Education Sector Plan (ESP) of Uzbekistan 2019-2023

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
BOT	Build-Operate-and Transfer
BOO	Build-Own-Operate
BOOT	Build-Own-Operate-Transfer
BOLT	Build-Operate-Lease-Transfer
BR	Budget Request
CAL	Computer Aided Learning
CIS	Commonwealth of Independent States
CPE	Centre for Professional Education
CPI	Consumer Price Index
CWSN	Children with Special Needs
CWD	Children with Disability
DBFO	Design-Build, Finance and Operate
DP	Development Partner
DRR	Disaster Risk Reduction
ECA	Europe and Central Asia
ECCE	Early Childhood Care and Education
ECD	Early Childhood Development
ECE	Early Childhood Education
EFA	Education for All
ELDS	Early Learning and Development Standards
EMIS	Education Management and Information System
ESA	Education Sector Analysis
ESD	Education for Sustainable Development
ESP	Education Sector Plan
ESPDG	Education Sector Plan Development Grant
FDI	Foreign Direct Investment
FGD	Focus Group Discussion
GDF	Global Development Finance
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
GIZ	Gesellschaft für internationale Zusammenarbeit (German Development Cooperation)
GNI	Gross National Income
GoU	Government of Uzbekistan
GPE	Global Partnership for Education (formerly known as EFA-FTI)
GRP	Gross Regional Product
GSE	General Secondary Education
HDI	Human Development Index
HEI	Higher Education Institution(s)
HRBAP	Human-Rights Based Approach to Programming
ICT	Information and Communication Technology
IFs	International Futures Global Forecasting Model
IMF	International Monetary Fund
INSET	In-service Education and Training
ISCED	International Standard Classification of Education
KAMOLOT	Youth Union of Uzbekistan
KOICA	Korean International Cooperation Agency
KPI	Key Performance Indicator
LDO	Lease-Develop-Operate

LEG	Local Education Group
LMIC	Lower-Middle Income Country
LRPS	Request for Proposal for Services (UNICEF)
MAPS	Mainstreaming, Acceleration and Policy Support
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MELQO	Measuring Early Learning Quality and Outcomes
MELE	Measure of Early Learning Environments
MICS	Multiple Indicator Cluster Survey
MODEL	Measure of Development and Early Learning
MoEc	Ministry of Economy
MoELR	Ministry of Employment and Labour Relations (previously MoLSP)
MoF	Ministry of Finance
MoH	Ministry of Health
MoHSSE	Ministry of Higher and Secondary Specialised Education
MoLSP	Ministry of Labour and Social Protection (now MoELR)
MoPE	Ministry of Public Education
MoPSE	Ministry of Preschool Education
MTSP	Mid-Term Strategic Plan
NALOPSG	National Assessment of Learning Outcomes of Primary School Graduates
NAS	National Assessment Syestem
NCF	National Curriculum Framework
NER	Net Enrollment Ratio
NGO	Non-Governmental Organization
NPPT	National Programme on Personnel Training
NQF	National Qualifications Framework
OECD	Organisation for Economic Co-operation and Development
OOSC	Out-of-School Children
PISA	Programme for International Student Assessment
PD	Presidential Decree
PPP	Purchasing Power Parity
PPP	Public-Private Partnership
PTR	Pupil :Teacher Ratio
QBE	Quality Basic Education
REC	Republican Education Centre
RFW	Results Framework (GPE)
ROT	Rehabilitate-Operate-Transfer
SABER	Systems Approach for Better Education Results (World Bank)
SDG	Sustainable Development Goals
SEN	Special Educational Needs
SFAI	School Fees Abolition Initiative
SISEQ	State Inspectorate for the Supervision of Education Quality
SIB	Social Impact Bond
SIMEX	Simulation Exercise
SRIPS	(Uzbek) Scientific Research Institute of Pedagogical Science
PE (FORMER SSPE)	Secondary Specialised Professional Education
STC	State Testing Centre
TA	Technical Assistance
TBD	To be Decided
TIMSS	Trends in International Mathematics and Science Study
TLM	Teaching Learning Materials
TOC	Theory of Change
ToR	Terms of Reference

TVET	Technical and Vocational Education and Training
UFRD	Uzbeksitan Fund for Reconstruction and Development
UIS	UNESCO Institute for Statistics
UNDAF	United Nations Development Assistance Framework
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
UNRC	United Nations Resource Centre
USD	US Dollar
UZS	Uzbekistan Som
WB	World Bank
WASH	Water, Sanitation and Hygeine
WDI	World Development Indicators

1 Introduction

The Government of Uzbekistan (GOU) has prepared this five-year Education Sector Plan (ESP) for the period 2019-2023. The previous Education Sector Plan 2013–2017 was generally recognised as the first long-term plan developed in Uzbekistan with the extensive engagement of a wide range of stakeholders and development partners[1]. The first ESP defined long-term goals and objectives for the sector, thus providing a strategic vision for developing the education sector in the country. The first ESP was also instrumental in facilitating the GoU to access to global opportunities in terms of funding and engagement with international community. The Global Partnership for Education (GPE) grant of USD 49.9 million, allocated originally for the period 2014-2018 and further extended till mid-2019, is managed by the World Bank through the "Improving Pre-primary and General Secondary Education Project". The project aims to: (1) Improve access to quality early childhood education (ECE) opportunities; (2) improve the conditions for better learning outcomes in general secondary schools; and (3) strengthen the capacity to monitor the education system.

The country and global context has changed drastically since the development of first ESP. With the first ESP period of 2013-2017 ended in 2017, the GoU and the Local Education Group (LEG) decided to take the opportunity to develop a new ESP for the period 2018-2022[2] to reflect the changing context and priorities in education sector in the country. As the second ESP was prepared and finalized towards the last quarter of 2018, the GoU has decided to change the ESP period from 2018-2022 to 2019-2023.

As in the case of the first ESP, the second ESP has been developed to serve as a key national policy instrument in the country. It presents the long-term strategic direction for accomplishing key policy priorities for the national education system. The ESP responds to many developmental priorities as outlined in the country's national as well as global priorities. The ESP not only establishes the strategies, components and processes required to attain these priorities, it also presents an integrated Action Plan (Chapter 5) providing a timeframe for implementing these mechanisms along with cost and financial requirements (Chapter 7) as well as mechanisms to monitor and evaluate the progress towards achieving the planned outcomes (Chapter 6).

The ESP was built upon the consensus emerged from a broad consultative process soliciting current information and to verify existing available documentary sources. As in the case of the preparation of the first ESP in 2012, a participatory and collaborative process was adopted involving various stakeholders of Local Education Group (LEG) and development partners (DP) to identify key challenges in various education sub-sectors, and to set the policy priorities and key strategies for the second ESP. Though parents, students and non-governmental sectors (including private sector) were not directly involved, the ESP preparation process used a wide range of information and opinion from these groups generated by social media, GoU's periodic discussions as well as the recently launched U-Report platform by UNICEF.[3]

[1] Minutes of the Local Education Group meeting held on 24 August 2017

[2] Ibid.

[3] U-report is a digital platform for youth launched by UNICEF in several countries, and launched in Uzbekistan in 2018. U-report provides an opportunity to young people to participate in issues that matter in their lives. They are engaged by regular polls through SMS, Facebook, Telegram and special App for smartphones. These polls focus on issues such as education, health and employment. It is used in the country as an interactive way to bring the youth and the Government closer together.

The process of development of the second ESP made all efforts to ensure that the ESP is evidence-based. Information used for the second ESP were drawn from two main sources: (a) a detailed desk review of available data and documents, and (b) detailed discussions among various stakeholders, especially tap the rich anecdotal evidences available from their experiences of working in the sector in the country for a long time.

Documentary sources comprised a large variety of public documents and information generated through further discussion in working groups appointed by the Government, in addition to related reports of missions and studies that had been previously undertaken.[4] In addition, the *draft* Education Sector Analysis, developed with the GPE's Education Sector Plan Development Grants (ESPDG) by The World Bank (2018) and Education Sector Situation Analysis update (UNICEF, 2018) provided much needed information to ensure that the ESP is indeed an evidence-based plan.

In-depth discussions were held with various stakeholders, particularly, members of the Local Education Group (LEG) including government partners and education representatives from multilateral and bilateral donors who were appointed by the Government, other Government partners (including all of the departments of the Ministry of Public Education (MOPE), the Ministry of Preschool Education (MOPSE), the Ministry of Higher and Special Secondary Education (MOHSSE), the Ministry of Employment and Labour Relations (MOELR), the Ministry of Finance (MOF), the Ministry of Economy (MOE), Educational Research Institutions, Teacher and Management Training Institutes). Discussions were also held with other Government Ministries and/or Development Partners (DPs) identified by the LEG, particularly the new entity State Inspection for Supervision of Quality in Education (SISQE) under the Cabinet of Ministers of the Republic of Uzbekistan.

Participatory methods were employed such as focus group discussions (FGDs) and technical meetings with key personnel involved in education.[5] In order to gain different perspectives on a common issue and triangulate the information received, views were sought from those involved at both a strategic and operational level. The development of this ESP has always been regarded as a joint initiative of all stakeholders concerned. Besides that, key issues related to ESP development were discussed through the educational ministries during consultations organised with representatives of the civil society and non-governmental, non-commercial organisations.

The key objective of in-depth working groups held with all educational sub-sectors was the development of an overarching framework of strategic outputs and outcomes in the education sector with a prime focus on the next five years. The emerging interlinked results framework was presented and further discussed at a one-day Validation Workshop with the LEG, and then further refined at a three-day ESP Development Workshop, focusing on the adoption of a strategic design for the ESP and its implementation arrangements, including a comprehensive approach towards monitoring and evaluation (M&E).[6]

[4] Appendix 2 contains a comprehensive list of literature used in developing the Education Sector Plan.
[5] Appendix 1 contains a detailed list of persons and institutions who contributed to the drafting of the Education Sector Plan.
[6] Appendix 3 contains a comprehensive list of workshops conducted in the process of developing the ESP.

2 Country Context

Uzbekistan is the third-largest country by population (32.12 million in January 2017[7]) and fifth-largest by landmass in the former Soviet Union, and accounts for over half of Central Asia's total population. With an adult literacy rate of 99.6% and a GNI per capita (2011 PPP$) of 5,748, Uzbekistan's Human Development Index (HDI) value was 0.701 in 2017, placing the country at 105 in ranking among 188 nations[8].

2.1 Macro-economic sketch

Unlike many other nations born after the collapse of the former Soviet Union which adopted a more radical approach to transition into market economies in early 1990s, Uzbekistan chose an economic policy based on a closed, centrally-planned economy. However, the existing economic policies were incapable of sustaining productivity growth or creating sufficient jobs for a growing young population, leading to substaintial outward labor migration. Following the commodity price shock in 2014 and relative price distortions, it became evident that the drivers of the old economic model are not longer sustainable to meet the country's needs, Uzbekistan steered a process of fast-paced, all-encompassing and wide-ranging market-oriented reforms.

In late 2016, following the first leadership change since the country gained independence in 1991, the newly-elected President Mirziyoyev embarked upon an ambitious economic modernization programme to reinvigorate equitable growth for all of Uzbekistan's citizens[9]. In early 2017, the Government announced a broad market-oriented reform programme, which included five priority policy areas: (i) enhancing state and public institutions; (ii) securing the rule of law and reform of the judicial system; (iii) promoting economic development; (iv) fostering social development; and (v) ensuring personal and public security through inter-ethnic and religious tolerance and constructive foreign policy. The GoU reiterated that timely and effective implementation of the Development Strategy as a top priority of all government bodies and their officials[10].

Following the issuance of its 2017-2021 Strategy, the Government of Uzbekistan has made rapid progress on its path toward social and economic transformation. On September 5, 2017, the GoU allowed the local currency, the Uzbek soum, to depreciate by over 50 percent, allowing the official exchange rate to adjust from UZS 4,210 to UZS 8,100 per US dollar, helping to converge the official rate with the market exchange rate. The government also abolished the surrender requirements on exports, thus elimiating the the large parallel foreign exchange rate premium and reducing large scale economic distortions in the economy and openings for corruption. There have also been important steps to reduce the state's large presence in the economy, liberalize prices and open the economy to greater foreign and domestic private-sector participation in job growth and investment. These actions, by themselves, represent a major first step for Uzbekistan's strategy to achieve equitable growth and jobs, and entail major structural changes that present both opportunities and challenges.[11]

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[7] The State Committee of the Republic of Uzbekistan on Statistics, Official website www.stat.uz .
[8] http://hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf
[9] The World Bank (2018)
[10] http://tashkenttimes.uz/national/541-uzbekistan-s-development-strategy-for-2017-2021-has-been-adopted-following-
[11] The World Bank (2018): Program Document for a Proposed Credit "Uzbekistan Reforms for a Sustainable Transformation Toward a Market Economy Development Policy Operation", May 2018. Report No. 125008-UZ.

Current Economic Scenario

Though the GDP growth suffered during and immediately after the indepedence, past decade or so witnessed a high growth rate of around 7-8%. However, in 2017, the economy expanded at a slower pace than in previous years. Real GDP growth decelerated to an estimated 5.3 percent in 2017, down from the officially reported 7.8 percent in 2016. Following an economic deceleration in 2017, real GDP growth slower further to 4.9% in the first half of 2018 (from 7% in the same period of 2017). According to the World Bank's recent estimates (2018), the annual GDP growth is expected to remain steady at about 5% in 2018–19 and 5.5% in 2020[12].

The consumer price inflation (using the IMF methodology, officially adopted in the first quarter of 2018) accelated from 7.9% by end-2016 to a high 18.9% by end-2017[13]. The acceleration in the inflation rate softened private consumption growth, which rose only modestly in real terms during the first half of the year. Private consumption was largely supported by nominal wage growth (21.4% year-on-year) and rising remittance inflows (15%). Annual consumer price inflation stood at 18.5% in June 2018[14].

As per the IMF and World Bank (2018) estimates, exports and imports as share of GDP, though fell during the period from 2014-2016, is expected to rise in the next few years. However, the Foreign Direct Investments (FDI) as a share of GDP is expected to increase from 1.5% in 2016 to almost double to 2.9% by 2020. Key macroeconomic indicators for Uzbekistan and projections till 2020 by IMF and World Bank, is presented in the table 1 below.

Table 1. Uzbekistan: Key Macroeconomic Indicators and Projections, 2014-2020

	2014	2015	2016	2017e	2018f	2019f	2020f
Real GDP growth, %	8.1	7.9	7.8	5.3	5.0	5.1	5.5
GDP per capita (US$)	2,050	2,124	2,094	1,491	1,239	1,449	1,526
CPI inflation (official end of year), %	6.1	5.6	5.7	14.4	16.9	10.1	8.2
CPI inflation (IMF estimate, end of year), %	9.3	8.4	7.9	18.9	16.9	10.1	8.2
Exports (% of GDP)	19.4	15.0	14.2	21.7	29.0	25.2	27.5
Imports (% of GDP)	19.4	16.2	16.7	22.6	33.5	30.1	33.2
Trade Balance (% of GDP)	0.0	-1.2	-1.5	-0.9	-4.5	-4.9	-5.2
FDI, net (% of GDP)	1.0	1.3	1.5	2.0	2.5	2.3	2.9
Gross official reserves (US$ billion)	24.2	24.3	26.5	28.1	28.9	28.9	28.4
Gross official reserves, months of imports	18.0	21.0	22.1	18.8	18.0	16.4	15.3

Source: IMF and World Bank; e=estimate, f=forecast

Budget revenues constituted more than 40% of the GDP during 2010-2012, which has now come down to 30% of GDP (2016) and is expected to continue so till 2020. At the same time, budget expenditures, which used to constitute between 33-35% of GDP during 2009-2012 period has now come down to stabilize around 30%. In Uzbekistan, fiscal policy has been largely characterized by on-budget activities that are disciplined and rules-bound, coupled with off-budget activities—mainly financed by the Uzbekistan Fund for Reconstruction and Development (UFRD)—to support Government priority sectors and/or State-Owned Enterprises (SOEs), including through directed (often subsidized) lending. Together, the on-budget and off-budget activities form an "augmented" fiscal balance that captures the aggregate

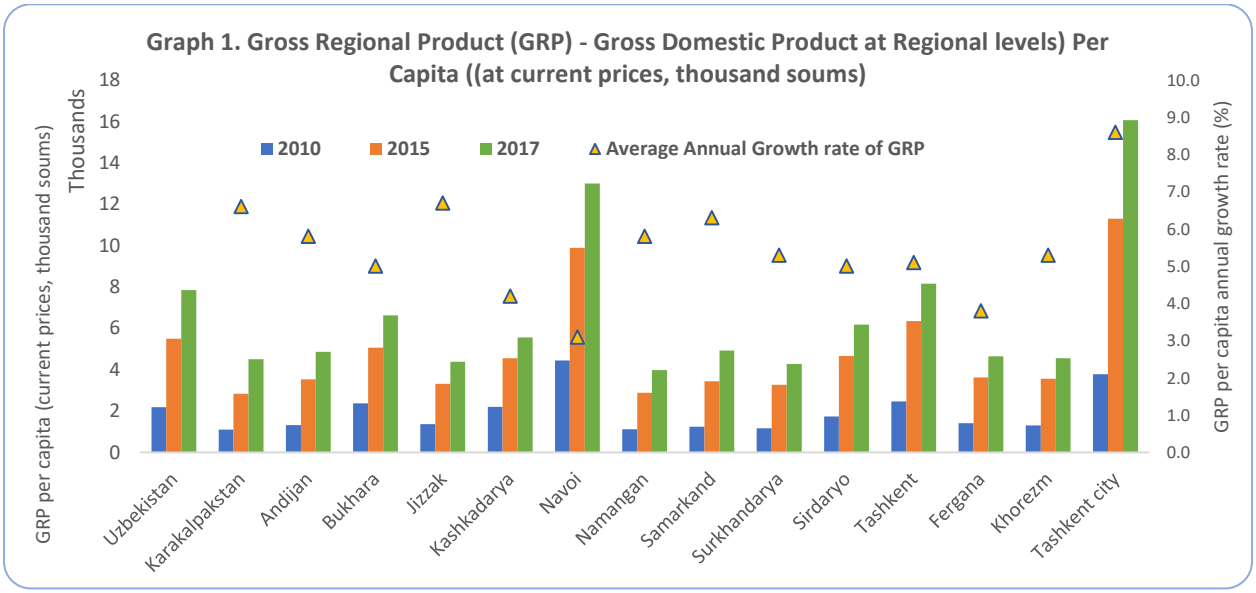
[12] http://www.worldbank.org/en/country/uzbekistan/overview#3
[13] Ibid, page 6.
[14] http://www.worldbank.org/en/country/uzbekistan/overview#3

fiscal stance in the economy. Overall fiscal policies became expansionary (moving from an augmented fiscal deficit of 0.6 percent of GDP in 2016 to a deficit of 3.3 percent of GDP)[15].

Table 2. Uzbekistan: Key Fiscal Indicators and Projections (% of GDP)							
	2014	2015	2016	2017e	2018f	2019f	2020f
Budget revenue	33.1	33.0	30.5	30.1	30.1	30.0	30.5
o/w Tax revenue	20.3	19.9	19.0	18.8	19.4	19.6	19.4
Budget expenditure	32.7	34.1	31.3	30.1	31.3	31.4	30.4
o/w Current expenditure	28.4	29.8	27.9	25.8	26.9	26.3	27.3
o/w wages and salaries	10.4	10.3	10.3	10.3	9.8	9.2	10.0
Interest expenditure	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Capital expenditure	3.7	2.6	2.4	2.6	2.4	2.5	2.6
Fiscal balance	0.4	-1.2	-0.8	-0.1	-1.3	-1.4	-0.2
Gov. revenue incl. UFRD	35.6	34.3	32.2	31.7	31.8	31.5	32.0
Gov. expenditure, incl. UFRD	33.6	35.5	32.7	35.0	33.1	32.9	33.4
Capital expenditure, incl. UFRD	4.6	4.0	3.8	7.4	4.1	4.0	4.1

Source: IMF and World Bank[16]

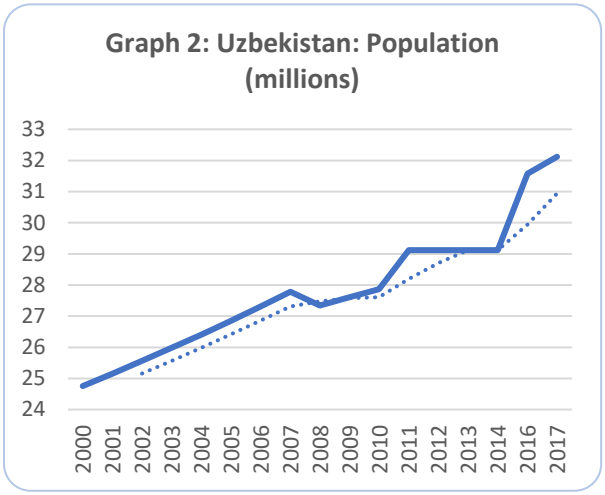
An important aspect to remember about Uzbekistan's economy is that just like any other lower-middle-income country, there are huge variations or economic disparities across regions within the country. While the GDP per capita (or the Gross Regional Product per capita, as the State Committee on Statistics denotes) of Tashkent city was around 16 million soums and Navoi was around 13 million soums, that of Namangan was only around 3.9 million, one fourth of that of Tashkent city[17].



