected outcomes set by the project. The study designed the first instruments for implementing national assessment to measure the educational progress, gaps, and issues in general secondary education at the selected students' level and viewed the perspective of teachers, students, and parents about the general education school in the country. This assessment was first time introduced in Tajikistan and effectively was implemented in the selected schools. The test items were developed based on the international assessment practice that identified students' level of achievements in the specific school subjects as well as the ability to critically approach the tasks, decision-making skills, and other competencies in solving real-life problems. After developing the curriculum for competency-based learning, the education system of the country and the quality of education is expected to experience critical changes, as it allows students to develop the important skills and competencies vital in the course of life.

However, the desk review highlighted a list of recommendations important to be considered for developing the education quality and the CBE reform in the Republic of Tajikistan.

**Recommendations by the QESP I**

**To improve students' performance in learning**

· Conduct assessments in secondary school more frequently, at least in three to four years, to contribute to increasing the quality of education and improving students' performance on time.
· Measures should be taken to support students who do not speak Tajik at home
· Measures should be taken to encourage boys to be more active in learning
· Measures should be taken to support students from rural areas to enhance learning

**To develop the Concept of National Assessment**

· Collaboration needs to be conducted between partners who work on the same goals
· Partners meeting or partners could be invited to the events organized (workshops, seminars, etc.)
· Sharing openly the documents to inform others about what has been done so as not to overlap the further actions
· Provide feedback on time
· Close collaboration of the partners with the MoES to make things clear, some terminology in English doesn't fit the Tajik translation
· Books need to be revised considering CBE approaches
· To develop the Concept further, more collaboration needs to be conducted with partners who plan to contribute to it in the future
· Not overlap the work already done by others

**Recommendations by the partners**

The partners working on the CBE reform and Assessment development in the Republic of Tajikistan offer to review further steps to ensure that competency-based education is embedded and effectively practiced in the future. For this, the following approaches are recommended to be taken into account:

- **Ensure teachers' understanding of the reform**

Ensure that the developed materials and documents received by the teachers are well understood. For instance, the definition of competency and competence, theories and frameworks developed for implementing the CBE, the competencies and skills are distinguished as required, providing meta subject or key competencies examples as well as subject-specific competencies are provided with the examples and etc.

- **Curriculum development**

The current curriculum needs to be changed first to respond to CBE, and the Assessment system needs to be updated based on the reform. Also, the consistency and cohesion of the terminology, different messages, glossary, and suggestions made the reform not consistent, people understand the reform differently. The same philosophy or framework needs to be designed to develop it.

- **Textbooks and supplementary materials**

The textbook should be in line with the CBE approaches and techniques. After developing the curriculum and the assessment approaches, new books and supplementary materials would be recommended that should also respond to the CBE support.

- **Framework of the CBE**

A framework with guidance needs to be developed to assist teachers in teaching based on CBE. The paper can serve as guidance for education specialists as well as direct those who have a different perception of this reform.

- **Monitoring and evaluation of the lessons to ensure the reform works effectively as planned**

After applying the new curriculum, textbooks with supplementary materials, and the framework for CBE, it would be desirable to monitor students' progress to ensure the new approaches are effectively applied. In case gaps and challenges are observed, new approaches need to be identified.

- **Make other interventions based on the gaps observed**

After identifying the gaps and challenges, new interventions need to be performed to address the issues and to further develop the system if required.

# 8. Main findings in situation analysis

The NSED 2030 defines the assessment of learning outcomes as one of the most important problems of the education system, the solution of which will ensure the quality of education.

The national strategy sets out a number of objectives that reflect existing challenges in the area of learning assessment. In particular, one of the priority reform measures 4.2.8.

It is the introduction of an effective system and institutional mechanisms for assessing the quality of education based on a competency-based approach. In order to make evidence-based decisions and manage/maintain the quality of education, it is necessary to develop national frameworks, guidance documents, and tools for various types of assessment and conduct National Learning Assessments (NLA) based on national standards.
This formulation of the problem is associated with a number of existing shortcomings in the field of learning assessment and examinations in Tajikistan. In particular:

1. The current system of assessment and examinations is mainly aimed at testing the acquired knowledge of the student. Moreover, the teaching focuses on the content that will be included in the exams. As a result, other important aspects of learning are often neglected, leaving no time in the classroom for "authentic" learning focused on the individual aspects of each child's development. Preparing for exams/tests overburdens both students and teachers and becomes a central activity in the classroom.

2. Assessment is not focused on the development of competencies and relies on the determination of the student's ability to memorize knowledge. Students memorize facts and information through constant repetition/exploration of factual knowledge. Unfortunately, learned knowledge is usually forgotten immediately after students complete the testing/exam process.