Source: State Statistical Committee (2018)

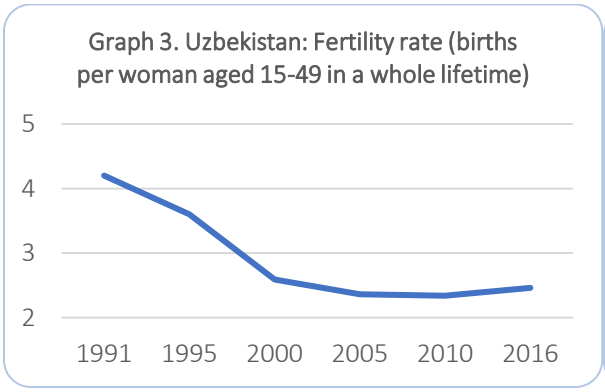
[15] The World Bank (2018): Program Document for a Proposed Credit "Uzbekistan Reforms for a Sustainable Transformation Toward a Market Economy Development Policy Operation", May 2018. Report No. 125008-UZ.
[16] Ibid, page 8.
[17] State Statistical Committee (2018) : Показатели валового внутреннего продукта

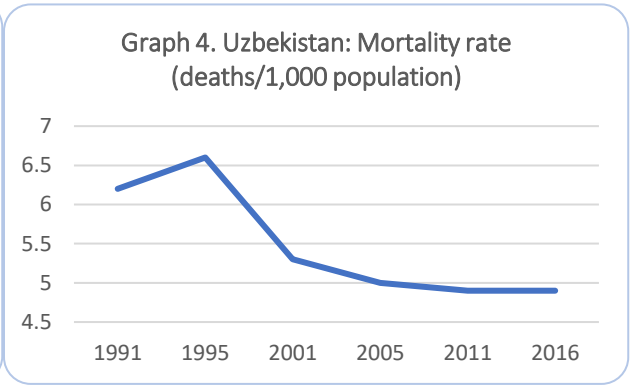
2.2 Demographic Features



Data Source: www.indexmundi.com and The State Committee of the Republic of Uzbekistan on Statistics

After the split of the Former Soviet Union, most of the new Republics, including Russia, have experienced a strong decline of the fertility rates, and consequently a negative demographic growth. The demographic situation of Uzbekistan is different. Between 1991 and 2017, the total Uzbek population has increased from 20.6 million to 32.1 million. The increase in population is not a result of increasing birth rates, rather, they are an outcome of increased life expectancy of the population and decline in mortality rates at various levels. This is substantiated by the fact that the birth rate per 1,000 population in the early '90s was around 35, which declined to around 20-23 by 2016. Similarly, total fertility rate, i.e. the number of children born per woman of childbearing age (15-49 years), was 4.2 in 1991, in subsequent years this figure decreased to 2.5 in 2016.

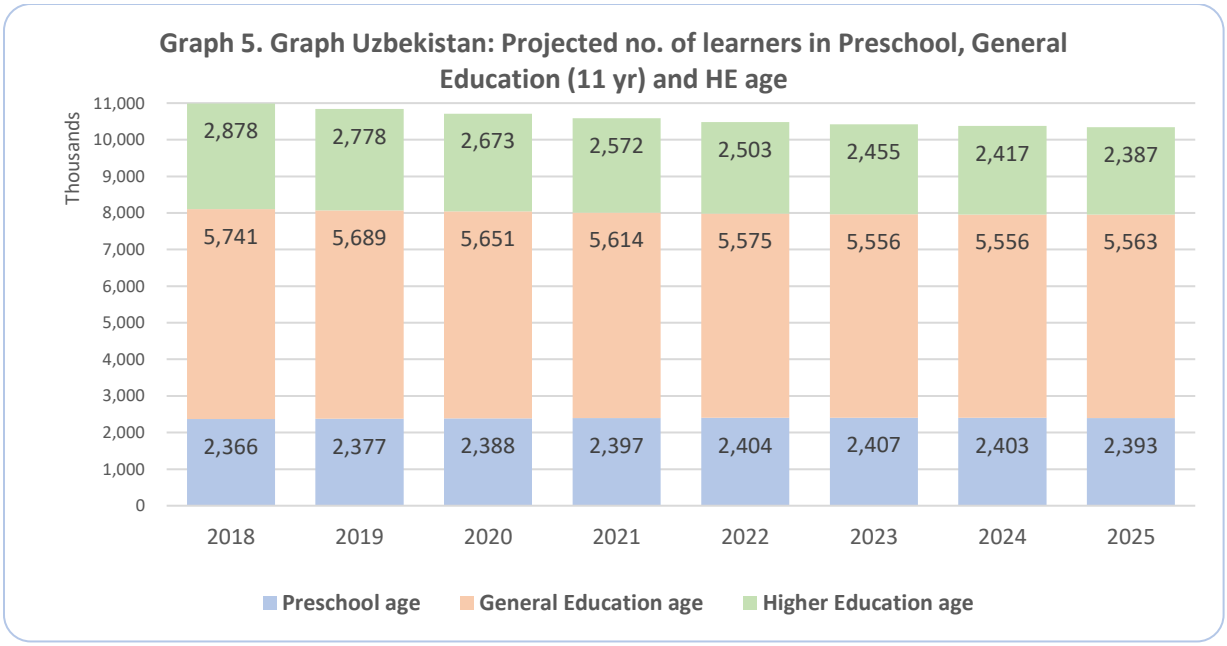




Data Source: The State Committee of the Republic of Uzbekistan on Statistics

These changes naturally have an impact on the evolution of the size of the school age population. The total number of learners aged from 3 to 18 and 19-24 has declined slowly between 2001 and 2017. For the years 2018-2025, this trend is likely to continue for the 19-24 age group and less significantly for the 7-18 age group, with an even slight increase in the Preschool age group. The projections take into account the extended range of general education (from 9 years to 11 years), explaining why the current enrolment in general education (9 years duration) is significantly below the projections for the General Education age as from 2018 (all considered at 11 years, i.e. with two additional age groups included).[18]

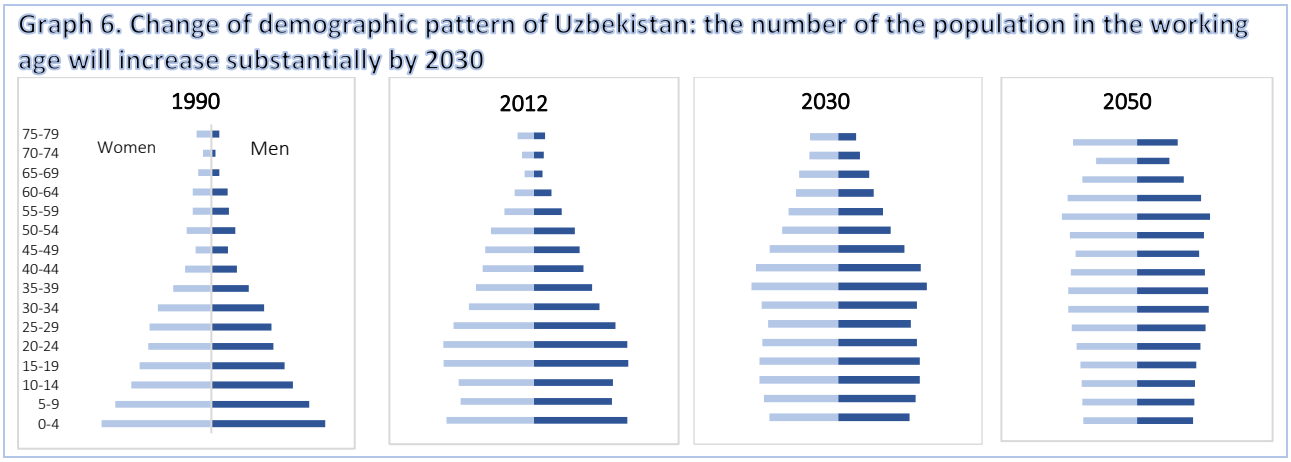
[18] However, it should be noted that the projections by the United Nations databases with regard to the Preschool age group (3-7) differ by around 300,000 when compared to the actual figures used by the State Committee for Statistics of the Republic of Uzbekistan, which see the actual Preschool age group population at 2,689,556 (the other age groups largely correspond). Nevertheless, while the starting figure might differ, the trends with regard to an increasing number of the Preschool population remain the same.



Data Source: United Nations Population Databases

Window of Demographic Dividend /opportunity

As the analysis above suggests, Uzbekistan has been undergoing a steady demographic transition since indepdence. The country's population, although still growing, has stabilized while remaining youthful. And the number of dependents (children under 15 years of age and people over 65 years of age) has declined over previous decades.



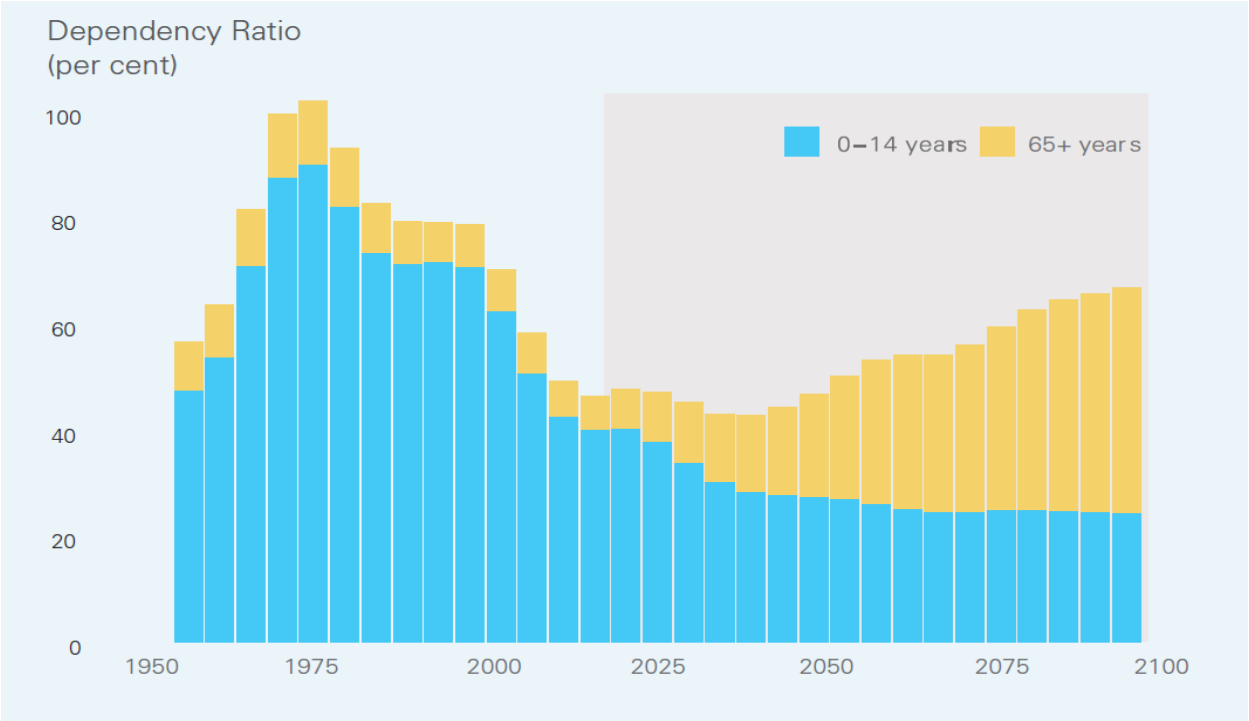
Source: UN World Population Prospects

As a recent UNICEF (2018) Report[19] suggests, this transition has shifted Uzbekistan into a phase that can be classified as the 'early demographic dividend' stage, which implies that the country still has time to reap a period of high and prolonged growth that could boost prosperity and reduce poverty and

[19] UNICEF (2018): "Generation 2030 Uzbekistan: Investing in Children and young people to reap the demographic dividend", UNICEF Uzbekistan.

inequality. However, the Report also cautions that the "window of demographic opportunity" will not stay open for long given the country's population trajectory. Uzbekistan will have some of its least population dependency ratio during the second ESP implementation period.

Graph / Figure 7. Composition of total dependency ratio (children aged 0-14 and persons 65 years of age and over as a percentage of the total population) in Uzbekistan, 1950–2100.



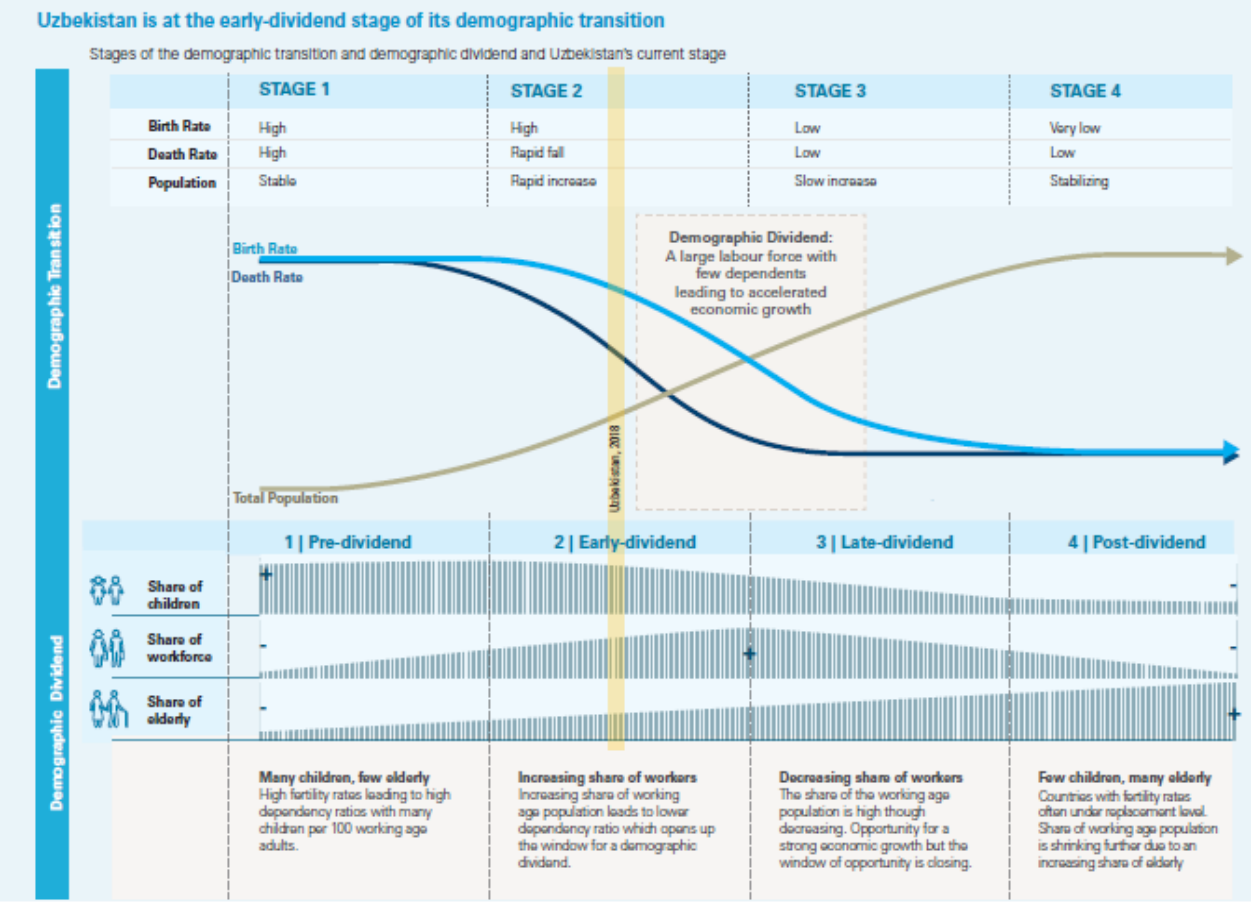
Source: UNICEF (2018)

Uzbekistan is well placed to take advantage of its demographic window of opportunity in the context reforms guided by the Action Strategy 2017-2021– provided it makes the required investments now – and particularly those related to **investing in children and young people.** This will enable the country not only to maximize its chances of a growth and employment spurt in the near future, but also to set the base for a more productive, innovative, inclusive and stable society in the longer term.

It is therefore imperative that these investments in children and young people are made now and in the coming years, as the country will begin to transition towards an aging society within a decade and a half or so. Enhancing the quality of education is one of the key actions[20] for boosting growth and human development, leading to a true demographic dividend. Boosting its human capital will require that Uzbekistan enhances access and particularly the quality of essential services, particularly in early childhood development, general secondary and tertiary education, job skills development etc.

[20] Four **actions** / priorities for boosting growth and human development include: enhancing the quality of education, and health care and nutrition to strengthen the nation's human capital; prioritizing economic flexibility and entrepreneurship; scaling up technological access and innovation; and fostering social participation and cohesion (UNICEF, 2018).

Graph /Figure 8: Uzbekistan's demographic window of opportunity



Source: UNICEF (2018)

A 2013 research paper[21] identified education attainment as the single most important factor behind obtaining demographic dividends. This model treats educational attainment as a major determinant of not only higher productivity, but also of fertility and mortality declines. Most of the economic growth effect attributed to the change in age structure is, in turn, a result of the dual effect of education on fertility and productivity. The demographic dividend occurs when increases in the proportion of the working age population are accompanied by a boost in the productivity of that population.

At present, children in Uzbekistan receive around 11 years of schooling, and most of its population of 25 years of age or older have, on average, received at least a decade of formal education[22]. However, less than 30 percent of the young children (3-6 years) in the country have access to an early childhood education programme, quality of secondary education is unknown and less than a tenth of the youth who complete secondary education makes it to higher education today in Uzbeksitan. To ensure that Uzbekistan is well positioned to reap a demographic dividend, children and youth must receive enhanced education and training, in terms of both quantity and quality.

[21] Crespo, Lutz and Sanderson "Is the Demographic Dividend an Education Dividend?" Demography February 2014, Volume 51, Issue 1, pp 299–315 https://link.springer.com/article/10.1007/s13524-013-0245-x#citeas
[22] UNDP, Human Development Index, Expected Years of Schooling, accessed December 2017.

3 Education Context

3.1 General Overview

The Policy Environment

The Constitution of Uzbekistan (1992) guarantees "right to education" to all through its Article 41: 'Everyone shall have the right to education. The state shall guarantee free secondary education[23]. Schooling shall be under state supervision'. Further, the Law of the Republic of Uzbekistan "On Education" of 1997 (revised in 2007), the National Programme on Personnel Training (NPPT), and the National School Education Development Programme adopted in 2004 defined the legal and policy framework for education in the country till recently. The Law on Education (1997) assures free and compulsory secondary education which has resulted in high enrolments at secondary school levels.

The policy and legal environment in Uzbekistan has been in a state of flux during the past couple of years. While the country's commitments to international goals, especially the Sustainable Development Goals related to education (SDG 4) brought new long-term goals for education sector, the National Action Strategy 2017-2021 provided priority areas for aligning sectoral goals. The commitment of the new leadership that assumed office of the country has been reflected in the presidential decrees and government resolutions aimed at improving education sector that has been issued at regular intervals. The period of elaboration of ESP 2019-2023 has witnessed several of these, and the efforts were to take cognizance of these policy reforms as far as possible while preparing the ESP.

The ESP proposes to address many developmental priorities formulated at national, and global levels. At the global level, the SDGs related to education is an utmost priority to the country. At the National level, the ESP take cognisance of: (a) National Action Strategy 2017-21; and (b) various presidential decrees and government resolutions aimed at improving education sector.

3.2 Education and the Sustainable Development Goals

One of the major policy goals during the Education For All (EFA) era was the declaration of, and working towards universal access to basic education. The belief of the international education community then was that opening up access to schooling by removing barriers such as school fees and enacting free education and related policies would translate to all children being able to access school. For instance, the School Fees Abolition Initiative (SFAI) was conceived based on the assumption that abolishing school fees would, by and large, benefit all children. For some categories of children –- children from poor households, from ethnic minorities, orphans, children trapped in child labour, children in communities afflicted by conflict, wars and natural disasters – that was not enough. The risk of not accessing or completion completing of quality basic education requires a more complex set of solutions. That was the period that culminated into the *Millennium Development Goals*, and MDG 2 and MDG 3, in particular.

As a signatory to the UN Sustainable Development Goals (SDG), Uzbekistan is also responsible for achieving the targets for the education goal, i.e. "by 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal 4 effective learning outcomes". This emphasis on learning outcomes is a timely step forward from the MDGs, which focused on ensuring access to, participation in and completion of primary education, and on gender equality in primary, secondary and tertiary education. It also reflects the knowledge that enrolment and

[23] In Uzbekistan, General Secondary Education encompasses primary and secondary education.

participation in Preschool programmes, formal schooling or adult education are the means to attain results and improved learning outcomes at every stage, from school readiness among young children through achieving literacy and numeracy at primary school to equipping young adults with knowledge and skills for decent work and global citizenship. **Uzbekistan is committed to work towards improving the SDGs and the education sector planning is a tool for the same**.

The most important question that an education sector plan needs to address is whether progress in education outcomes is targeted to yield cumulative and compounding benefits and is sustainable. All education programmes and interventions will be judged on that new standard created by the SDGs. In particular, the SDG 4 for education aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Five of the ten targets under SDG 4 are concerned with improving the quality of education for individual children, young people and adults, and to give them better and more relevant knowledge and skills. Major donor partners within the EFA/MDG/SDG movements stressed the need to harmonise and simplify efforts by multiple agencies to support education and development at the country level. These changes require all development partner agencies to cluster their support around national priorities set by the government, and to engage in constructive policy dialogue on priorities and implementation strategies (including technical and financial resources). For example, broader advocacy work can significantly contribute to highlight the issue of disadvantaged children at risk within the context of SDG 4.

In September 2015, the Government of Uzbekistan (GoU), along with the Heads of State and Government of 192 United Nations (UN) member states, committed to the implementation of *Transforming Our World—The 2030 Agenda for Sustainable Development*[24]and the Sustainable Development Goals[25]as its monitoring framework. To support Member States in their implementation of the 2030 Agenda and the SDGs, the UN Development Group (UNDG) initiated in 2016 the "Mainstreaming, Acceleration, and Policy Support (MAPS)"[26] approach.[27] The MAPS approach was designed to initiate a process towards addressing the challenges and complexities of sustainable development collaboratively, over the longer term[28].

Accordingly, the GoU has decided to align the SDGs with the national development policy framework by: (a) aligning the implementation of the national Action Strategy with the coordination of SDG nationalization efforts and applying a long-term approach to development planning; (b) developing SDG baselines and target values that reflect national aspirations to 2030; and (c) gradually integrating the SDG targets and indicators into central, sectoral and regional strategies, as well as into annual legal, budgetary, and reporting processes (in both the executive and legislative branches)[29]. The last point is extremely relevant for the ESP.

The SDG 4, adapted as National SDGs for education, is as follows:

[24] https://sustainabledevelopment.un.org/post2015/transformingourworld
[25] https://www.globalgoals.org/
[26] https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/files/en/qcpr/doco-summary-brief-on-maps-march2016.pdf
[27] Under this framework, technical experts from UN agencies, funds and programmes have since undertaken more than 30 integrated, multi-disciplinary "MAPS missions" based on country demand and adapted to the very specific development context of each country.
[28] The UN-World Bank Joint MAPS Mission (2018) "Mainstreaming, Accelerating and Policy Support for achieving Sustainable Development Goals in Uzbekistan", draft report – October 2018.
[29] Ibid, page 5.

Table 3: National Sustainable Development Goal targets and indicators for Education: Uzbekistan		
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all		
National targets	**National indicators**	Tier classification (1, 2, 3)
4.1 By 2030 to raise the primary and secondary education to a qualitatively new level leading to relevant and effective learning outcomes while maintaining universal coverage	4.1.1. Proportion of children and young people (a) in grades 1-4; c) secondary school grades 5-9 who achieved at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	III
4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	4.2.1 Proportion of children under 5 who are developmentally on track in health, learning and psychosocial well-being, by sex	III
	4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex	I
4.3 By 2030, ensure equal access for all women and men to affordable and high-quality secondary special, tertiary professional and vocational education	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	II
4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skills	I
4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities	4.5.1 Parity indices by sex, rural/urban, level of well-being, in the education system	III
	4.5.2 Proportion of children with disabilities who are enrolled in school, as a total number of children in this category to be educated	II
4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy needed to promote sustainable development	4.6.1 The literacy rate of the population aged 16 years and over, disaggregated by sex.	I
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in:	III
	(a) national education policies;	
	(b) curricula;	
	(c) teacher education;	
	(d) student assessment	
4.a. Upgrade education facilities to provide safe and effective learning environments for all	4.a.1 Proportion of schools with access to	I
	(a) electricity;	
	(b) the Internet for pedagogical purposes;	

National targets	National indicators	Tier classification (1, 2, 3)
	(c) computers for pedagogical purposes;	
	(d) adapted infrastructure and materials for students with disabilities;	
	(e) basic drinking water;	
	(f) single-sex basic sanitation facilities;	
	(g) basic handwashing facilities	
4.b By 2020, significantly increase the number of loans and grants, including international ones for attending tertiary education institutions	4.b.1 Volume of allocated loans and grants, including international ones for training at the universities in humanitarian and technical areas	N/A
4.c By 2030, substantially increase the number of qualified teachers, including through international cooperation for training and professional development of the teachers.	4.c.1 The proportion of teachers in: a) pre-school institutions, b) general education institutions, who have passed before or during the work at least the minimum organized vocational training (for example, pedagogical) at an appropriate level in the given country	I
	4.c.2. Number of pedagogical workers who have been trained, or passed advanced training (incl. through international cooperation), in total, by region, rural/urban, by sex during last 12 months	I

As the SDG 4 targets and indicators are adapted at the national level, these indicators will definitely become part of the Key Performance Indicators (KPIs) to be monitored under the ESP for the period 2019-2023.

3.3 National Action Strategy on Five Priority Development Areas 2017-2021

As an instrument for realising the fulfilment of the Sustainable Development Goals (SDGs), the President signed a decree On **Uzbekistan's Development Strategy 2017-2021** which approved the *National Action Strategy on Five Priority Development Areas 2017-2021*. The Action Strategy was developed as a five-year strategic plan developed by the new Government which assumed office in 2016, on the basis of a comprehensive study of topical issues, analysis of the current legislation, law enforcement practices and the best international practices, and following public discussion. *National Commission for implementation of the Development Strategy* headed by the President is responsible for its realization.

The timely and effective implementation of the **five priority areas** of the Development Strategy is the top priority of all government agencies and their officials, i.e.

Priority Area 1: Improving the system of state and public construction;
Priority Area 2: Ensuring the rule of law and further reforming of the judicial system;
Priority Area 3: Realising economic development and liberalisation;
Priority Area 4: Developing the social area;
Priority Area 5: Developing the field of security, inter-ethnic harmony and religious tolerance, as well as the implementation of balanced, mutually beneficial and constructive foreign policy.

Of particular interest for education is the Priority Area 4 which includes five sub-areas:

Sub-Area 4.1: Consistent increase in real income and job creation;
Sub-Area 4.2: Improving the social security system and health care, improving the socio-political activity of women;
Sub-Area 4.3: Implementation of targeted programmes to build affordable housing, development and modernisation of road transport, engineering, communications and social infrastructure, ensuring the improvement of living conditions of the population;
Sub-Area 4.4: Development of education and science;
Sub-Area 4.5: Improving the state youth policy.

3.4 Guiding Laws on Education

In 2018, the State Inspection for Supervision of Education Quality (SISEQ) under the Cabinet of Ministers worked with Ministries of Education as well as other related Ministries on the revision of the Law on Education (1997). SISEQ also consulted various international organizations like UNICEF, UNESCO and the World Bank in the process to understand international treaties on the rights of children to education. The revised Law, which is awaiting its final approval, includes, in addition to the 35 articles, additional new thirty articles, focusing on, inter alia,

- a stronger attention directed at realising inclusive education;
- new areas (spheres) of Lifelong Education and Health Education;
- the independence of the private sector;
- the independence of Higher Education Institutions (HEIs);
- a new requirement of centralised data gathering from Universities under the head of each HEI, in order to ensure reliability, validity and comparability of data.

Laws and Policies regarding education during 1992 - 2014

The *National Programme for Personnel Training (NPPT)*, also adopted in 1997, was meant to address a series of issues in education system. This include: the gap between the knowledge and skills acquired by the students and the requirements resulting from democratic and economic transformations, the shortage in highly qualified pedagogical staff, the insufficient quantity of qualitative didactical materials and methodological and scientific literature, the absence of close and mutually beneficially cooperation between the educational system, science and industry.

The *Resolution on State Standards* of 1998 established standards which are binding for all educational institutions. The standards define the requirements for personnel training, the content of education, the level of knowledge of graduates of educational institutions, the teaching and study load, procedures and mechanisms for the evaluation of the work of educational institutions. Among the goals of the state standards are to guarantee the high quality of education and of the preparation of staff for the economic and social transformations of the country, the democratisation, humanisation as well as an increase of students' knowledge about legal and economic matters.

The 2001 *Programme for the Preparation, Re-orientation and Further Training of Qualified Pedagogical and Technical-Pedagogical Staff of the System of Secondary Specialised Professional Education for the Period until 2010* aimed at raising the overall level of qualification

and professionalism of staff working in secondary specialised professional education. This was to be achieved among others through a close cooperation with the industry and the development of distance education systems.

With the *Resolution on the State Examination Centre* of 2004, the Government established the Centre and tasked it with the testing for admission to educational institutions, the control of the quality of teacher preparation, the efficiency of the educational process, as well as the evaluation of graduates' knowledge in terms of state standards and requirements of the country.

The 2006 *Resolution on the Further Development of the System for Re-training of Pedagogical Staff* specified the requirements for the in-service teacher training system and foresees a feedback mechanism between the requirements for in-service teacher training and the monitoring of training results. The Resolution also defined the skills required of a modern teacher, such as the ability to teach and educate in a humanitarian way and to control and evaluate students' progress in an objective manner. The Resolution further specifies the skills needed by teachers at the pre-, general secondary, secondary specialised professional and higher education levels. Teachers were also mandated to undergo training no less than once in three years.

The *Law on the Guarantees of the Rights of the Child* of 2008 stipulated the right to free general secondary education and secondary specialised professional education for children with disabilities. The State is mandated to take appropriate measures to guarantee education for socially vulnerable children who require special pedagogical approaches. Children with physical or mental impediments have the right to education and upbringing in educational institutions according to specially developed educational programmes and in line with their physical and mental abilities and wishes. Based on the interests of the child and the recommendations of the medical commission, parents of children with physical or mental impediments have the right choose between a regular or specialised educational institution. However, this medical model (defectology-based) of defining disability is in present day world is not in alignment with the international understanding of disability related issues.

The Presidential Decree on *Measures for the Further Development of the System of Training and Supply of Qualified Staff to Secondary Specialised Professional Education Institutions* of 2012 highlights the insufficient qualifications of school directors and teachers at academic lyceums and vocational colleges. The Resolution addresses in particular the wide-spread practice of hiring school management and specialised pedagogical staff without due attention to their qualification.

While the policies mentioned above were developed over a period of more than 20 years since independence, the last couple of years have seen a large number of policy decisions coming from the Government to reform various sub-sectors of education.

Government Policies on Education in recent times

In recent times, the GoU has passed a number of important policy decrees and resoultions to support the ongoing reforms. A list of these policy documents are provided below.

Table 4. List of Government policy documents on Education in recent times

Title of the Document	Reference decree/ resolution No.	Date of approval
Preschool Education		
About programme on Construction, reconstruction and capital repair preschool Educational institutions for 2018	PP-3822	02.07.2018
On measures for promoting and developing preschool education system	UP-3651	05.04.2018
On measures to improve the conditions of payment of selected categories of employees of state preschool educational institutions	PP-3571	28.02.2018
On the state program for the implementation of the strategy of action for the five priority development directions of the republic of Uzbekistan in 2017-2021 in the year of support of active business, innovative ideas and technologies	UP-5308	22.01.2018
On improvement of the technical base of the Ministry of Preschool Education and its regional departments, as well as further support to non-governmental preschool education establishments	Cab Min Resoultion No.991	18.12.2017
On improving the structure of the central office of the ministry of preschool education of the republic of Uzbekistan	PP-3378	07.11.2017
About the organization of activities of the Ministry of preschool education of the Republic of Uzbekistan	PP-3305	30.09.2017
On measures to fundamentally improve the management of the system of preschool education	UP-5198	30.09.2017
On measures for fundamental enhancement of the pre-school education system	PD 3261	09.09.2017
On improvement of preschool institutions activities	Cab Min Resoultion No.528	19.07.2017
On approval of state requirements set for preschool education	Cab Min Resolution No. 2898	09.06.2017
On the approval of the administrative regulations for the provision of public services for the reception of children in state pre-school educational institutions	Cab Min Resolution N. 244	28.03.2017
On Approval of State Requirements for Early and Pre-school age children Development in the Republic of Uzbekistan	MOPSE order No. #1	18.06.2018
On measures to further improve preschool education system in 2017-2021	PP#2707	29.12.2016
On measures to further develop activities for provision of non-state educational services	PP #3276	15.09.2017
On improvement of the order on licensing of activity in the sphere of providing non-state educational services	Cab Min Resolution №241	27.03.2018

General Secondary Education		
On measures for implementation of new principles of management in the system of public education	PP-3931	5.09.2018
On additional measures for improvement of the public education management system	UP-5538	5.09.2018
On the measures of raising to the new quality level of the system of spiritual-ethical and physically harmonious education of the youth, its learning and upbringing	PP-3907	14.08.2018
On approval of the order of selection, admission of general secondary education students to academic lyceums	Cabinet of Ministers Resolution N 212	23.03.2018
About enhancement of activities of the Center of secondary vocational, professional education of the Ministry of the higher and secondary vocational education of the Republic of Uzbekistan	Presidential Decree UP-3504	03.02.2018
Measures on the further improvement of system of preparation of the pedagogical staff, retraining and improvement of professional skills of workers of national education	PP-3289	26.09.2017
On approving of the state educational standards for general secondary, secondary specialized and vocational education	Cab Min Resolution No. 187	06-04-2017
On the organization of continuous qualification increase process in Public Education system and improvement of scientific-methodological service	MOPE order No.258	10.08.2017
On approval of the regulation on general secondary education	Cabinet Min Decree No. 140	15.03.2017
On the Approval of the Model Regulation on the Establishment of the Board of Trustees (PTAs) for Public Education	MOPE Order N. 185	13.06.2012
On measures to further improve the system of training teachers, retraining and upgrading the skills of public education workers	PP3289	26.09.2017
On approval of the Regulations on the Ministry of Public Education of the Republic of Uzbekistan and the charters of some subordinate organisations	Cab Min Resolution 961	01.12.2017
On further improvement of teachers' training and re-training system	Cabinet of Ministers Resolution No 25	16.02. 2006
Higher Education		
On measures to further develop the system of higher education and on additional measures to improve the quality of education in higher education institutions to ensure their active participation in the wide-scale reforms implemented in the country	Presidential Decree PP-2909	20.04.2017
	Presidential Decree UP-3775	05.02.2018
To establish new universities (i.e. the University of Journalism and mass media of Uzbekistan, the International University of Tourism "Silk Road" and a branch of Puchon University in the city of Tashkent	Presidential Decree UP-3737	24.05.2018
	Presidential Decree UP-3815	28.06.2018
	Presidential Decree UP-3821	02.07.2018

About approval of the Regulations on procedure for acceptance of persons with disability in the highest educational institutions on training in additional quotas on the basis of the state grant	Cabinet of Ministers Resolution N 417	02.06.2018
About approval of the Regulations on procedure for issue of recommendations for arrival of children of the military personnel of Armed Forces of the Republic of Uzbekistan for study in the highest educational institutions of the republic on the quota basis	Cabinet of Ministers Resolution N 462	22.06.2018
On the organization of special correspondence departments on pedagogical directions in higher educational institutions	PP-3183	09.08.2017
Improving the procedure of licensing to providing private educational services	Cabinet of Ministers Resolution N 241	27.03.2018
On measures to further develop activities to provide non-state educational service	Presidential Decision ПП-3276	15.09.2018
On the organisation of special correspondence departments on pedagogical directions in higher educational institutions [+ Appendix No. 1]	PP3183	09.08.2017
Other Education related documents		
On measures for fundamental enhancement of public support system of people with disabilities	UP 5270	01.12.2017
On approval of the provision on attestation procedure for pedagogical personnel of preschool, general secondary, secondary special, vocational and extracurricular government education institutions	Cab Min Decree No. 107	07.04.2016
On measures to further advance participation of industries and economic sectors in improving the quality of training of specialists with higher education.	PP 3151	28.07.2017
On state programme to further improvement of activities of children' schools of music and art in 2016-2020	Cab Min Decree No 2435	20.11.2015
On the activity of State Inspectorate for Education Quality Control under the Cabinet of Ministers of the Republic of Uzbekistan	Cab Min Decree No 515	18.07.2017

Some of the sub-sector wise policies are elaborated below.

Preschool Education

In December 2016, through a Presidential Decree (PP# 2707 on "Measures Aimed at Further Improvement of the Pre-School Education System in 2017-2021"), the Government approved a Programme for Further Improvement of the Preschool Education System from 2017 through 2021, with the goal of reforming the quality of preschool education. This national program aims at (i) creating conditions for a comprehensive intellectual, emotional, aesthetical and physical development of children, based on best international good practices, (ii) improving the quality of preschool education, and preschool children readiness, based on widely adopted international practice, (iii) establishing half day groups in preschools for children aged 5- 6, (iv) improving the curricula and syllabi for pre-service and in-service training of preschool teachers through modern educational technologies and methods, and (v) improving the material and technical infrastructure conditions of preschools institutions,

including the construction of new preschools in rural settlements, provision of equipment, furniture, teaching and learning materials and multimedia tools compliant with modern requirements[30].

In 2017, the GoU announced an ambitious plan to expand access to preschool education with the aim of achieving 100 percent enrollment for children 5 to 6-year-old, by 2021. Starting with the 2021-2022 school year, it will be compulsory for all 6-year-old children to be enrolled in preschool education. This measure will be implemented in a phased approach, starting in few regions of the country in 2019-2020 school year. Within this context, the GoU established the Ministry of Preschool Education (MOPSE) in September 2017 to play the lead role in the expansion of ECD in Uzbekistan and govern this core sub-sector of the whole education system.

The Presidential Resolution #3571 on "Measures to Improve the Terms of Payment for Certain Categories of Employees in State Pre-school Education Institutions" paved the way for the Government to annouce substantial increases in salaries of preschool teachers and staff. In order to improve working conditions and attract highly qualified personnel to work in public preschools (currently service provision takes place almost entirely in public preschools; only 2 percent of children aged 3 to 7 attend non-public preschools). The GoU announced an immediate 30 percent increase in base pay for head teachers, teachers, methodologists, psychologists, music teachers, and assistant teachers of preschools, in February 2018. An additional pay increase is expected to go into effect in the second semester of 2018 for teachers of children aged 5-6/7, which would equalize base pay for these teachers with that of primary school teachers in general secondary education schools[31].

The Government has also announced, through the President's Resolution #3651 on "Measures of Further Stimulation and Development of Preschool Education System" dated April 5, 2018, reforms to expand access to preschool through stimulating both the supply of and demand for preschool education. To expand the supply of preschool services, the GoU is promoting several types of Public-Private Partnerships (PPP) models, which include incentives such as free provision of land and/or buildings and the introduction of publicly funded subsidies to cover part of the costs incurred by private preschools[32]. The approach for increasing access to preschool education nationwide includes a massive expansion in urban areas in partnership with private providers, while the GoU will continue playing the role of service provision in rural areas. To stimulate household demand for preschool education, the GoU has also recently reformed the structure of fees paid by parents for their children to attend public preschools. In particular, the GoU approved a reduced set of fees for children in rural areas and in the regions of the country[33]. Additionally, preschool education will be provided at no cost for some families from disadvantaged socioeconomic backgrounds in private preschools.

According to the Resolution of the President # PP-3304 "On Advancement of Activities of the Ministry of Public Education of the Republic of Uzbekistan", dated 30 September 2017, and based on the Decree of the President # 5198 "About System Improvement of Preschool Education", also dated 30 September 2017, functions of MoPE with regard to the "organisation of qualitative education for pre-school children, as well as their all-round intellectual, moral, aesthetic and physical development" have been transferred to the newly established Ministry of Pre-school Education (MoPSE). This was a response to

[30] World Bank (2018): Draft Education Sector Analysis (unpublished).
[31] World Bank (2018): Draft Education Sector Analysis (unpublished).
[32] President's Resolution #3651 on "Measures of Further Stimulation and Development of Preschool Education System" dated April 5, 2018.
[33] 9 https://www.gazeta.uz/ru/2018/01/09/kindergarten

the strategy of making preschool objectives one of the current priority directions for education in Uzbekistan, including a stronger focus on early childhood development issues in general.

The development of Early Learning and Development Standards (ELDS)[34] led to the concept of a national programme for Preschool education, known as *Bolajon* which replaced the previous curriculum called "The Child of the Third Millennium". *Bolajon* was approved by MoPE as national resource programme for preschool teachers to educate preschool aged children (MoPE 2011), and then became mandatory to be used by all pre-school pedagogues starting with the 2011-2012 academic year. *Bolajon* was replaced by a new competency-based curriculum based on the State Requirements[35] for Preschool Education.[36]

General Secondary Education

Uzbekistan is in the process of expanding general secondary education (GSE) from 9 to 11 years of schooling. Until 2017, GSE in Uzbekistan consisted of nine years of compulsory education (grades 1 to 9). However, starting with the 2017-2018 school year, compulsory general secondary education is being expanded from 9 to 10 years of study, and will be expanded to 11 years of study by 2018-2019. However, students can still choose to attend academic lyceums instead of general secondary schools for Grades 10 and 11, although the study program for academic lyceums has been condensed to two years. In other words, compulsory general secondary education could involve 11 years in a general secondary school or 9 years in a general secondary school plus 2 years in an academic lyceum. Starting in the 2019-2020 academic year, the graduates of Grade 11 can choose to continue their studies in vocational colleges, as detailed below. The reformed structure of the system means that students now have three pathways to complete their pre-university education: (i) 11 years of general secondary education; (ii) 9 years of general secondary education + 2 years in an academic lyceum; or (iii) 11 years of general secondary education + 0.5-2 years in a vocational college (See Chart/ Figure 9A & 9B).

The Government has recently adopted a number of legislative documents aimed at structural and system reforms in the public education. In particular, the Presidential Decree from 5 September 2018 (UP-5538) "On additional measures to improve the management system of the public education" intended at further improvement of the systems of public education through introduction of new management mechanisms and quality standards in the educational process, increasing the prestige of the teaching profession in the society, improving the material and technical condition of educational institutions.

Presidential Resolution on the measures of raising to the new quality level of the system of spiritual-ethical and physically harmonious education of the youth, its learning and upbringing (PP-3907, dated 14 august, 2018) discusses increasing of salaries; preferences for teachers and their families in getting bank credits, housing, automobiles; protection and increasing of the status of teachers; prohibition of all activities related to attracting school staff to forced labor; prohibition of all school controls and

[34] *State requirements to the development of children of pre-school age* (Early Learning and Development Standards) is a document which sets out the national principles for the development of children from 0 to 7 years, determining what a child should know and be able to do at an early age. An updated version was officially approved by MoPE in late 2011, after age and content validations.

[35] State *Requirements* is the term used in Preschool Education for the equivalent of State *Standards* used in other education sectors.

[36] This new competency-based curriculum also took into account international experience from Korea, Estonia, Belarus, Russia and the UK.

inspections of school activities and documentation by various state and regional organizations not related to educational process, etc.