3. There is no formative assessment in the classroom (just in pilot schools), which involves systematic monitoring and providing feedback to students to determine the strengths and weaknesses of each student's learning. Therefore, the assessment does not provide students with good opportunities to constantly and systematically address their weaknesses. The tests are also intended to compare a student's level with that of their peers, but not to ascertain the extent to which a student has progressed or whether students have improved their own performance.

4. There are no clear criteria (standards) for assessment of student performance, and in particular, competency-based standards.

5. Since the level of achievement of higher-order learning and thinking skills is tested very little or not at all, students tend to show little interest in developing these learning and thinking skills.

6. There is no approach to developing learning-to-learn skills as one of the main 21st-century meta-competences.

7. Since only the questions in the textbooks can be checked during exams, students most often read only the textbooks. Thus, the education system is textbook-oriented rather than curriculum-oriented.

8. The student's learning motivation and his/her individual differences are not taken into account.

9. One of the serious problems in assessing the quality of education is the outdated 5-point assessment grading system, which does not allow for an objective and differentiated assessment of the progress in a student's learning. The objectivity of assessment is also affected by the lack of development and systematic use of criteria for assessing student achievement.

10. The importance of using assessment results for informed decision-making and implementation of reforms at all levels of education should be emphasized. School-based monitoring and evaluation activities are not provided at school to analyze the learners' needs for improvement in teaching and learning. Unfortunately, the national assessment system has not yet been created, although there is already experience in its implementation.

11. Tajikistan just started the preparation of participating in international educational programs for assessing learning outcomes.

12. The methodology of formative assessment has not yet been developed to become part of the practice of teachers on a large scale, and is not reflected in teacher training and professional development programs.

# 9. Recommendations on institutional arrangements for quality of education and human resource planning

## 9.1. Policy

Policy for building an effective system for monitoring and evaluation of the quality of learning assessment is aimed at supporting the development of assessment practice at all levels of the education system and is closely related to the reform of the national curriculum and the new generation of competence-based curriculum and assessment standards that it will contain.

## 9.2. Structure and institutions

The general management and supervision of the implementation of the monitoring and evaluation of the quality of learning assessment is the responsibility of the Ministry of Education and Science and the Agency for Education Quality Control.

The National Testing Center under the President of the Republic of Tajikistan carries out National assessments of secondary school students, and vocational and higher education prospective students and is responsible for putting in place a unified technology of testing. PISA International Assessment provided by PISA National Center functioned under the NTC.

The agencies are supported in this role by the following MoES' affiliates:

- The Academy of Education of Tajikistan
- Institute for Education Development of the Academy of Education of Tajikistan, named after Abdurahmon Jomi
- Republican Teaching and Methodological Center

The stakeholders could include the state organizations, non-governmental and donor organizations:

- Center for Development and Publishing of textbooks
- Institutes for In-Service Teacher Training
- Republican Centers for Additional Education
- Republican Center for Information Technology
- Center for development of talents
- Women's Training Center "Sarvar"
- EUD Projects (QESP I)
- UNICEF
- UNESCO
- USAID
- ISDB

## 9.3. Responsibilities for monitoring and assessment at different levels of management

Ways to manage assessment at different levels of education management include:
• External assessment (state exams and monitoring)
• Internal assessment (intra-school summative assessment, monitoring)

**Monitoring the quality of education**

Monitoring the quality of education means systematic, standardized observation of:
• the state of education and the dynamics of changes in its results,
• conditions for carrying out educational activities,
• student population,
• academic and extracurricular achievements of students,
• professional achievements of graduates of organizations engaged in educational activities,
• the state of the network of organizations carrying out educational activities.

State examinations and in-school assessments have different purposes, procedures, and consequences, and in many jurisdictions, the two activities are kept strictly separate. However, there are ways in which aspects of external and internal evaluation can be combined to improve fairness, efficiency, or effectiveness:

• The school component can improve the validity of state examinations by aligning curriculum and assessment and assessing student learning outcomes that are not measurable using an external examination format.
• School-based assessment requires teachers to evaluate the work of their students and usually involves collaboration between teachers and school management to help ensure that assessment criteria are comparable.
• In the case of public examinations, the relationship between external and internal assessments can take different forms. Teachers may suggest exam questions or participate in the assessment of their students' assessment results. More generally, external and internal assessments remain independent processes, with each student's external and internal assessment scores combined to determine the final grade.

## 9.4. Capacity building mechanisms

The successful mechanism for increasing the quality of learning assessment will only be enabled through capacity building across all stakeholders. The development of a strong understanding of assessment, in all its forms, will focus on teachers, students, and parents but will also include school, district, and regional managers, teacher trainers as well as national policy-makers. This focus on the professional development of assessment literacy for relevant stakeholders at all levels of the system will be essential. However, without sustained professional development for teachers and associated capacity-building programs on assessment for all relevant stakeholders, it will not be possible to achieve the desired results that are set out in this paper. Successful implementation will also be dependent on effective collaboration between curriculum developers, teacher trainers, assessment specialists, and textbook developers.