Chart /Figure 9A: Education Structure in Uzbekistan: Previous system

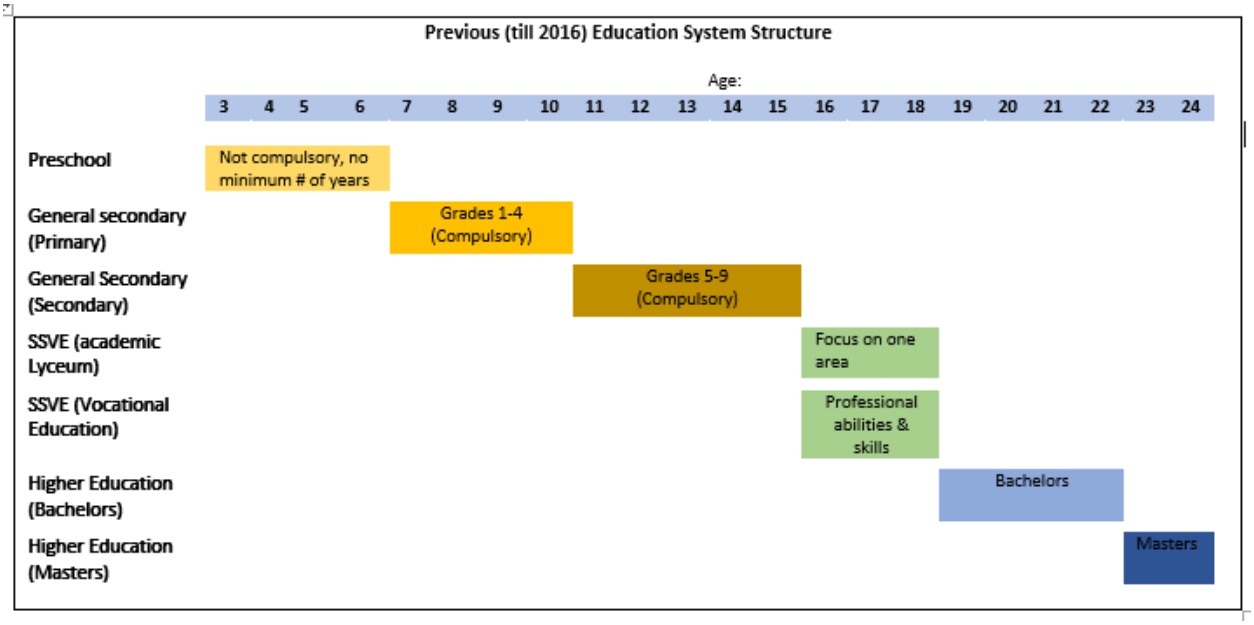
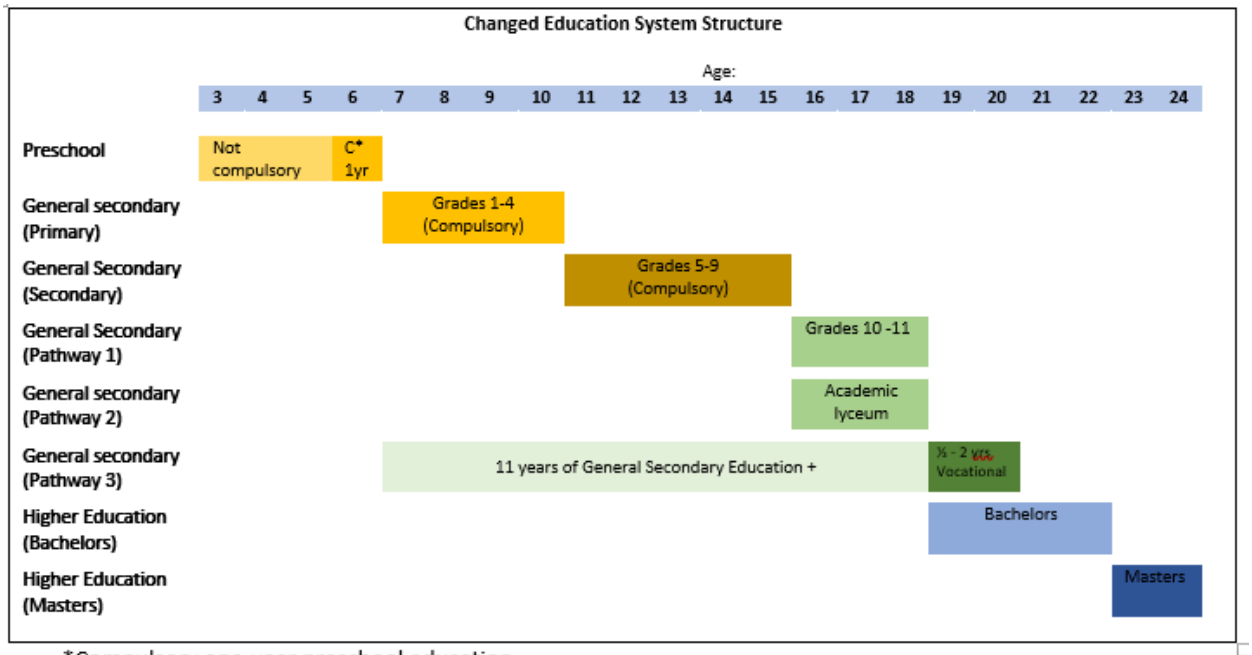


Chart /Figure 9B: Education Structure in Uzbekistan: Current system



*Compulsory one-year preschool education

On September 5, 2018, through the Resolution of the President of the Republic of Uzbekistan of No. PP-3931 “On measures for the implementation of new principles of management in the system of Public Education” the Government approved the new organizational structure and the structure of the central

administrations of the Ministry of Public Education, as well as the Program of measures on further improvement of the public education of the Republic of Uzbekistan for 2018 – 2021.

The mid-term measures highlighted in the Program of measures of Resolution PP-3931 were aimed at: 1) Improving legislation, including development of Law "On the status of a teacher", development of draft of normative acts regulating the activities of non-state general education organizations); 2) Improving the quality of education and the introduction of innovative educational technologies, including measure on improvement and gradual introduction of new state educational standards and curricula, ensuring participation of Uzbekistan in international programs and studies to assess the level of students' knowledge (PISA) and teacher's quality (TALIS), creation of advanced system of training and retraining of managers and specialists of the public education system, measures for prevention and prophylaxis the cases of harassment and violence among children, development of criteria for assessing the effectiveness of teachers and heads of educational institutions); 3) Introduction of information and communication technologies in the system of public education, including introduction of a new funding mechanism, such as per capita voucher from the 2019/2020 school year, development and approval of programs of measures for the further implementation of EMIS and computerization of educational institutions for 2019-2020 with the identification of specific sources of funding; 4) Improving teacher training system including introduction of new course on "Management in the public education" in higher educational institutions from 2019/2020 school year; 5) Improving the material technical provision of educational institutions including Development and approval of the State program "Modern School" and Address Program for reconstruction, overhaul and equipment of educational institutions for 2020-2022, implementation of complex repair of heating and lighting systems of individual educational institutions using a mixed financing mechanism. A number of measures were adopted for reforming the system of methodological support of teachers.

Most recently, the *Reform Agenda for the Public Education System of the Republic of Uzbekistan*, as endorsed by the President during a special meeting with the Cabinet of Ministers on 17 July 2018, identified a number of measures, inter alia to improve the image of teachers on society, particularly with regard to increasing the level of their salaries and the establishment of a Control and Legal Service of the Minister, assigning to it the functions of internal supervision, protection of rights, honour and dignity of the public education staff. Further, the Reform Agenda aims at strengthening the role and responsibility of the Ministry of Public Education and to improve the financing of public education by transferring the financial management in the system of public education to the disposal of MoPE, including the establishment of the Fund for the Development of School Education under MoPE at the expense of a part of the resources from the non-budgetary *Fund for the Development of the Material and Technical Base of Educational and Medical Institutions* under the Ministry of Finance (MoF).

Professional Education (Previously Secondary Specialized Vocational/Professional Education)

Uzbekistan is underway in reforming its Secondary Specialized Vocational Education (SSVE) sub-sector with the aim of making it more flexible and aligned with the labor market. In the context of extending GSE to 11 years of study, as described above, admission to vocational education will be available only for graduates of compulsory general secondary education (after Grade 11) on a voluntary basis. The programs in vocational colleges will last from 6 months to 2 years, depending on the specialization. Furthermore, the recent reform aims at improving the vocational colleges network based on national and regional economic development priorities, labor market forecast and technological development and trends. It is expected that the number of vocational colleges will be substantially reduced, from

around 1,400 to around 800 colleges[37], including through the organization of multi-disciplinary colleges by providing targeted training programs in high demanded specializations.

The SSVE system is also being reformed to better support continuous Vocational Education and Training (VET) for adults. The recent reform of the SSVE sub-sector includes the transfer of administration of vocational colleges to Ministries other than the Ministry of Higher and Secondary Specialized Education, as well as to public agencies or enterprises operating in the same sector under which training programs are offered. By subordinating vocational colleges to other organizations in the same sector, it is anticipated that vocational colleges will be better able to respond to the skills needs of specific industries. The SSVE reform also promotes the provision of adult training in existing vocational colleges, including vocational training and retraining for the unemployed. This change is aligned with international good practices in lifelong learning, under which vocational colleges play the role of training provider.

Higher Education

The higher education system is managed by the Ministry of Higher and Secondary Specialized Education (MOHSSE). Several other governmental agencies play different roles in the management of this sub-sector in addition to the MOHSSE. These include, among others, the Cabinet of Ministers, who makes strategic decisions for this sub-sector, the Ministry of Economy, who decides on the number of students places available in higher education; and the State Testing Centre, who is responsible for quality assurance.

The Law on Education N-464-I (1997) regulates the higher education system in Uzbekistan. More specifically, the Presidential Decree No. 1533 from May 2011 focuses on improving quality, teaching infrastructure, and management of the sector. In addition to the aforementioned Decree 2204 regarding research, Decree No. 371 by the Cabinet of Ministers, from 2012, introduced of a new approach to the assessment of quality in the sector moving away from a focus on inputs to start looking at outputs.

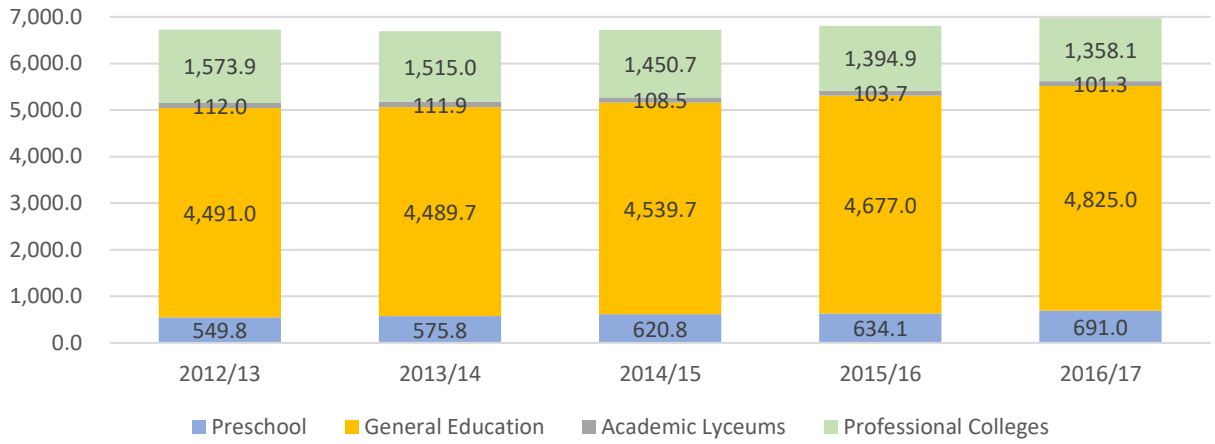
[37] President's Decree on "Measures to Comprehensively Improve the System of General Secondary, Secondary Specialized and Vocational Education" dated January 25, 2018.

3.5 Education Sector Situation Analysis

The education sector diagnosis presented in this section is informed by a sound and holistic analytical framework that covers all sub-sectors of the education sector as well as sectoral concerns. Accordingly, the education sector analysis for ESP focuses on all sub-sectors of education using the following criteria: (i) Access, participation and inclusion; (ii) quality and relevance of education; (iii) governance and management; and (iv) costs and financing. There are cross-cutting areas such as equity, efficiency and efficacy, which are cross cutting themes, and this approach is broadly in alignment with the analytical framework that the World Bank had proposed for Education Sector Analysis (ESA) as evident from the Concept Note and *draft* ESA.

The system of education in Uzbekistan comprises of a total of 16,423 educational institutions including 5,138 preschools, 9,719 secondary schools, 144 Academic Lyceums and 1,422 Professional Colleges, covering a total of 6.975 million students with 482,500 teachers, resulting in an overall pupil : teacher ratio (PTR) of 14.5:1 (PTR at general education being 12:1.)[38] The dominant language of instruction in schools is Uzbek (82.5% of general secondary schools), with other languages used as a medium of instruction being Russian (7.6%).Kazakh (3.5%), Karakalpak (3.3%), Tajik (2.2%), Kyrgyz (0.5%) and Turkmen (0.4%).[39] While the total number of learners has slightly increased by 3.7% from 2012/13 (N=6.73 million) to 2016/17 (N=6.975 million), the increase in the number of learners has been more significant for General Education (from 4.49 million to 4.825 million, an increase of 7.4%) and particularly for Preschool Education (from 549,800 to 691,000, an increase of 25.7%), the latter reflecting the Government's objective to expand Preschool Education as expressed in the First ESP.

Graph/ Figure 10. Uzbekistan: Number of learners in different levels of education (in 1000's)



Data source: MOHSSE

Looking at the entire education system with all its levels, including higher education and preservice and qualification enhancement, the total number of learners amounts to 8.07 million learners as shown in the detailed table below:

[38] Source: The State Committee of the Republic of Uzbekistan on Statistics, official website www.stat.uz .
[39] Source: Education in Uzbekistan 2017, State Committee on Statistics.

Table 5. Number of learners at all institutions at different levels of education (in 1000's)					
Institutions	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Preschool	549.8	575.8	620.8	634.1	691.0
General Education (9 years)	4,491.0	4,489.7	4,539.7	4,677.0	4,825.0
Academic Lyceums	112.0	111.9	108.5	103.7	101.3
Professional Colleges	1,573.9	1,515.0	1,450.7	1,394.9	1,358.1
SUB-TOTAL	***6,726.7***	***6,692.4***	***6,719.7***	***6,809.7***	***6,975.4***
Higher Education Institutions	258.3	259.3	261.3	264.3	268.3
Institute for Scientific Specialists	1.2	1.2	1.0	1.4	1.4
Preservice and Qualification Enhancement	295.0	294.9	278.2	283.1	268.6
Barkamol Avlod	96.2	102.7	105.3	112.3	116.6
Music and Arts Schools[40]	47.8	49.0	52.8	58.1	72.4
Sport educational institutions	349.3	366.7	350.1	362.4	368.7
TOTAL	**7,774.5**	**7,766.2**	**7,768.4**	**7,891.3**	**8,071.4**

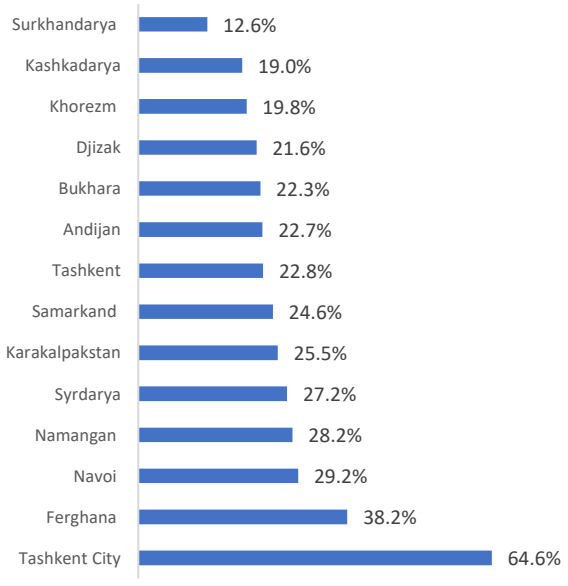
Data Source: The State Committee of the Republic of Uzbekistan on Statistics

3.5.1 Preschool Education

Access and Participation

While the number of children enrolled in preschools have increased from 554,000 in 2007 to 908,000 in 2017, the preschool enrollment rates have increased only from 20% to approximately 29% during the same period, indicating that a large majority of children in the age group of 3-6 years remain out of preschool education system. The *draft* Education Sector Analysis (World Bank, 2018) shows that Uzbekistan's net preschool enrollment rate is very low compared to other countries, such as Kazakhstan (60%), Finland (79%), Moldova (82%), Russia (85%), Japan (90%), and Brazil (82%).

Graph 11. Preschool enrolment rate in Uzbekistan by regions, 2015-2016, %



Equity in access and participation

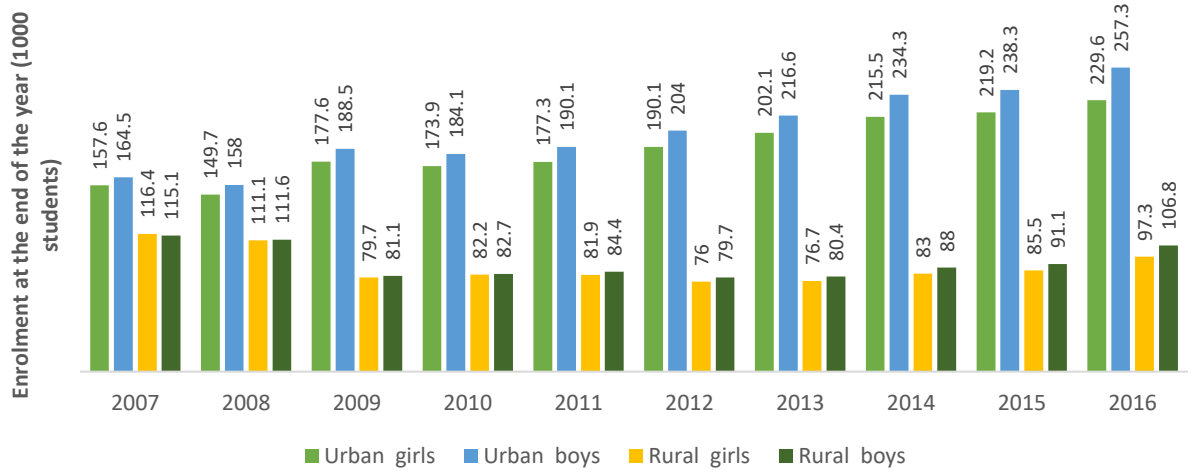
The spatial variations in preschool education participation is very apparent in Uzbekistan. While nearly 80% of children in 3-6 years in Tashkent city get the opportunity to attend a

[40] Operating under the Ministry of Culture.

preschool, only 12% children in Surkhandarya and 20% in Kashkardarya are fortunate to have a preschool experience. Differences between rural and urban areas are even starker. Even after accounting for the overall population trend which is moving towards urbanization (51% urban population in 2017 compared to 37% in 2010), preschools are mostly located in urban areas – 60% of all preschool institutions, and 67% of preschool spaces and enrollments are in urban areas. While only 23% of the preschool age group children attend any early childhood education provision in rural areas, in urban areas, around 46 percent of children in the same age group attend some form of preschool education.

Eventhough the gender disparity in preschool enrolments seem smaller, they need further attention. While girls account for only 47% of all preschool enrollments in Uzbekistan, their share in 3-6 years child population is 48.2% (State Committee on Statistics, 2017). The growth in preschool enrolments was driven by increased enrollments of urban boys. In fact the gap between the number of boys and girls in both rural and urban areas have been increasing over the years. See the graph below.

Graph 12. Trends in preschool enrolments in Uzbeksitan by area and gender



Source: https://gender.stat.uz/en/

The provision of preschool education is affected by the following factors at present: (a) not enough preschools; (b) existing preschool spaces are not enough to cover all children in the eligible age groups; (c) there are huge under-utilization of existing places in many regions due to various factors, including financial reasons, yet there are overcrowding in other regions; and (d) limited presence of non-state providers (private or NGO driven preschools). Apart from these access factors, the demand for preschool education, as evident from the stakeholder discussions and limited literature available on this subject in Uzbekistan, is influenced by the following factors: (i) geographical access in remote rural areas; (ii) costs of services; (iii) quality of preschool infrastructure and services offered; and (iv) community/parents' knowledge, attitudes and existing cultural practices.

At present, most of the preschool education is provided through public preschools – only around 2% of preschool children attend the programme in a non-public preschool. Uzbekistan offers public preschool education services through two models: (a) the more traditional, fully -day preschool services; and (b) the half-day models. World Bank (2018) reports that around 55701 children are currently attending short-stay groups and enrollments in half-day groups in rural preschools has increased from 8.5% to 13.4% of all rural preschool enrollments during 2013-2017 period.

Preschool Infrastructure and facilities

Sub-optimal infrastructure conditions in many preschools adversely affect early childhood education services. Nearly half (47%) of the preschools require major repairs. Heating, lighting, water supply and sewage services are not in working conditions during school hours in many preschools. For example, only 30% of existing preschools in Kashkadarya and 45% in Bukhara have access to running water. Close to 65% preschools in Andijan are not supplied by gas. Nearly a sixth of the preschools do not have access to stable heating.

Preschool teachers and staff

While most preschools are staffed adequately with an array of service providers (pedagogical and non-pedagogical staff), their qualifications and quality of service provision vary depending on their experience and expertise. A majority of preschool teachers (nearly 77%) have only a secondary vocation education qualification (MOPSE 2017). The Pupil-Teacher Ratio (PTR) at urban preschools is currently around 25:1 while in rural areas, it is barely 5:1 (National Statistics Committee, 2017). While there is not enough studies or analysis to support this, anecdotal evidences suggest that efficiency and effectiveness of preschool staff could be improved with better, holistic and multi-disciplinary, multi-purpose training.