As a result of capacity-building activities, the following achievements can be obtained:

- Professional development resources to support assessment literacy across a range of stakeholders
- Support for teachers coming to summative assessment judgments of student performance (including grading)
- Tools to support formative assessment practice, including annotated examples of student work.
- Resources to support the implementation of the National Assessment, including material to improve classroom practice in areas identified as requiring support.
- Support for agencies involved in the development of exam/test items, assessment tools, analysis of exam/test outcomes, and preparation of reports.

## 9.5. Role of implementation of national and international assessment

International benchmarking studies of educational quality were developed as a tool to reveal the effectiveness of educational systems in different countries and to facilitate decision-making and reform based on the findings.

When assessing educational achievements, three main tasks can be distinguished:

a. obtaining information about the state of students' educational achievements;
b. identifying trends in changes in the state of educational achievements;
c. identification of factors influencing the level of educational achievements.

Using the results of national and international assessments is an important stage in the development of education in Tajikistan. National and international assessments are important for:

- General analysis of the education system and identification of needs and achievements
- Education policy adjustments
- Preparation of education reform program and curriculum
- Discussing results with stakeholders
- Introduction of educational innovations
- Improvements to the resource base
- Improving the system of training and professional development of teachers

An international assessment study (PISA) will allow the Republic of Tajikistan to determine both existing achievements and shortcomings in the educational system.
The relevance of participation in the system of international monitoring of the quality of general education is due to the following factors:

• the need to obtain objective information about the quality of general education in the country to increase the competitiveness of education at the international level;
• the need to master modern technologies for monitoring research into the quality of education to increase the objectivity and pedagogical effectiveness of research conducted at the national level.

As for many countries, for Tajikistan, these results will encourage education policymakers to rethink their strategies and invest more in certain areas of education.

The PISA survey will also provide insight into the future by providing reliable information on whether Tajikistan's young people are ready to fully participate in improving the country's national well-being.

## 9.6. Mechanisms for using assessment results in the classroom and at school

The most important purpose of assessment is to improve student learning. Assessment is an important tool for developing curriculum and instructional approaches to meet student needs.

Ways to use assessment data in the classroom (for example):

- *Plan an individualized educational intervention.*
- *Develop daily teaching strategies.*

- *Define new goals for students and the teacher himself.*
- *Monitor student progress and teaching productivity.*
- *Find gaps in professional development and improve.*

Ways to use grade-level assessment data:

- *Determining the percentage of success by class, by teacher, by subject, by student*
- *Determination of the percentage of learning by class, by teacher, by subject, by student*
- *Determination of the dynamics of academic performance over the past three years*

In-school assessment is a comprehensive, systematic, continuous, diagnostic, and integrative assessment procedure carried out by the teacher.

**How should assessment results be used by teachers?**

- *Assessment results are used to improve individual student performance.*
- *Student assessment allows educators to measure the effectiveness of their teaching by linking student performance to specific learning goals. As a result, teachers can reinforce effective teaching methods in their teaching activities and revise ineffective ones.*

**How should assessment results be used at the school level?**

School-based assessment has a number of important characteristics that distinguish it from other forms of assessment, as outlined below.

It involves teachers from start to finish, from planning the assessment program to defining and/or designing appropriate assessment tasks through to making value judgments. This allows you to collect a range of samples of student performance over a period of time. This is done in a regular classroom.

Assessment is administered by the student's own teacher, and students are more actively involved in the assessment process, especially if self-and/or peer assessment is used in conjunction with teacher assessment.

Assessment encourages ongoing assessment and adjustment of the teaching and learning program. It also complements other forms of assessment, including external examination.

Since education is the foundation on which national development growth rests, it is necessary to systematically evaluate student performance and take it into account when making decisions to improve the quality of education in schools. This is because

assessing student learning outcomes is central to realizing the goals of education in any economy.

**Why are assessment results important?**

Evaluation results provide critical evidence on which funding requests, curriculum changes, faculty rethinks, and more are based. Disappointing (negative) assessment results can have a positive effect when they are used to improving learning.
It is given at the end of instruction to determine how well students have mastered the lesson and to measure how successful students are in achieving learning objectives and achieving intended learning outcomes.

Assessment results help teachers determine not only grades but also areas of improvement in teaching. This information can be useful for teachers and schools to clarify what needs to be revised, and what needs to be improved in the entire teaching and learning process.