Salaries of teachers in preschools vary significantly depending on teachers' qualification and location of school. Teachers receive anywhere from US$ 78 (around 610.16 thousand Soum) per month, which is the salary for teacher assistants, to US$ 175 (around 1,375.37 thousand Soum) for teachers of high qualification category working in certain regions of the country. A new Presidential Decree will increase preschool teachers' salaries by 30 percent. From September 2018, salaries of preschool teachers of 5-6/7-year-olds are made the same as those of teachers of primary of general secondary schools. At the same time, salaries of teacher assistants will increase by 20 percent, and salaries of preschool directors will increase by 10 percent[41].

Quality of preschool education

Due to limited attention given to the content of preschool programme that was offered in the preschools in the country till recently, it is evident that the preschool education participation did not contribute to any school readiness and learning of children in primary grades. This is evident from the results of a recent nation-wide study by UNICEF (2018) that looked at the profile of children with low learning levels. At present, there is no system in place to measure quality within the preschool system in Uzbekistan. The Ministry of Preschool Education (MOPSE) has approved in September 2018 a revised curriculum for preschool education and subsequently, the Early Learning Development Standards (ELDS). Implementing these require training of preschool pedagogical staff and generating broad consensus among community about the intend and (expected) impacts.

Preschool Education Management and Management of Preschool Information System

As MOPSE is a relatively new entity established only in September 2017, creating a vibrant structure at sub-national and local levels to implement MOPSE's ambitious preschool education programmes require huge efforts in capacity building at various levels. As there are new key institutional actors in the system and the decision making is fragmented, strengthening the system is cruical for improving preschool education system.

[41] The World Bank (2018): *Draft* Education Sector Analysis (as on October 16, 2018)

While the MOPSE is currently piloting an Education Management Information System (EMIS) for preschool education, absence of evidence based decision making is an important issue. At present different ministries/ agencies collect preschool education data, but the reliability, quality and availability of the analysis is a matter of concern. Data gathering mainly follows a "bottom up" pattern, and with limited flow back of analysis to sub-national or local levels there is limited use of data for planning and decision making at regional or local levels. Capacity to do meaningful analysis out of the data collected is limited at present.

3.5.2 General Secondary Education

Access, partication and internal efficiency

General secondary education in Uzbeksitan is free (implying no tuition fees) and compulsory in the country, and this has resulted in a near-universal enrollments in the sub-sector. While the overall gross enrollment ratio (GER) in grades 1-9 was around 97% in 2016-17, for primary grades (grades 1-4), this was 100% and for secondary education levels (grades 5-9), it was 94%. There are variations across regions regarding the GER, with around 108-111% GER in Tashkent city while only 86% in Karakalpakstan.

Though the Ministry of Public Education (MOPE) suggest that all children are enrolled and the "out-of-school" or "dropout" children are merely a reflection of student absenteeism, it is still an important issue to look at. UNESCO Institute of Statistics reported that there were around 33,000 children and 108,000 adolescents out of school as of 2017 and around 60% of the out-of-school adolescents were girls[42]. It is to be noted that the out-of-school children were over 60,000, or less than 2% of the relevant children's age population, with girls constituting nearly 70% in 2016 (UNESCO Institute of Statistics). The Government produces few offical statistics on out-of-school children and youth, in part because general secondary education is compulsory and there is expectation that this phenomenon is rare or non-existent in the country (World Bank (2018) Education Sector Analysis). World Bank (2018) reports significant differences across general secondary education, with higher out-of-school people among grades 5-9 age groups (4.5%) compared to that in the primary grades (grades 1-4) age groups (0.15%). Out-of-school children and adolescents are more predominant in Karakalpakstan (7.5%), Syrdarya (4.5%), Samarkand (4.4%), Bukhara (4.3%) and Tashkent region (4.2%).

According to UNESCO's Global Monitoring Report, 99% of grades 1-4 students in Uzbeksitan complete that level of education and successfully transition into grade 5. Compared to this, nearly 95% of boys and 94% of girls make it to grade 9 (the final grade of secondary education), and the overall gross graduation ratio from grades 5-9 in Uzbekistan was 91% in 2016[43]. The systems in place for monitoring general secondary education in Uzbekistan do not track cohort level time series data for internal efficiency indicators such as dropout rates or repetition rates.

An important point that the Ministry of Public Education (MOPE) clarifies is that since general secondary education is free and compulsory, all students are enrolled in school, and what the NER and internal efficiency indicators like dropout rate shows is the student absence rates.

[42] World Bank (2018): *Draft* Education Sector Analysis (as on 15 October 2018)
[43] ibid

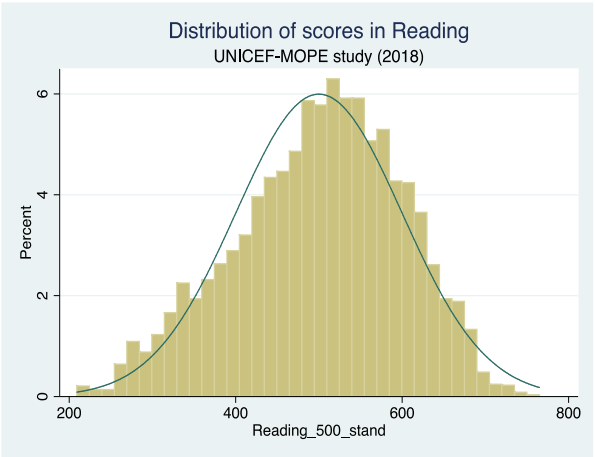
Quality - Learning assessment

As the Government do not conduct or participate in any standardized assessments (examinations, national assessments or international assessments) understanding and assessing students' learning outcomes and factors contributing to the same is difficult. Available information suggests that the quality of general secondary education and learning outcomes of students remain highly variable and equitable. However, some assessments can be made using recent efforts to assess students' learning by two sources: (a) the National Assessment of Learning Outcomes of Primary School Graduates (NALOPSG)- 2013 of grade 4 students; and (b) UNICEF-MOPE (2018) study on the profile of children with low learning levels, again covering grade 4 children in Math, Language and Social Sciences[44].

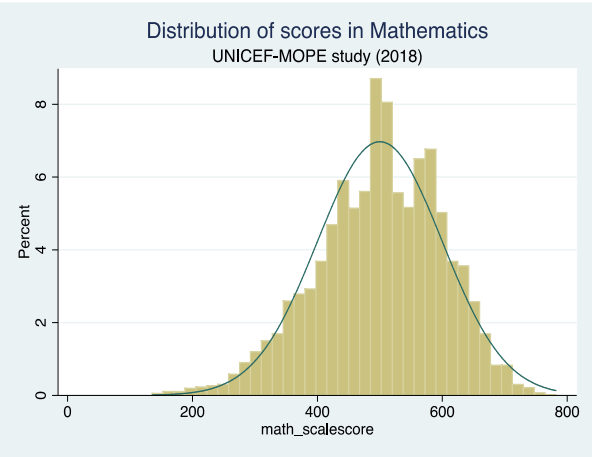
The sample-based NALOPSG in 2013 covered Mathematics, reading and native language within the context of the World Bank supported Basic Education Project -II. The results from this study showed that on average, students were not able to correctly respond to at least 50% of the tested content in reading and in native language. This means that students in Grade 4 on an average demonstrated proficiency in less than half of the tested content, which signals a potentially significant shortcoming of the education system as well as a barrier to the acquision of higher-order skills that require proficiency in reading and language. On the other hand, in Mathematics, students responded correctly to at least 50% of the cotent tested on average.

UNICEF – MOPE (2018) study, which used instruments that are prototype of international tests, while confirming the overall NALOPSG (2013) results, also throws more insights into the learning achievement scenario in the country. The UNICEF-MOPE (2018) study tested around 7000+ grade 4 children in around 268 schools/ classes in a nationally representative sample-based assessment survey. The preliminary findings of the study shows that there are vast differences in the performances of children, and on an average, children knew less than half of the reading (Language) test. It is important to note that central to the learning is reading and writing, as it is a critical tool for the master of other subjects as well as one of the best predictors of longer term learning achievement[45].

Graph / Figure 13: Distribution of scores in Reading /Language test for grade 4 students



Graph / Figure 14: Distribution of scores in Mathematics test for grade 4 students

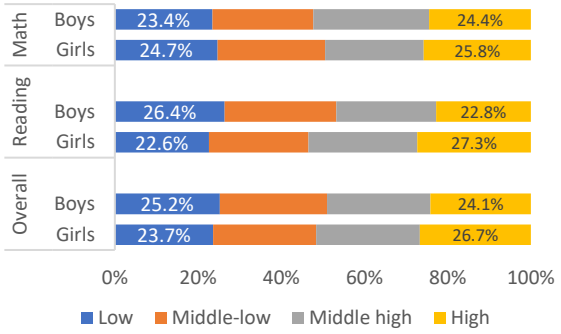


Source: UNICEF estimates from UNICEF-MOPE study (2018) data

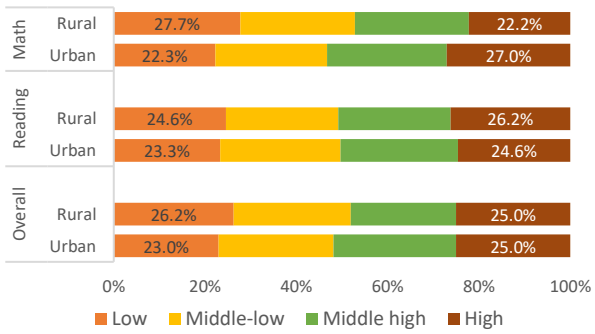
[44] World Bank (2018): *Draft* Education Sector Analysis (as on 15 October 2018)
[45] UNESCO (2005) Education for All Global Monitoring Report – The Quality Imperative; page 148

The analysis of results by gender reveal that there are only relatively small differences in the achievements of girls and boys, though there are more boys among the low performers than girls, especially in language. Similarly, though the overall performance of children in rural and urban areas are relatively small, urban children did better than rural children in Mathematics, while rural children did slightly better than urban children in reading.

Graph 15. Performance of students by gender (UNICEF-MOPE study 2018)



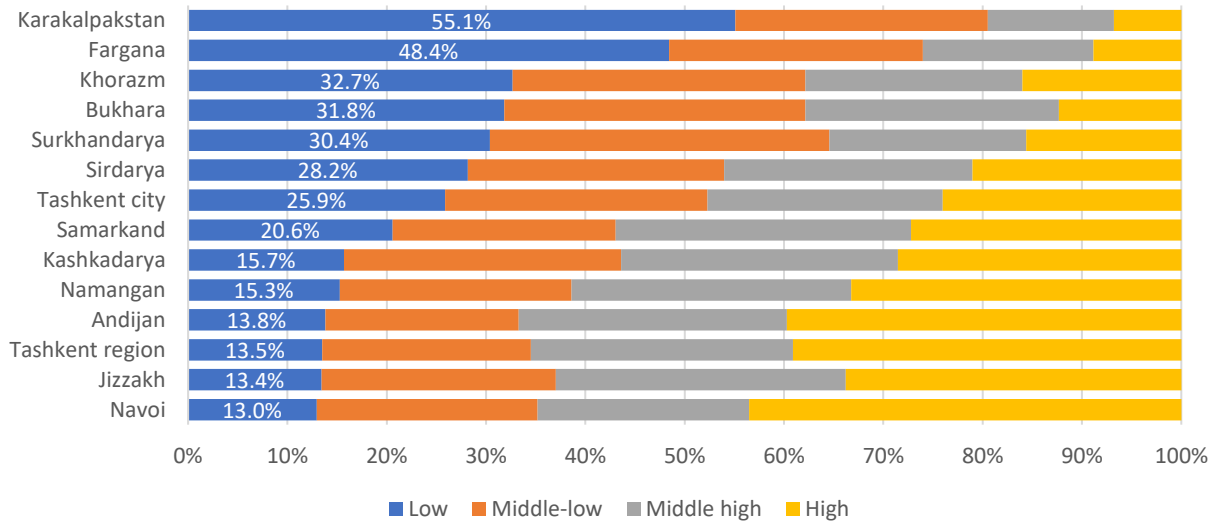
Graph 16. Performance of students by Location (UNICEF-MOPE study 2018)



Source: UNICEF estimates from UNICEF-MOPE study (2018) data

Further, the study revealed huge variations across regions within the country in terms of student performance. Six regions (Karakalpakstan, Fargana, Khorazm, Bukhara, Surkhadarya and Sirdarya) has high concentration of low performers compared to regions such as Jizzak, Navoi and Tashkent, highlighting the need to look at region-specifc challenges in learning.

Graph 17. Proportion of students by performance level by regions (UNICEF-MOPE) 2018 study (overall score)

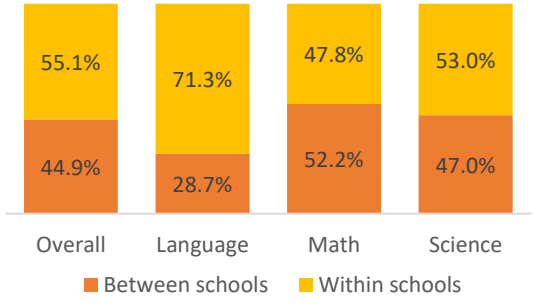


Source: UNICEF estimates from UNICEF-MOPE study (2018) data

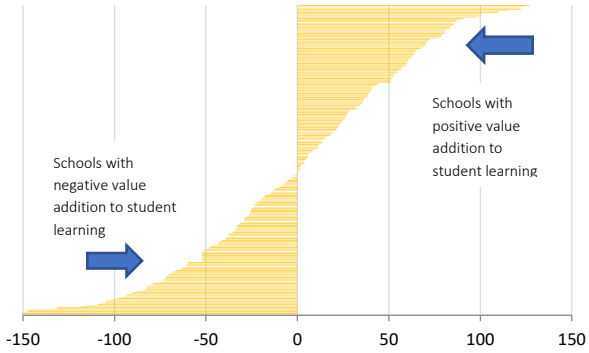
The analysis of variance (ANOVA) results show that overall, 45% of the variances in learning is explained by the differences between schools. This means that the differences in school endowment, including

school location, resources, infrastructure, teaching learning materails and teachers - explains a large part of students‘ performance. This is more evident in Mathematics and Science test results than in Language/Reading, where the variations within schools (mainly across different students and their household factors) are more important.

Graph 18. Variations in students' learning scores: Contributions of school factors and within school factors (UNICEF-MOPE study, 2018)



Graph 19. The average Value Added by schools - the top and bottom schools



Source: UNICEF estimates from UNICEF-MOPE study (2018) data

As UNESCO (2005) points out, “there are seven major policy areas for attention in general school education sector. The first six are directly related to teaching and learning: establishing appropriate goals for the curriculum, developing relevant content, using time well, ensuring that teaching styles are effective, carefully considering the language of instruction and developing a sound assessment policy. The seventh one deals with enabling inputs that indirectly support quality teaching and learning: the supply, distribution and use of learning materials and a secure, accessible physical environment with appropriate facilities[46]“. These issues are taken up for analysis in the context of Uzbekistan below.

Content of General secondary Education

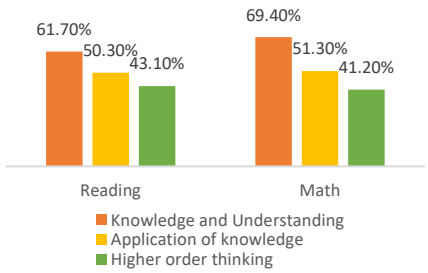
An analysis of existing curriculum in Uzbekistan shows that there is too much focus on imparting “knowledge“ directly than enhancing the skills of children to learn and apply knowledge. The World Bank (2018)‘ s Survey of Socio-emotional Skills in Uzbekistan, covering over 2000 students in 30 schools in Tashkent city and another 30 schools Tashkent region asked grade 9 students self-rated their levels of socio-emotional skills over a diverse set of socio-emotional facets. On an average, the surveyed students evaluated their skills below mid-point, especially in the domains of „Engaging with others“, “Managing Emotions“ and “Broadening horizons“. There were gender differences in the domains of Managing negative emotions with girls systematically reporting lower levels of self-confidence, resilience under stress management and frustration tolerence[47].

The recent UNICEF-MOPE (2018) study also reveals that while a large proportion of children “know“ what they are taught in classrooms (around 62% in Language and 69% in Math), only half of the students have skills to apply their knowledge and only around 41-43% know how to use it. More specifically, in the reading / Language test, nearly 59% students could locate /identify an information presented in the text, only 47% could make an evaluation of the content presented in a paragraph or story. In

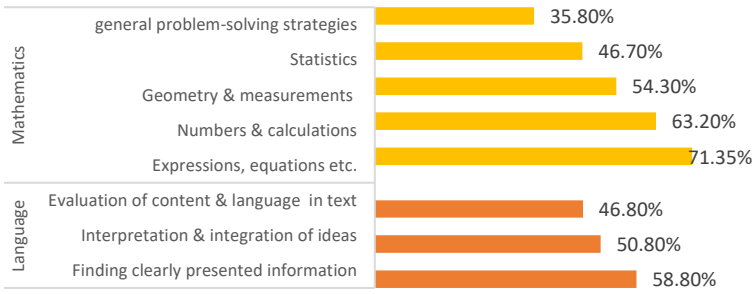
[46] UNESCO 2005: Education for All – Global Monitoring Report “The Quality Imperative” – p. 146
[47] World Bank (2018): *Draft* Education Sector Analysis, (as on 15 October 2018)

Mathematics, while 63% could work with numbers and calculations, only 36% students demonstrated ability for problem solving strategies.

Graph 20. Proportion of children by their achievements in subject competencies in grade 4 (UNICEF-MOPE 2018 study



Graph 21. Grade 4 students and competencies: UNICEF-MOPE 2018 study



Source: UNICEF estimates from UNICEF-MOPE study (2018) data

The current State Educational Standards as laid out in Annex 1 to the Resolution of the Cabinet of Ministers #187 of 06 April 2017 "On approving of the State Educational Standards for General Secondary, Secondary Specialised and Vocational Education", specifies "soft skills" such as:

- developing independent and creative thinking skills, with the ability to formulate and substantiate opinions verbally and in writing;
- demonstrating a critical approach to various situations, with a "constant drive to the news";
- being able to use up-to-date information and communication technologies; and
- having strong practical skills of using up-to-date information technologies.[48]

Generally, state educational standards exist at all levels of continuing education (general secondary education, professional education, higher education). The State standards regulate the content of school subjects.

Table 6. Content of school subjects as specified in the existing standards in the General Secondary cycle

Grades 1-4	Grades 5-11	
• Native language (Uzbek, Karakalpak, Russian, Kazakh, Tajik, Kyrgyz, Turkmen) • Uzbek/Russian (as second language) • Foreign language • Reading • Mathematics • "The world" (Grades 1-2), "Nature" (Grades 3-4) • Musical culture • Fine arts • Ethics • Arts and Crafts • Physical education	• Native language and literature (Uzbek, Karakalpak, Russian, Kazakh, Tajik, Kyrgyz, Turkmen) • Official language (Uzbek language in schools where tuition is in minority languages) • Foreign language (English, German, French) • History • Foundations of the state and law • Basics of economic knowledge • Mathematics • Computer Science • Physics and Astronomy	• Chemistry • Biology • Geography Sense of Motherland • The idea of national independence and the basis of spirituality (morality) • Fine arts • Musical culture • Drawing • Domestic and Industrial Arts • Physical education • Job training

[48] *Cf.* Annex 1 to Resolution #187 of the Cabinet of Ministers, Annex 2, Chapter 4 §2(17) "General requirements for the graduates of the secondary specialised and vocational education institutions".

Clearly, the existing curriculum is too content and subject driven and not sufficiently addressing the competencies and skills that are important for children to do well throughout life. As elaborated in Global Monitoring Report of 2005, "an inclusive approach to curriculum policy recognizes that while every learner has multiple needs – even more so in situations of vulnerability and disadvantage – everyone should benefit from a commonly accepted basic level of quality education[49]". While the Government, with support from UNICEF, is currently working on the revision of curriculum to make it more conducive for competency-based learning, it is equally important to produce all supportive teaching-learning materials, such as text books and to train teachers on the use and assessment of the new curriculum during the ESP II period.

Methodology (pedagogy, time-on-task, nature of tasks)

The McKensey (2007) report states that "the only way to improve outcomes is to improve instruction" and that the the quality of outcomes of any school system is essentially the sum of the quality of instruction that its teacher deliver.[50] Instructional time -the length of time required to achieve educational goals - is a matter of considerable significance and a strong indicator of students' access to learning opportunities. School effectiveness research shows consistent positive correlations between instructional time and students' achievement at both primary and secondary levels. The World Bank estimates that 850 to 1,000 effective hours (not necessarily official hours) of schooling per year is optimal in publicly financed primary schools[51]. As Benavot (2004) pointed out, "increased instructional time enhances learners' exposure to knowledge and results in correspondingly significant learning gains"[52].

In Uzbekistan, the students are expected to study several subjects throughout the grades. While non-core-academic subjects are important for children's overall development, some of these content could be well integrated into the regular subject curriculums. There is a need to rationalize the content of these other subjects to ensure that the core subjects get adequate time in schools. An analysis of the current prescribed instructional time in Uzbekistan classes show that the instructional time is low in the country compared to 850-1000 effective hours estimated by the World Bank (2004). See table 7 below. The analysis shows there is already a time-loss for core subject teaching and learning.

The MOPE is concerned about the workload on students and teachers and is planning to take further measures to reduce the same. The analysis by UNESCO (2005) GMR shows that Intended instructional time – the maximum amount set out in national curriculum statements – is not the same as actual learning time. Studies in developed countries[53] reveal disparities between intended instruction time, actual time allocated in schools, the time learners spend actually learning ('time on task') and the time they spend on academic tasks ('academic learning time')[54]. However, in Uzbekistan, there is no study on

[49] UESCO 2005. Education for All Global Monitoring Report "The Quality Imperative"; p.147
[50] McKensey (2007): How the World's best performing school systems come out on the top?"
[51] World Bank 2004. *Books, Buildings, and Learning Outcomes: An Impact Evaluation of World Bank Support to Basic Education in Ghana*. Washington, DC, World Bank Operation Evaluation Department.
[52] Benavot, A. 2004. *Studies on instructional time*. Background paper for *EFA Global Monitoring Report 2005* through the UNESCO International Bureau of Education, Geneva
[53] OECD. 1996. *Instructional Time in the Classroom*. Center for Education Research and Innovation, Education at a Glance, OECD Indication. Paris, Organisation for Economic Co-operation and Development.
[54] Benavot, A. 2004. *Studies on instructional time*. Background paper for *EFA Global Monitoring Report 2005* through the UNESCO International Bureau of Education, Geneva

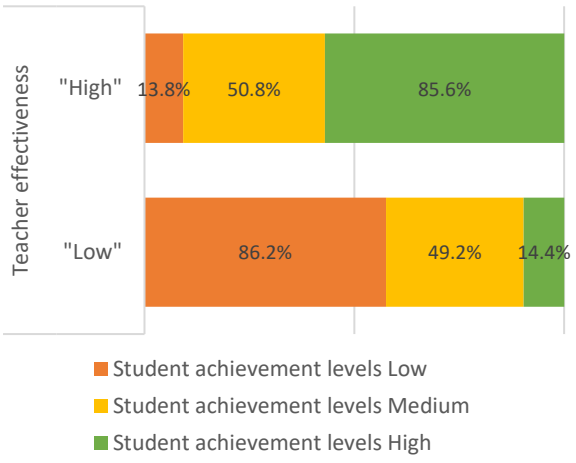
the instructional time use or quality to guage the effective learning hours available for children. In any case, instructional time and methods is an area that the Government needs to provide utmost attention.

Table 7. Academic Instructional time as per curriculum prescription in Uzbekistan						
Grade	Total periods (of 40-45 minutes) on all subjects		In hours – all subjects (of 60 min)	Total periods (of 40-45 minutes) on academic subjects		in hours, time on academic subjects (of 60 min)
	In a week	In a year	In a year	In a week	In a year	In a year
1	22.5	742.5	494	16	528	352
2	24	816	544	18	612	408
3	26	884	663	20	680	510
4	26	884	663	20	680	510
5	30.5	1037	778	23.5	799	599
6	32.5	1105	828	25.5	867	650
7	34	1156	867	26.5	901	676
8	34.5	1173	880	29	986	740
9	37	1258	943	31	1054	791
10	36	1224	918	22	748	561
11	36	1224	918	18	612	459

Source: UNICEF (2018) estimations using data provided by Republican Education Center

It is not only the instructional hours, but the way teachers teach is of critical concern in any reform designed to improve quality. It is obvious from the learning outcomes that commonly used styles and methods of teaching are not serving children well. Available research indicates a wide variation in effectiveness among teachers in teaching methodologies. Good teachers are more effective with learners of all achievement levels no matter how heterogeneous their classrooms. If the teacher is ineffective, his or her students are more likely to perform at lower levels[55]. More recent work[56],[57]confirms these findings. International evidence suggests that exposure to a high-quality teacher during a school year produced improvements of 0.2-0.3

Graph 22. Teacher effectiveness and student achievements in Uzbekistan: evidence from UNICEF- MOPE (2018) study



[55] Wright, S. P.; Horn, S. P.; Sanders, W. L. 1997. Teacher and Classroom Context. *Personnel Evaluation in Education,*Vol. 11: 57–7.; as cited in UNESCO (2005) GMR

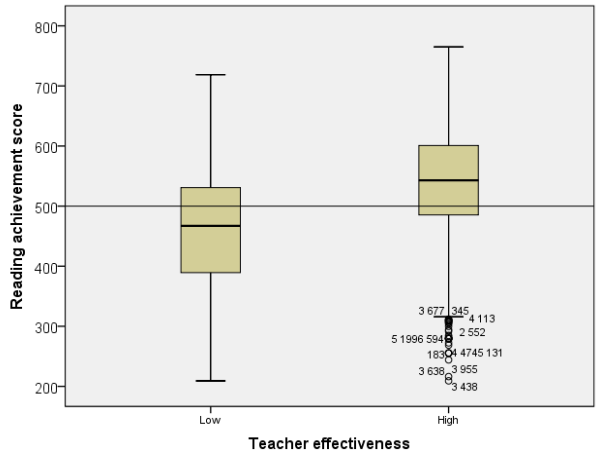
[56] Babu, S.; R. Mendro. 2003. *Teacher Accountability: HLM-Based Teacher Effectiveness Indices in the Investigation of Teacher Effects on Student Achievement in a State Assessment Program.* Paper delivered to the American Educational Research Association Annual Meeting, Chicago, April 21–25.; as cited in UNESCO (2005) GMR

[57] Rivkin, S. G.; Hanushek, E. A.; Kain, J. F. 2002. *Teachers, Schools and Academic Achievement.* University of Texas-Dallas, Texas Schools Project; as cited in UNESCO (2005) GMR

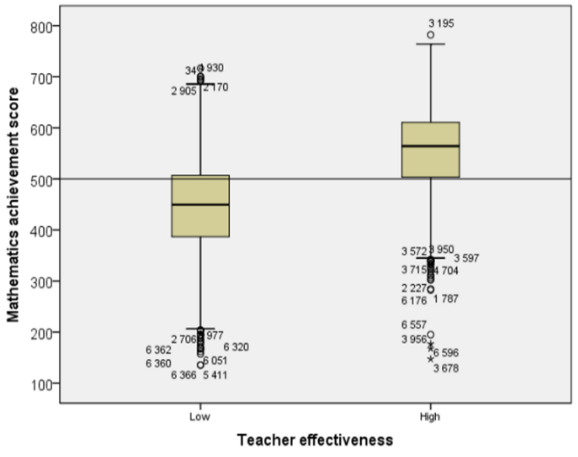
standard deviations[58], can affect children's ability to control their thoughts, actions, and emotions, which are also key for learning[59], and is associated with their students' opportunities to access higher education and even with higher future earnings[60],[61] (Chetty, Friedman, & Rockoff, 2014; Chetty, Friedman, & Rockoff, 2012).

An important finding of the UNICEF-MOPE (2018) study is the vast diversity in the competence and effectiveness of teachers across the country and its impact on the student performance. Teacher effectiveness is measured based on various parameters identified through a principal component analysis. The results reveal that effective teachers have high performing classes – indicating that effective teachers contributes positively to students' overall performance. Indeed, these results confirm that much can be done to significantly improve education by improving teacher effectiveness, which in turn, requires attention to pedagogy and the way teachers teach[62].

Graph 23. Teacher Effectiveness and Reading achievement levels



Graph 24. Teacher Effectiveness and Mathmatics achievement levels



Source: UNICEF estimates from UNICEF-MOPE study (2018) data

In the spectrum running from traditional 'chalk and-talk' teaching to 'open-ended instruction', many educators advocate structured teaching – a combination of direct instruction, guided practice and independent learning. Open-ended and discovery-based pedagogies involve high level cognitive skills such as comprehension, the application of knowledge, divergent thinking and problem solving UNESCO (2005) GMR on "The Quality Imperative" provides a set of examples of programmes world wide and their characteristics. The characteristics of such programmes are listed in the table 8 below. The education system in Uzbekistan may learn from some of these examples and introduce innovative, alternative and flexible pedagogical practices during the ESP II period.

[58] Kane, T.J and D.O. Staiger (2008): Estimating Teacher Impacts on Student Achievement: An Experimental Evaluation; NBER Working Paper No. 14607

[59] Araujo, M.C; P. Carneiro; Y. Cruz-Aguayo and N. Schady(2016): Teachr Quality and Learning Outcomes in Kindergarten; Inter-American Development Bank (IDB) Working Paper Series Nº IDB-WP-665

[60] Chetty, R., J.N. Friedman, and J. E. Rockoff (2014): Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood; American Economic Review; Vol 104; No. 9

[61] Chetty, R., J.N. Friedman, and J. E. Rockoff (2012): The Long term Impacts of Teachers: Teacher Value-Added and Student Outcomes in Adulthood; NBER Working Paper No. 17699

[62] UNESCO (2005): Education for All Global Monitoring Report – The Quality Imperative.

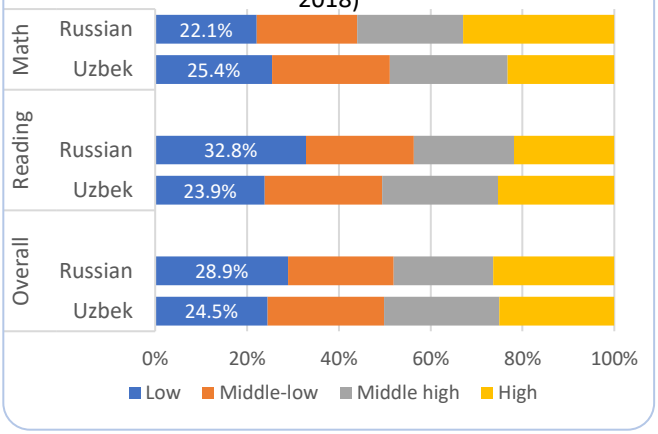
Table 8. Open-ended and discovery based instruction -characteristics of programmes from many examples:

- child-centered rather than teacher-driven pedagogy;
- active rather than passive learning;
- multi-grade classrooms with continuously assessed learning;
- combinations of fully trained teachers, partly trained teachers and community resource people, all of them heavily involved in learning and in school management;
- peer tutoring among learners;
- carefully developed self-guided learning materials;
- teacher- and student-constructed learning materials;
- active student involvement in school governance and management;
- use of radio, correspondence materials, television in some cases and computers in a few cases;
- ongoing and regular in-service training and peer mentoring for teachers;
- ongoing monitoring, evaluation and feedback systems;
- strong links between the school and the community;
- attention by the community to children's nutrition and health long before they reach school age; local adaptations of the school day or school year cycle;
- a school focus on learning rather than teaching.

Source: UNESCO (2005) GMR – The Quality Imperative; p. 153

Another important part of methodology in education is related to language of education. Initial literacy is acquired more easily in the mother tongue. Pedagogically sound language policy – allowing children to learn in their mother tongue for at least their first few school years – has a positive impact on learning[63]. The UNICEF – MOPE (2018) study on the profile of children with low learning levels show that children who study in Russian medium classes (around 60% of whom don't speak that language at home) performed worse in reading than those who study in Uzbek medium classes, thus confirming to a large number of evidences from around the world that children who speak the language of instruction at home, tend to have higher achievement.

Graph 25. Performance of students by Language of instruction (UNICEF-MOPE study 2018)



Source: UNICEF-MOPE study (2018)

An important development in the area of pedagogy and teaching learning process is the introduction of Computer Aided Learning (CAL) and Information-Communication Technology (ICT) enabled learning. Computer Aided Learning (CAL) is an integrative technology, which describes an educational environment where a computer program is used to assist the user in learning a particular subject. It refers to an overall integrated approach of instructional methods. Computer aided learning is a

[63] UNESCO (2005): Education for All Global Monitoring Report – The Quality Imperative

device/learning strategy to make teaching more interesting joyful and sustainable. The ICT at school programmes in many countries[64] have essentially the following four components:

- Providing/ equipping all general secondary schools with computers and other ICT related equipment
- Establishment of "smart" schools which shall be technology demonstrators
- Teacher related interventions, including capacity enhancement of teachers in ICT use
- Development of e-content.

ICT at schools presents an opportunity for students and schools to bridge the digital divide. Unfortunately, at present, only 7% of the general secondary schools in Uzbekistan use any form of ICT-enabled education.

Assessment of learning

The monitoring and assessment of the educational quality and standards has been based on (i) a rating system of quality control of students' knowledge; and (ii) the monitoring of academic achievements of students, measured through classroom assessments. The rating system of quality control of students' knowledge is to systematically analyse the degree of acquisition of children's knowledge and skills, for each school subject. Currently, there are four levels for tracking and monitoring of learning outcomes.

Table 9. Current levels for tracking and monitoring learning outcomes

Level	**Methodology**	**Comments**
Ongoing monitoring	Carried out by the teacher directly in the classroom through a survey of colloquia, seminars, tests, examinations	
Interim control	Carried out by the end of the quarter, at city and oblast level or after a specific chapter of the curriculum. Held in the form of examinations, tests, trials and other studies related to determining the level of knowledge and skills	This information is also used to monitor the teachers' knowledge and determine yearly training plans
Grade level monitoring	Carried out in the form of examinations, tests, or tests associated with determining the level of knowledge and skills acquired at this stage of education, for example, class 5 or 8.	Subjects, the volume, the topics, dates and types of tests for the level control are determined by Republican Centre for Education (REC) under MoPE. Teachers also take part in designing tests. The State Testing Centre prepares the materials (questions, exercises, tests, etc.). **Teachers can adjust the assessment material (in questions, assignments, tests, etc., with the exception of the subject, the timing and types of tests).** Adjustments agreed at the first methodical association of educational institutions. Results of level control would be the basis for the transfer of the child to the next grade, although in practice all students progress.[65]
Final control	Held after Grades 4, 9 and 11, in the form of state examination, followed by certification	Subjects, the volume, the topics, dates and types of tests for the level control are determined by State Educational Inspection under MoPE. **Teachers cannot make adjustments to the final control materials.**

[64] For example, see http://mhrd.gov.in/ict_overview

[65] Verbal information received by the Chief of Directorate-General of Attestation & Accreditation, State Inspection for Supervision of Quality in Education under the Cabinet of Ministers.

Thus, through a systematic monitoring system, the students' academic achievement levels are tracked. Monitoring of learning achievements of students is conducted annually according to the scheme presented in the chart below. Subjects, the volume, the topics and types of tests are defined by MoPE. However, this **procedure is about to change** in light of the new responsibilities of the State Inspection institution, and the revised qualitative standards according to Resolutions # PP-2909 and #515 (Cabinet of Ministers) as detailed in an earlier section.

Table 10. Scheme for monitoring learning achievements in the 2017/2018 academic year

Monitoring entity	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
General education schools	Assessment of all students in all subjects	Assessment of all students in all subjects	Assessment of all students in all subjects	Assessment of all students in all subjects
District monitoring departments[66]	Assessment of 3-5 subjects in Grades 4, 5, 6 and 7	Assessment of 3-5 subjects in Grades 4, 5, 6 and 7	Assessment of 3-5 subjects in Grades 4, 5, 6 and 7	Assessment of 3-5 subjects in Grades 4, 5, 6 and 7
Regional	Focus on minimum 2-3 subjects, different Grades[67]			
National (MoPE)[68]		Assessment of: Grades 4 (Maths, Native Language, English, Nature) Grades 8, 9 and 10 (Maths, Native Language, Russian, additional Foreign Language, Biology, Chemistry, Geography, History, ICT)		Assessment of: Grades 4 (Maths, Native Language, English, Nature) Grades 8, 9 and 10 (Maths, Native Language, Russian, additional Foreign Language, Biology, Chemistry, Geography, History, ICT)

Teacher Professional Development

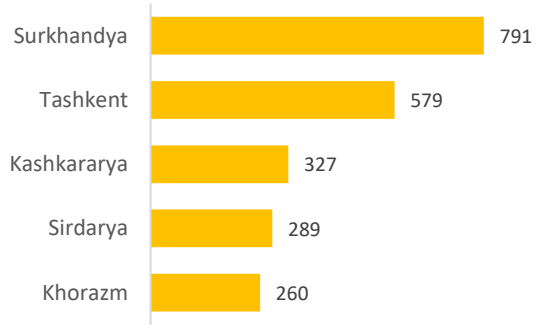
Realization of efforts to improve education quality largely depends on the policies that contribute to attracting, developing and retaining effective teachers. A growing number of empirical literature in different countries and education systems proves that teacher effectiveness is the most important school-based predictor of children's achievements[69]. Evidence shows that education quality improves when teachers are prepared and supported – it deteriorates if they are not[70].

There are 407,705 General secondary education teachers in the country, of which 85% work in rural areas. Around 2/3rds of the teachers are female. The Pupil-Teacher Ratio (PTR) at general secondary

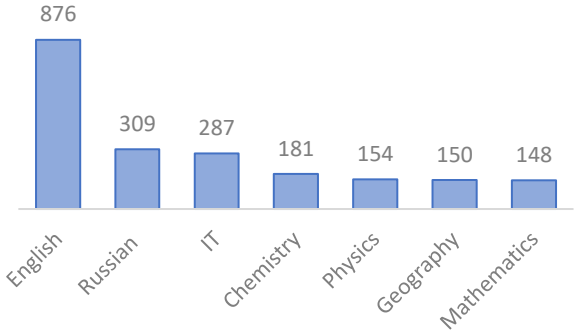
[66] There are Monitoring Departments within each District Department of MoPE. There are 12-15 Districts within each Region.
[67] Different level of analysing materials, more subject based, oblast level data collected at oblast level.
[68] Results published and distributed internally only. Not publicly available, but parents can approach respective school to access the data.
[69] See for example Hanushek & Rivkin 2010; Rivkin, et al. 2005; Nye et al. 2004; Rockoff 2004; Park & Hannum 2001; Sanders & Rivers 1996.
[70] http://unesdoc.unesco.org/images/0022/002256/225660e.pdf

level in Uzbekistan is quite low at around 13:1, with the highest ratio in Tashkent City (21:1) and the lowest in more sparsely populated oblasts such as Karakalpakstan and Navoi (9:1)[71]. However, low PTR does not automatically translate into small class sizes, as the anecdotal evidences suggest more students in each section on an average. Another point to note is that inspite of having a very low PTR in the country, teacher shortage is reported in many schools in several regions of the country. Teacher shortages are also reported in specific subjects – for example, more than 800 teacher vacancies are reported for English teachers and more than 200 vacancies for IT teachers.

Graph 26. Teacher shortage (#) in selected regions: 2018



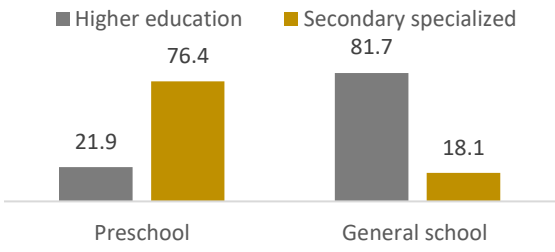
Graph 27. Teacher shortage (# of vacant positions) by subjects



Source: UNICEF (2018) Teacher Work force policy review

The Education Sector Analysis (World Bank, 2018) and the Situation Analysis (UNICEF 2018) shows that most of the teachers in general secondary education – around 84% - have higher education qualifications. In Tashkent city, 95% teachers have higher education degrees while in Kashkadarya, only 71% have higher degrees. This is in contrast to the proportion of qualified teachers in preschool education sub-sector, where only 22% teachers have higher education qualifications.

Graph 28. Proportion of teachers by qualification in preschool and general secondary schools in Uzbekistan: 2017



Teacher Compensations: The Salary and non-salary benefits[72]

Teachers in Uzbekistan are hired on a contractual basis, as is the norm in th ecountry, though most contracts are for an indefinite term, providing teachers with job-stability. However, teachers' base salary, till recently, continued to be among the third lowest among the economy sectors in the country. See table 12. The salaries provided in the table concern only the public sector. If the data from private sector salaries are included, then the figures of teacher salary may even look further underpaid for the people with same qualifications.

[71] World Bank (2018): Preliminary findings on Education Sector Analysis, as on 17 May 2018

[72] This section is drawn mainly from two UNICEF (2018) Reports: (i) "Gaps and Limitations in Teacher-Related Legislation in Uzbekistan" and (b) System Assessment for Better Education Results (SABER) for Teacher Policy review in Uzbekistan".

Table 11. Monthly average accrued nominal salary in the sectors of economy (thousands of sums) in 2015 & 2016		
Sector	Monthly average salary, 2015 (including taxes)	Monthly Average salary, 2016 (including taxes)
Finance, credit and Insurance	2627.8	3241.1
Information and Communication		2744.4
Industry	2456.1	2643.6
Construction	2217.5	2345.9
Transport and Communication	2034.5	2368.4
Trade, food, sales, procurement	1950.7	2244.7
Entertainment and receration		1652.7
Housing and Communal services, non-production consuler services for the population	1515.5	1151.1
Education, culture, science and art, scientific services	1220.5	1348.9
Health Care, physical culture and social protection	1100.0	1195.0
Forestry	808.6	
Other type of activity		1398.2

Source: Uzbekistan in figures, State Statistical Committee (2016)

In Uzbekistan, teachers' base salaries are established for the five teacher categories. Progression from one category to the next is possible through a system of attestation. Till recently, when a teacher passes attestation and is promoted to the next category, they receive a salary increment of roughly around 6%. An analysis of the salaries of teachers in primary and secondary schools reveal an inconsistency: while the required education qualification for primary school teachers is lower[73]than the requirement for secondary school teachers, primary school teachers receive a higher base salary than the latter by 8-12%.

Teachers' base salary makes up only a part of their take-home amount. In Uzbekistan, time spent on checking students' written works and classroom management is remunerated as well. In addition, the Director's Fund in each school provides bonus to nearly half of all teachers each year. The Director's Fund is set at 15% of a school's payroll. The specific amount of the Director's Fund, as percentage of the labor remuneration fund, is determined by the Ministry of Finance for the financial year, based on the volume of budget expenditures for labor. All schools receive this allocation to reward teachers who are judged to be good performers. In addition, parents alos make some contribution to this Fund.