## 9.7. Assessment management

The assessment approach reflected in the new National Concept of Quality of Learning Assessment is closely related to the new National Curriculum framework, especially in the field of in-school assessment. Without a new Curriculum and newly set standards, it will not be possible to develop the tools (tools) required to assess students' performance in the curriculum. Therefore, in order to ensure that the data obtained as a result of the evaluation activity is authentic and reliable, the parties who prepare the subject curricula and the evaluation should be organized together.
Also, it should be noted that without implementing serious reforms and extensive programs related to teacher training, neither standards nor curriculum nor desirable results can be expected in the field of evaluation. Close cooperation between the parties preparing the curriculum, teacher training institutions, and assessment experts is a prerequisite for successful reforms in the general education of the Tajikistan Republic.

The following achievements are expected to be achieved as a result of the implementation of the National Concept of Quality of Learning Assessment:

1. A long-term strategy will be developed for reforming the system of assessment and examinations in education, new mechanisms will be created in this area, and their activities will be coordinated from a single position;
2. Appropriate guidelines for the creation and application of the methodology, evaluation standards, and means of conducting intra-school and national evaluations in the educational system will be prepared, and this activity will be linked with the curriculum reform;

3. A new system of evaluating student achievements will be created, a new monitoring service will be organized in the education system, a centralized final exam will be provided for the transition from the general education level to the professional level;
4. For the national assessment, guidelines will be prepared that provide for uniform normative requirements for educational levels, attestation procedures;
5. Monitoring of the state standards of education will be carried out through the evaluation of the learning results achieved by the students in the national assessment;
6. For determining the content of education and developing a new result-oriented curriculum, the main learning outcomes will be determined, research will be conducted in the direction of the appropriateness of the competency-based approach;
7. The implementation and management of the national assessment will be monitored, the results will be analysed and model reports and feedback systems will be prepared based on the reporting procedures that will be logically justified;
8. In order to carry out the assessment, teacher training and education will be organized, and relevant reports will be prepared;
9. Based on normative requirements for international assessment, attestation procedures, and guidelines, the program of international assessment of students and other programs will be implemented in the country, relations with domestic and international institutions operating in the field of assessment will be established, and information exchange will be ensured.

## 9.8 Recommendations on an institutional structure and a proposal on staff and other resources for the MoES

Needs assessment results: The MOES capacity of management to use learning assessment data is a major challenge, because of the lack of data on student and teacher performance and the low level of collecting the information and data analysis skills.
During the survey, MOES officials pointed out, that there is a very restricted assessment data analysis approach in planning. The capacity of education managers to use learning assessment in management still needs improvement.

They do have not a good understanding of the role of learning assessment data and how to use it for improving teaching and learning, and there is an urgent need for capacity building and awareness raising for education managers at all levels, so they are able to do better advocacy.
The institutional and capacity-building analysis of the needs of the MOES staff shows that better assessment practices are vital to providing ongoing collecting evidence on the effectiveness of learning and teaching in the schools. Regular monitoring is needed of all programs, teaching and learning methods, curricula, resources, facilities, and

administrative structures. Performing many of these assessment functions in MOES is missing or needs to be enhanced. It is currently very difficult to assess the efficiency and effectiveness of the education sector, as the system of collecting information and data analysis is still based on formal indicators of school effectiveness. In order to collect and analyse the student and teacher performance the MOES staff should perform several functions including developing the indicators according to the current needs analysis, advising schools and teachers on development according to the policy on assessment and results of the assessment, coordinating schools, advising on the curriculum and assessment.

**Recommendations**: We suggested that the Department of Assessment and Monitoring of the Quality of Education be given responsibility for quality assurance and monitoring outcomes. The ministry function in the assessment area needs to be clearly defined as the assessment of learning, teaching, and overall school management. There should be long-term planning and specific training on learning assessment for education managers. Capacity building may include professional training in data analytics and visualization software. It is crucial for the staff to have skills in collecting data (especially ICT-based) and using it to make changes to the curriculum, assessments, and other aspects of the CBE program.

Statistical and analytical skills are essential in monitoring and evaluation. These skills enable the monitoring and evaluation process to be more accurate and efficient. Statistical techniques can be used to analyse data and identify factors that influence the quality of teaching and learning as well as the trends in the learning process, while analytical skills are used to interpret the data and draw conclusions.
One of the important tasks is evidence-based decision-making facilitated by EMIS at all levels of education. Based on EMIS various processes and methods for monitoring (such as regular input and output data gathering and review, participatory monitoring, and process monitoring) and data evaluation (including impact evaluation and thematic, surveys, etc) should be used.

Better cooperation between NTC and MOES is the crucial point in identifying the advantages and disadvantages of students' learning and cooperation in providing the International learning assessment studies (as PISA and others in the future). National and International learning assessment results should be carefully analyzed and used in decision-making. The MOES should systematically organize the collection of specific data to be assessed, indicating the roles and responsibilities of the main stakeholders. It ensures that relevant progress and performance information is collected processed and analyzed on a regular basis to allow for real-time, evidence-based decision-making.

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