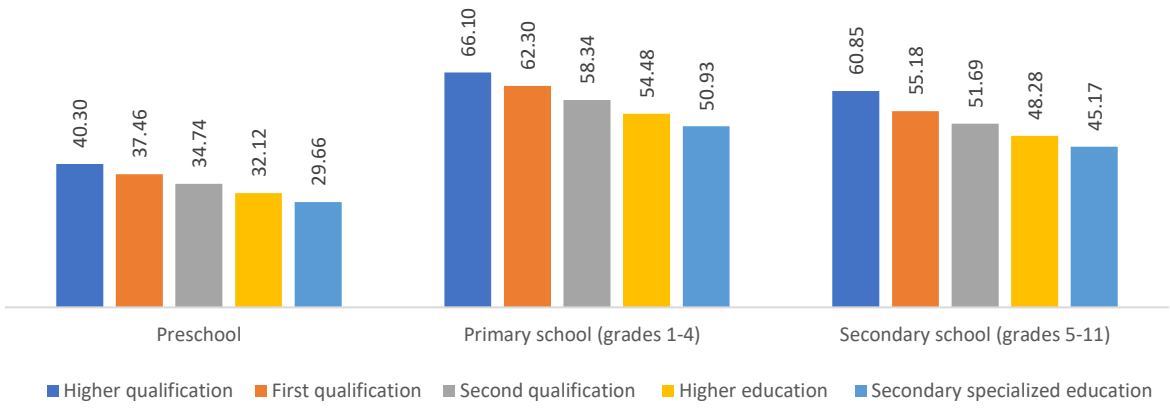
At the same time, no more than 50% of the total number of teachers could receive bonuses from Director's Fund. Decisions on setting monthly increments to base pay rates of teachers, one-time bonuses, and provision of material assistance to employees of general education institutions are taken by special commissions established under general educational institutions[74]. The special commission meetings are held, as a rule, once every six months, or in exceptional cases - as needed. Based on the results of teacher performance assessments for previous academic periods (quarter, half year, etc.) and

[73] Only secondary specialized pedagogical education in the field of primary education is required for elementary school teachers whereas secondary school teachers need a bachelor's degree.

[74] Special commission include: Principal - chairperson of the commission; Deputy Principal for Academic Affairs, responsible for in-school monitoring - executive secretary of the commission; At least two teachers authorized by the decision of the teacher council; Chairman of the trade union; At least two representatives of the parents' committee of the general educational institution.

taking into account the changes in the quality of work of individual teachers, the salary increments set by the special commission may be revised or canceled.

Graph 29. Base monthly salary of teachers per month by category (in thousand soums)



Source: UNICEF (2018)

Multiple shifts in General Secondary Schools

About two-thirds of the schools in Uzbekistan operate in multiple shifts and this is more prevalent in semi-urban and urban areas. The prevalence of multiple shifts in schools indicate that the availability of school facilities have not been commensurate with the increase in enrollments. Schools that are required to operate in shifts do often face challenges that impede on the quality of service delivery, such as the need to: (i) condense instructional time to accommodate two shifts; (ii) share classrooms and furniture among students of different age groups; and (iii) eliminate extracurricular activities and clubs[75].

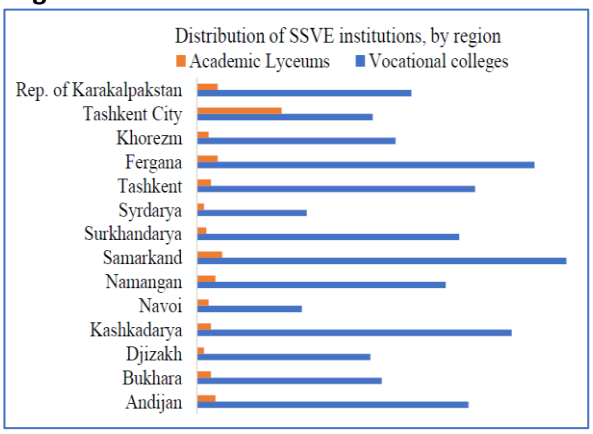
3.5.3 Professional Education

The Professional Education (earlier known as the Secondary Specialised Professional Education (PE - previously SSPE) System under the authority of the Ministry of Higher and Secondary Specialised Education (MoHSSE). PE was a compulsory continuation of General Secondary Education, lasted 3 years and was conducted in either Academic Lyceums or Vocational Colleges. The main body within the PE system is the Centre for Professional Education (CPE – earlier known as the Centre for Secondary Special Professional Education (CPE (previously SSPE)) under the authority of MoHSSE.

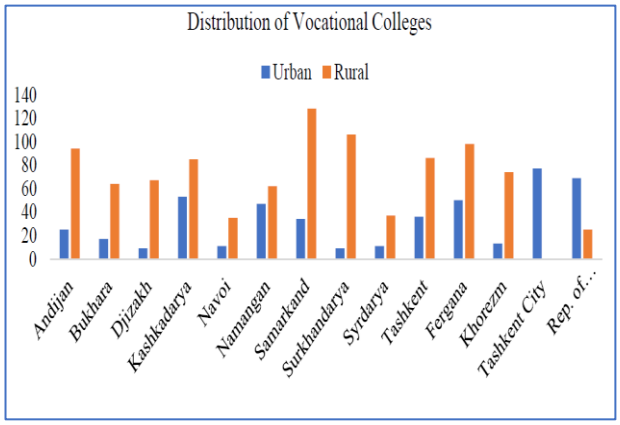
The vocational education and training (VET) system in Uzbekistan is very large, and in some regions, it is the only option available. It includes almost 10 times more institutions than the non-vocational stream provided in academic lyceums and hosting 9 in every 10 students enrolled in PE[76]. Moreover, the share of students attending VET in Uzbekistan (87 percent of the total number of students enrolled in PE) is significantly higher than in other countries, such as Czech Republic (73 percent), Austria (70 percent), Romania (56 percent), Poland (49 percent), and Spain (34 percent)[77].

[75] World Bank (2018): Preliminary findings of Education Sector Analysis, as on 17 May 2018
[76] The Word Bank (2017)
[77] The World Bank (2018)

Graph 30. Distribution of SSVE institutions by Region



Graph 31. Distribution of Vocational Colleges



Source: World Bank (2018) draft Education sector Analysis, cf MOHSSE

PE (previously SSPE) offers training in 6 fields for 242 professions, which are divided into around 695 speciality profiles with a strong emphasis on Production and Technology (i.e. engineering and other technical occupations), followed by the Social Sphere (including Economic and Law) and the Humanities (including Education), as well as the arts and humanities. The subjects taught can be categorised as general subjects, general vocational subjects and specialised vocational subjects.

According to Center for Secondary Specialized Vocational Education (CSSVE), as of January 2018, SSVE /PE (previously SSPE) comprised 144 academic lyceums (9,500 teachers, 35,100 students) and 1,566 vocational colleges (1.459 million students, 100,200 teachers). Following the Resolution of the Cabinet of Ministers #961, dated 01 December 2017, with regard to the "introduction of 11-year secondary education through the provision of mutual integration of general education schools and secondary specialised vocational educational institutions"[78], the scope of the PE (previously SSPE) sub-sector changed significantly. Firstly, PE (previously SSPE) is not compulsory anymore (and is now being referred to as *Professional Education*), and students can elect to enter the labour market after Grade 11, i.e. after the end of their General Secondary Education. Secondly, the duration of courses at Vocational Colleges has been reduced to between 6 months and 2 years (Pedagogical Colleges always 2 years), depending on the vocational skills required for a specific profession.

What used to be the Centre for Secondary Special Professional Education, has become the **Centre of Professional Education** (CPE) which is now responsible for all methodological support and for qualification enhancement and retraining of pedagogical staff of colleges (preservice and in service)[79], still under the authority of MoHSSE (as before with the CPE (previously SSPE)). CPE was created following the decree of the President dated 25 January 2018, with the prime objective to modernise Professional Education with regards to (i) structure, (ii) content, (iii) enrolments, and (iv) duration of courses (in line with the changes necessitated by the switch from the previous compulsory 3-year system to a facultative system of between 6 months and 2 years).

The specialised vocational educational institutions, also referred to as **Professional Colleges** offering the acquisition of professional skills as preparation for accessing the labour market, are now under the

[78] Chapter 3, §1 (2), English translation provided by UNICEF.
[79] The Colleges themselves are under the responsibility of their respective ministries.

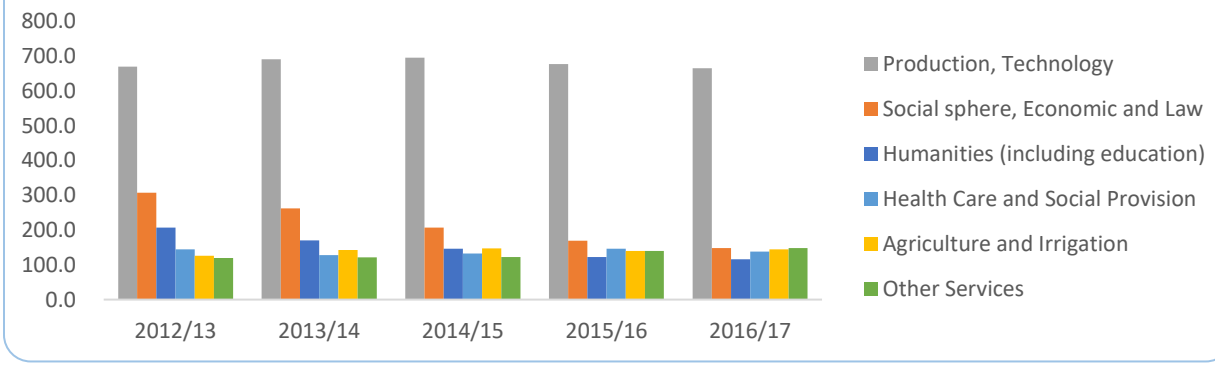
authority of their respective Ministries,[80] except for aspects related to methodological support, qualification enhancement and retraining. The coordination of the activities of Professional Colleges rests with the *Khokimkiyat*, i.e. the local authorities at the oblast level.

Up until January 2018, 1,422 professional colleges were active in Uzbekistan. Under the responsibility of the **Republican Commission on Coordination of Further Improvement of the System of Professional Education** (under the Cabinet of Ministers, headed by the Deputy Prime Minister) there is a current ongoing process of optimising the number of colleges. This process entails identification of responsible Ministries per college, and also proposals on possible "multi-profiling" of colleges in order to allow for a better flexibility in offering courses that respond to the demands of the labour market (as identified by the *Khokimkiyat*). The optimisation process will lead to a reduction of colleges at around 50% of the current number. Colleges will then have until the beginning of the school year 2019/20 to finalise their cohorts, before the eventual start of the new system. Colleges not selected for continuation as a college will continue as schools or practice centres (for the 1-day professional training in general secondary schools).

The reasons for reducing the number of Professional Colleges are partly due to the now non-compulsory vocational education, and also to the integration of elements of vocational education into General Education. Also, since the *Khokimkiyats* decide on a yearly basis what kind of specialists are really required for the labour market (based on demand), this will also generate an impact on the actual number of colleges required. Overall, the optimisation process with a focus on multi-profiling colleges will significantly enhance both the relevance of vocational education for the demands of the labour market, and will also foster flexibility of colleges whereby teaching can be switched from one specialisation to the other.

Academic Lyceums are under Higher Educational Institutions, together with universities and institutes. According to the Law on Education and the National Programme for Staff Training, both adopted in 1997, the aim of the academic lyceum is to provide learners with the opportunity to enhance their knowledge in a field of their choice and to prepare them for study at a higher education institution or for professional life.

Graph 32. Development of enrolments in 6 Spheres for 242 professions from 2012/13 until 2016/17 (in 1000's)



Source: MOHSSE

[80] In particular, being responsible for equipment, financing, budget and future employment of graduates from the colleges.

Until the school year 2019/20, the trilateral cooperation between students, colleges and companies continues as previously. In their second year of study, students sign a trilateral contract with the college and the company where they are expected to undergo practical training. The aim of the practicum is to give students an opportunity to apply their theoretical skills in practice, but also to allow potential employers to assess to what extent the student would fit into their working environment. Job fairs are another opportunity for students and graduates to establish contact with potential employers. The collaboration between the professional education system and the economy is based primarily on the following mechanisms:

- Students' practicum assignments;
- Labour marked prognoses and their implications for the vocational education system;
- Participation of the Ministry of Economy and representatives of the economy in the development of curricula and employers' involvement in final qualification exams;
- The strong affiliation of professional education educational institutions to companies.

From 2011 to 2016, on average 91.4% of graduates of vocational colleges found employment, thereof 47.5% in their specific professional field. On average, 2.7% were admitted to university,[81] and 5.9% did not find employment.

Table 12. Employment of graduates of Vocational Colleges, in thousands

	2011	2012	2013	2014	2015	2016	TOTAL
Number of graduates	430.2	501.5	501.4	495.2	482.6	477.8	2,888.7
Graduates who found employment	403.0	457.4	439.2	446.0	453.2	442.6	2,641.4
Employment rate (general)	**93.7%**	**91.2%**	**87.6%**	**90.1%**	**93.9%**	**92.6%**	**91.4%**
Employment in own prof. field	176.2	204.2	181.5	186.6	252.8	252.8	1,254.1
Employment rate (own profession)	**43.7%**	**44.6%**	**41.3%**	**41.8%**	**55.8%**	**57.1%**	**47.5%**

Data Source: MoHSSE

The trilateral cooperation in its present form will cease as from the school year 2019/20, when the new structure will have taken root and will be fully implemented. Nevertheless, it can be reasonably expected that the good employment rate will continue, especially since graduates will have the possibility to make direct contact with their respective colleges and prospective employers before deciding to apply for admission into a college. Likewise, as from 2019/20 admission will be defined by Ministries and Companies (at present: the local authority) in line with their specific needs.[82]

Among the key challenges for the secondary specialised education system is the training and recruitment of qualified staff capable of preparing students for the requirements of the labour market. Due to the low status and salary of instructors for technical subjects, vocational colleges face serious difficulties in attracting experienced professionals from the industry and economy. The alignment of the

[81] Graduates of secondary specialised professional education institutions are eligible for entrance exams to higher education institutions.

[82] A comprehensive list of colleges and companies, also outlining specific responsibilities, is expected to be finalised by 01 July 2018. Following that deadline, there remains one full year to prepare for the new system, and to allow for finalising the existing study cohorts at the colleges.

professional status of instructors for practical subjects with that of the teachers of general subjects in vocational colleges is a first step toward attracting experienced professionals.

Teacher training and re-training

Pre-service teacher training (for all teachers) takes place at the higher education system (institutes, universities). Students graduating from HEIs are eligible for teaching positions at the pre-primary and general secondary (grades 1 to 11) levels including all colleges and lyceums. Preschool teachers are allowed to teach with a qualification from a pedagogical college[83], although the intention is to change that in the medium term, so that all teaching staff working in groups for preparing children for school have a higher education qualification.

All **pedagogical retraining for staff at professional colleges** is carried out under the responsibility of the *Institute of Innovative Development, Qualification Enhancement and Retraining Pedagogical Staff of System of Professional Education under CPE of MoHSSE.*[84]

Training lasts one month (24 days, 144 hours plus 5 hours preparation for distance learning). The curriculum for in-service training changes every three to five years based on a decree of MoHSSE. In-service training covers the areas of general knowledge, knowledge and skills related to the teaching profession in general, knowledge and skills related to the respective subject and actual topics. Of the overall 144 hours of face-to-face training, 82 are dedicated to practice in the teacher's field of specialisation, lesson development, and analysis of experiences. Practical hours include excursions to other educational institutions. In addition to the face-to-face training, there are 178 hours of distance training. At the end of the training, the participants take an exam.

Training participants are selected by regional branches of MoPE and the district (municipal) departments of education. Their task is also to follow progress in the teacher's work after the training. The monitoring of teachers' use of the acquired skills is primarily based on their students' knowledge. After attending an in-service training course, school principals are expected to develop a three-year work plan and report on its implementation at the next training.

In-service training for professional education teachers takes place at selected higher education institutions. The structure and functioning of the system is similar to the one in the general secondary education sector. The school proposes teachers for training, the responsible territorial department of secondary specialised professional education decides on training needs and has the final word in the nomination of participants. Based on this information, the **Centre of Professional Education**[85] (CPE) addresses the respective training institution with a request for training.

[83] While in the past the attendance of a vocational college was compulsory after General Education as an alternative to the attendance of an Academic Lyceum, this has now changed. The future role of Pedagogical Colleges therefore remains unclear (currently, Uzbekistan has about 50-60 Pedagogical Colleges country-wide, i.e. 2-3 in each oblast). Apart from preschool education, there are no immediate job opportunities for their graduates, and even that is about to be changed in the medium term. It might however still be interesting for students from foreign countries to get a Pedagogical College qualification since some neighbouring countries accept such qualification as a teaching diploma for general education (currently, 30% of students are from foreign countries). Nevertheless, alternative pathways for graduates need to be investigated, maybe following the model from the Ministry of Justice whereby graduates from professional law college are allowed to enter university at the 2nd level following their graduation from college.

[84] Cf. also chart Structure of the SSPE system in Appendix 4.

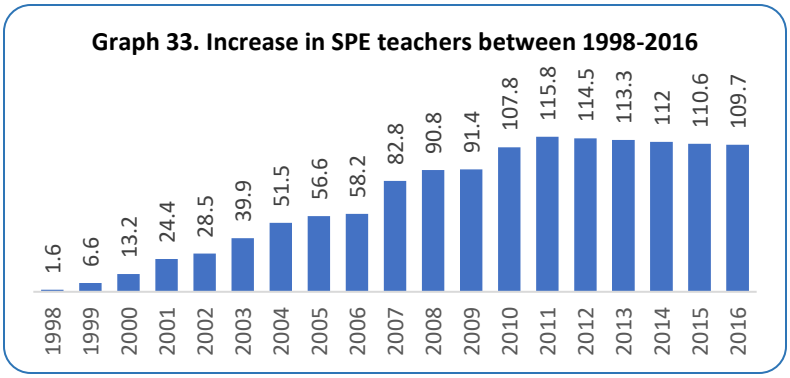
[85] Until 2017: Centre for Secondary Specialised Professional Education (CSSPE).

Following the restructuring of the general education system, **responsibility for all pre-service training activities has been shifted from MoPE to MoHSSE** (with the exception of the *Retraining and In-Service Institute of Managers and Specialists of System of Public Education named after A. Avloni* which remains under MoPE) which is now responsible for all pre-service and in-service training, thus resulting in a **single system of in-service training at all levels of the education system.**

With the adoption of the Resolution of the President No. 3931 dated September 5, 2018 provisions on the accountability will change as from November 1, 2018. Following that date, the *Regional Centres for Training and Advanced Training of Public Education Personnel* under higher educational institutions will be subordinate to MoPE.

The goal of the *Retraining and In-Service Institute of Managers and Specialists of System of Public Education named after A. Avloni* is to enhance leadership skills and professional excellence of managers and specialists of the public education system in accordance with the post and specialty, to ensure regular updating of their professional knowledge, competencies and skills in innovative management and information and communication technologies, the comprehensive enriching of their spiritual and educational level. The main tasks of that institute are:

- further improvement of professional abilities and skills of public education managers and specialists, providing them with new knowledge, developing the competence of effective use of advanced educational and information and communication technologies, including the global Internet;
- development of model curricula, programmes, teaching and methodological and regulatory documents on retraining and in-service training of public education system managers and specialists, taking into account the continuity and consistency of educational programmes through the use of interactive teaching methods aimed at the development of creative thinking skills;
- strengthening the skills of managers and specialists in organising and supervising teaching and educational and spiritual and awareness-raising work, as well as assessing the quality of education;
- ensuring a high level of educational process in retraining and in-service training of managers and specialists, developing a desire for scientific research, the development of independent thinking and creativity;
- development of scientific and methodological, organisational and methodological frameworks for introducing effective modalities (combined, distance-assisted, individual training, *ustoz-shogird,* etc.) of retraining and in-service training;
- increasing knowledge of managers and specialists in the specialty and education management;
- research and teaching/guiding work to improve the system of retraining and in-service training of public education system managers and specialists, training highly qualified pedagogic specialists in education management;
- introduction of evidence-based innovations using summary of international experience in retraining and in-service training of managers and specialists, as well as the achievements of the best educational institutions.



The introduction of mandatory secondary specialised professional education in 1997 has led to a steady increase in demand for teachers. The chart shows the increase in the number of professional education teachers between 1998 and 2016, then stabilising around 110,000-115,000 between 2011 and 2016.

Source: MOHSSE

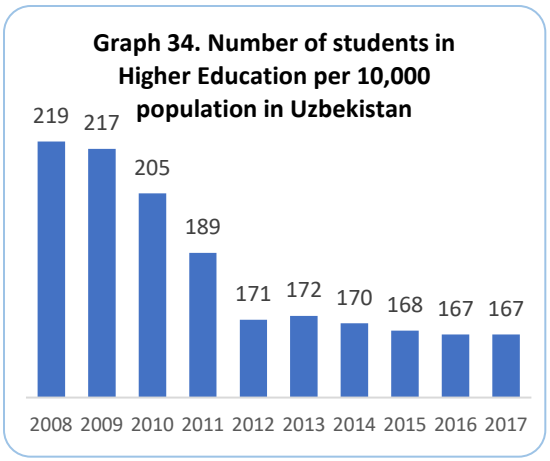
3.5.4 Higher Education

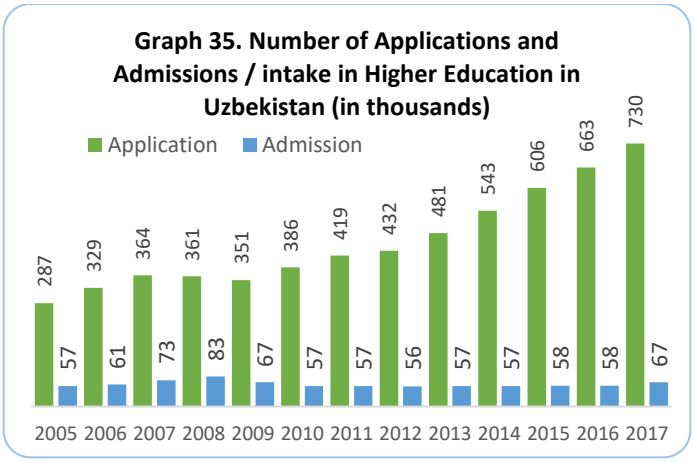
In Uzbekistan there are currently 85 national higher education institutions (HEIs), out of which 42 institutions are under the authority of MoHSSE.[86] In addition, there are eight branches of foreign universities, operating in partnerships with public institutions.[87] Although the Government Laws does not limit the participation of the private sector, including in higher education, their participation is limited. The degrees that can be obtained are the Baccalaureate (3 years of study), Master (2 years), and Doctorate (2 years).

The enrolments in higher education is increasing in absolute terms in recent years. In the academic year 2014/15, all HEIs together served 261,300 students. [88] By the academic year 2017/18, this figure has risen to 281,451. However, this represents a GER of only 9% in 2017. There is also an overall decline in GER from 17% in 1991. The number of students in higher education per 10,000 population in the country has been declining from 219 HE students a decade ago to 167 now. Of all the students currently enrolled in tertiary education in Uzbekistan, majority – around 95%- are attending a Bachelors level course. In 2017, only 4.5% of those who graduated from a Bachelors' programme in 2016 continued their studies at a Masters Degree programme (State Statistics Committee, 2018).

In Uzbekistan, as the government sets quotas for admission in higher education in the country, the main challenge is to increase the quotas to meet the rising demand for higher education. The gap between the number of applications for higher education and that gets admitted has been increasing, indicating that there is an increasing demand for higher education which is not matched by supply. On an average, for every 100 seats /quotas available for Bachelors' Degree course, there were 323 applications and for every 100 seats available for Masters' Degree programme, 263 candidates had applied[89]. In 2017, this meant that on an average, only 12% of the applicants for Bachelors' Degree courses managed to get admission in to the studies, while around 46% of applicants for the Masters' Degree programme managed to continue their studies[90].

[86] The other HEIs are under the authority of the Ministries of Health; Agriculture; Water; and Information/ Communication/ICT.
[87] Italy, Russia (N=3), UK, Singapore and South Korea.
[88] Education in Uzbekistan 2015. National Statistics Committee, p.168.
[89] State Statistics Committee (2018); p 177
[90] The World Bank (2018): *s* Education Sector Analysis (as on 15 October 2018)

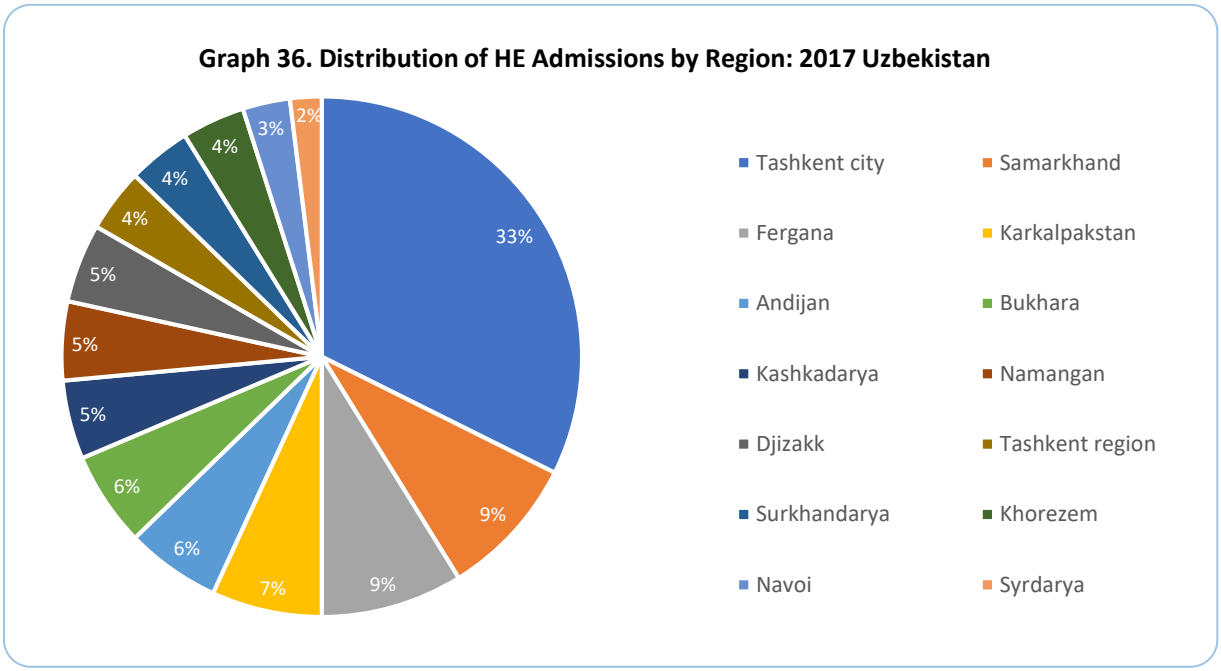




Source: https://gender.stat.uz/en/ & https://www.edu.uz/en/

A further disconnect between the number of admissions and the number of applications emerges from the regional disparities. As around 50% of the Higher Education Institutions are concentrated in the city of Tashkent, 38% of those admitted in HE was enrolled in Tashkent institutions. Samarkhand region accounts for 7% of the total HEIs in the country and accounts for 9% of all admissions. However, it must be admitted that no country in the world can have an equitable distribution of HEIs and seats across its regions. Some of these HEIs provide specialized services (for example, medical or technical education) and there is no need for such institutions to be set up in every region.

Another challenge in the country is that the entry system allows applying to only one university and study field at a time, which implies that prospective students that fail to obtain a place through national entry test conducted by the State Testing Center will have to wait at least one year for the next round of exams.



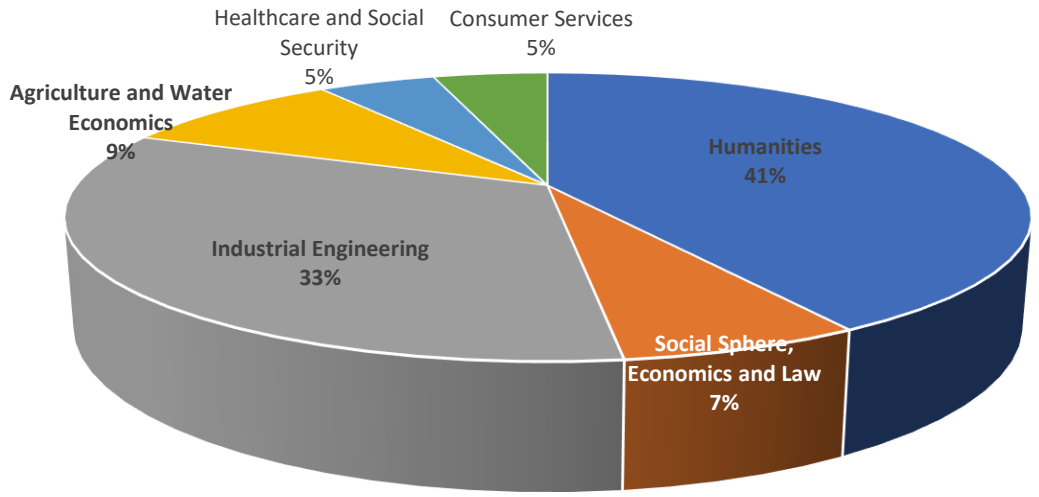
Source: State Statistical Committee (2018)

Higher education institutions in Uzbekistan currently offer degree programmes in six fields ("spheres") of study, according to the State Standards:

- Humanities (Education; Liberal Arts; Mathematics; Natural Sciences; Art);
- Social Sphere, Economics and Law (Sociology and Psychology, Journalism and Information; Economics; Law);
- Industrial Engineering (Engineering; Production Technologies; Computer Technologies and Information; Architecture and Construction; Communications, Information and Communication Technology);
- Agriculture and Water Economics (Agriculture; Forestry and Fishery; Agriculture Management; Agrotechnics; Veterinary Science; Irrigation and Land Reclamation);
- Health Care and Social Security (Healthcare; Social Security);
- Consumer Services (Consumer Services; Transport; Environmental Protection; Life Security).

The following chart shows student admissions for the academic year 2016/2017 by fields of study. Admissions have been relatively stable between 2013/14 and 2016/17 (overall increase 1.6%), with a decrease for both Humanities (-5.0%) and Social Sphere, Economics &Law (-10%), in favour of the other fields, particularly Industrial Engineering (+10.3%) and Agriculture & Water Economics (+11.0%).

Graph 37. Students admissions by fields of study, Academic Year 2016/17



Source: MOHSSE

One of the major internal efficiency issue in the country is related to student expulsion practices. The system expels students for underachievement, which reduces the already limited numbers of admissions approved annually by the government. Expulsions to a large extent is linked to the system of annual assessments testing students for their knowledge, skills and abilities relative to State Educational Standards developed by MOHSSE. A quarter of the HE students were expelled from HEIs due to underachievements during the academic year 2016-2017. Close to 40% of the students left their tertiary studies for underachievement reasons in the fourth year of their studies (State Statistics Committee, 2018).

3.5.5 Non-Formal Education

Non-Formal Education in Uzbekistan refers to: (i) non-school education; and (ii) education provided by non-state educational services, as stipulated in Annex #1 to the Resolution #961 of the Cabinet of Ministers of 01 December 2017, and also in the Decree of the President #PP-3276 "On measures to develop further activities to provide non-governmental educational services" of 14 September 2017, aiming at increasing the "efficiency and effectiveness in the sphere of education on the basis of the use of innovative pedagogical forms, methods and modern technologies of education, taking into account the best international experience." ('PP-3276, paragraph 2).

In particular, the central apparatus of the Ministry:

- carries out a complex [set] of measures for conducting out-of-school work with pupils, organising their free time, using new pedagogical and information technologies, effective forms and methods of organising various events, shows, competitions and contests (Resolution #961, Annex 1, Chapter 3 §1 [5]);
- interacts with legal entities that carry out activities to provide non-state educational services in the field of general secondary and out-of-school education (Chapter 3 §2[14]); and
- supports legal entities that carry out activities to provide non-state educational services, and [which develop] alternative forms of education in general secondary and out-of-school institutions (Resolution #961, Chapter 3 §3[8]).

According to Annex #1 to the Resolution #961 of the Cabinet of Ministers of 01 December 2017, the system of MoPE includes all "public institutions of general secondary and *out-of-school education*" (Chapter 2 [9]), based on the implementation of a unified State Policy, "further raising the level of spiritual, moral and intellectual development of pupils" (Chapter 3 §1[1]). Where vocational training is provided within the framework of out-of-school education, methodological guidance is provided "in accordance with the State Educational Standards for general secondary education and the State Requirements for out-of-school education", in line with vocational education provided to students of the 10th and 11th Grade of general education schools (Chapter 3 §1[2]).

However, all of the current learning and training opportunities (further described below) are oriented towards professional qualification. There are currently very limited opportunities for adults both employed and unemployed to follow courses of their interest which are not related to vocational education.

Vocational Training provided by the Ministry of Employment and Labour Relations (MoELR)[91] include Professional Training Centres established in Tashkent, Samarkand and Shahrisabz, in collaboration with Korean Agency for International Cooperation (KOICA). MoELR provides *initial vocational training* for unemployed citizens between 16 and 50 years (no previous qualification of school leaving certificate necessary) to support them in finding employment. MoELR runs three large training centres in Tashkent (yearly throughput 520 students), Samarqand (yearly throughput 480 students) and Ferghana (to be opened soon). With support from KOICA, two more professional training centres are under development Fergana and Urgench. Further, MoELR is carrying out targeted work to create a network of professional training centres covering all regions of the country.

As per the Resolution No. 1999 of the Cabinet of Ministers, "On Measures to Establish Professional Training Centres for Unemployed Citizens in the Territories of the Republic of Uzbekistan", the

[91] Previously known as "Ministry of Labour and Social Protection" (MoLSP).

"Programme of measures for the step-by-step establishment of professional training centres for unemployed citizens in the territories of the Republic between 2017 and 2020" was approved. In addition, MoELR runs two large centres for *retraining* unemployed citizens with a yearly throughput of 1,000 students per year per centre. Training is provided in a broad variety of professional areas, the most popular being accounting, handcraft, welding/locksmith, management. Further, MoELR offers *short-term trainings* between 1-3 months in 200 smaller regional centres for around 50 professions. All MoELR courses are attended by men and women (60% and 40% respectively) and are free of charge.

Qualification enhancement by Chamber of Commerce

The Chamber of Commerce offers tailor-made training qualification enhancement (although *not* for the unemployed) for companies on a variety of subjects such as management, personal efficiency, business start-up, logistics, finances, and marketing strategy. Courses last between two and five days.

Commercial training providers

Commercial providers offer a variety of courses in economy, IT and foreign languages. Since 2011, private providers are requested to register as non-governmental educational institutions. Strict requirements for registration have reduced the number of commercial providers. Agreements are signed at oblast level.

Education outside school ("Out-of-school" education)

Extra-curricular activities fall outside the realm of the normal curriculum of any level of education; they are "informal" in such a sense as they are not mandatory. In Uzbekistan, the particular area of informal and extra-curricular education is being referred to as Out-of-School Education.[92] While the current main focus of extra-curricular activities is on music, arts and sports, there is a clear desire to strengthen additional focal areas outside these three priority areas, e.g. by means of, inter alia, school journalism, debate clubs, philosophy clubs. At the moment, extra-curricular activities are being planned separately for every level of education, thus leading to a somewhat disjoint design when considering the education sector as a whole, ranging from pre-primary to higher education. The overall network of out-of-school education institutions comprises of:

- 211 children centres *Barkamol Avlod* in all regions of the country with an overall enrolment of 116,600 students in the school year 2016/2017;
- 301 Schools of Music and Arts (operating under the Ministry of Culture) with an overall enrolment of 72,400 in the school year 2016/2017;
- 347 Children and Adolescents' Sports Schools with an enrolment of 368,700 in the school year 2016/2017.

According to the Cabinet of Ministers of Uzbekistan, the main tasks of the *Barkamol Avlod* centres are to develop creative and art abilities of the children based on their needs and interests, as well as organisation of their recreation. The centres also "transfer diligence and professional skills to children, develop children's technical creativity with organisation of training on working with technical equipment and computers."[93] *Barkamol Avlod* centres do not have age requirements for children willing to join.[94] In

[92] *Cf* Annex #1 to the Resolution #961 of the Cabinet of Ministers of 01 December 2017. Also: Law on Education, Article 17, Resolutions of the Cabinet of Ministers #50, #130 and #211 of 2011

[93] *Cf* "Uzbekistan to create Barkamol Avlod Children Centres", in: UzDaily, 14 March 2011.

[94] However, children living in rural areas have somewhat limited access to *Barkamol Avlod*, which are predominantly located in district centres.

case of music schools, the departments of piano and stringed instruments admit children at the ages 7 to 10, and teach them for seven years. Other departments admit children at the ages 7 to 12 and provide education for a period of five years. The Children and Adolescents' Sports Schools also have age limits based on the physiological development and other age-related characteristics of children.

3.5.6 Education for Children with Special Educational Needs (SEN)

The Law on Education (1997) and The Law on the Rights of the Child (2008) guarantee the right to free general secondary education and secondary specialised professional education. The pending new Law in Education (pres. 2018) will give a more prominent focus on the situation of children with SEN, also guaranteeing a right for children to be educated at home should they not be able to attend regular or specialised schools. Further, the new law will explicitly mention the notion of *Inclusive Education* which will be an important first step towards the realisation of more genuine inclusion in practice. The new law will thus subscribe to a much broader definition of inclusive education in line with international practice, i.e.

- Education is inclusive, if it does exclude, does not discriminate or does not create stereotypes by gender, abilities, ethnical origin, social status, health status or on any other basis.
- In addition, inclusive education responds to education of children with different physical and mental abilities.
- All children, regardless of their background, abilities and gender have equal opportunity to be enrolled into school and finish it.

From a legislative perspective, the State guarantees education for children who require special pedagogical approaches. Children with physical or mental impediments have the right to education and upbringing in educational institutions according to specially developed educational programmes and in line with their physical and mental abilities and wishes. Based on the interests of the child and the recommendations of the medical commission, parents of children with physical or mental impediments have the right to choose between a regular or specialised educational institution.

Education for children with disabilities

Preschool education for children with disabilities is being developed on the basis of three key areas:

- Development of a long-term strategy for ensuring equal and inclusive approaches for children with special needs;
- Staff capacity development (teachers, educators, medical and support staff, etc.);
- Raising public awareness of the need to implement methods of children inclusion.

Education for children with disabilities is currently carried out within three different contexts as shown in the table below.

However, looking at the distribution of children with SEN across the number of schools currently offering inclusive classes, the number of such children per class varies between 1.0 (Khorezm Province) and 2.06 (Tashkent Province) and on average reaches only 1.3 students per class.

Extrapolated on the countrywide representation of SEN students in class, considering that only 60.7% of schools currently include SEN children, the **nationwide average of SEN students per class would be around 0.79 students per school**. This shows that more needs to be done to achieve true inclusive education.

Table 13. Distribution of education for children with special educational needs (SEN)	
Type of education provision	**Number of children**
Specialised Preschool educational institutions (children with SEN included only in 188 of 5,735 [3.2%] Preschool institutions)[95]	20,794
General schools (children with SEN currently included in 5,900 schools = 60.7% of the total of 9,719 secondary schools in the country)	28,890
Special schools[96]	18,600
Home schooling	approx. 10,000

Data source: Education in Uzbekistan 2017, State Committee on Statistics; for Preschool: MoPSE

Table 14. Distribution of children with special educational needs (SEN) in public schools				
Number of classes with SEN students (in 5,900 schools)			Total number of SEN students	Average of SEN Students per class (for 5,900 schools)
Grades 1-4	Grades 5-9	TOTAL		
9,494	**12,674**	**22,168**	**28,890**	**1.3**

Data source: MoPE

At the moment, 85 boarding schools are in operation for physically and mentally challenged children, in addition to 188 specialised preschool institutions. Material-technical supplies for special needs education are closely related to the requirements necessary for successfully implementing general education, i.e. adequate buildings, other infrastructure, and equipment, particularly related to ICT.[97]

While there are special courses each year on inclusive education in the methodology faculty of 40 hours, there is still a need to raise the capacities of teachers to effectively deal with children with special needs, particularly if the move towards a greater inclusiveness in education is to be realised. It needs to be acknowledged that the fact of children having special needs can only be efficiently addressed if teachers can respond to such special needs in a competent and relevant manner, without in turn neglecting other children in the classroom who do not have special needs. It is encouraging to note that as from now, all schools provide professional orientation to all learners in Grades 10 and 11 which evidently includes learners with SEN.

Again, for increasing inclusiveness, parents and the general public need to be more aware about the potential benefits of true inclusiveness. Stakeholders need to realise that an inclusive education system potentially benefits all learners, not just those who are disabled. Ultimately, it will be important to understand inclusive education more as an *obligation by the state for ensuring implementation* of an existing right to children with SEN; and to move from the current project approach to a more systemic understanding, also considering the entire education system.

[95] According to MoPSE, there are currently no date on the number of Preschool children with SEN who are integrated into mainstream Preschool institutions.
[96] Special schools include 85 schools for six broad types of disability, i.e. blind and other visual problems; deaf and other hearing problems, also speech impediments; cerebral palsy; physical (motion); and mental disability (50 schools).
[97] Special glasses, hearing aids, wheelchairs, etc. come from foreign sources since they are not (yet) produced in Uzbekistan and are not (yet) purchased by the state. The latter might be reviewed while drafting the new Education Law.

Education for children from low-income families

The government pays a particular attention to providing support to children from low-income families, and children deprived of their families. The provision of education and care to orphans and children without parental care, is conducted on the basis of the State support (the Law "On guarantees of the child's right", Article 27). The students of *Mekhribonlik* homes and those of the boarding-schools are provided with textbooks and sets of school accessories for free. Annually, more than 500,000 pupils of those categories are provided with winter clothes (coat, footwear, headwear, and gloves). In accordance with the Regulation "On the procedure of paying fees to pre-schools and boarding schools", approved by MoPE and MoF (2008), annually up to 80,000 children of low-income families (15% of the total cohort) are exempted from parent's fees for Preschools. Annually, more than 14,000 children are provided with waivers from parental fees for studying at *Barkamol Avlod* centres.[98]

According to the Regulation on paying and using the parental fees, provided for children's education at children's music and arts schools (operating under the Ministry of Culture), annually 12,000 talented children of low-income families are exempted from such fees. In accordance with the Law *On physical culture and sports* children under the age of 16, the disabled children, and orphans are provided with sports and health-improving services for free.

Education for children of rural, remote areas

The issues of rural schools, located in remote areas, are approached from MoPE from the position of ensuring the right to education for each student. In that regard, such educational institutions are included into the programme for modernisation of buildings and facilities via provision of the relevant infrastructure and information technologies. At the same time, the students of small schools, located in remote, mountainous, or desert areas with small population, remain to be the most vulnerable category of children in regard to access to the quality education. There are 565 such schools in the country.

Due to the non-availability of parallel classes in small schools, such schools often do not have sufficient numbers of subject teachers of relevant profiles. The teachers then have to teach curricula of various grades to children of various ages and various capacity levels. This in turn requires regular skills-improvement, in-service trainings on using innovative methods, forms and technologies of teaching, along with psychological training on working in such conditions. However, due to the very fact that there are no other teachers to replace them, the teachers of small schools have no opportunity to attend in-service trainings on a regular basis. MoPE therefore recognises the need for non-standard, flexible approach in providing in-service training to teachers.

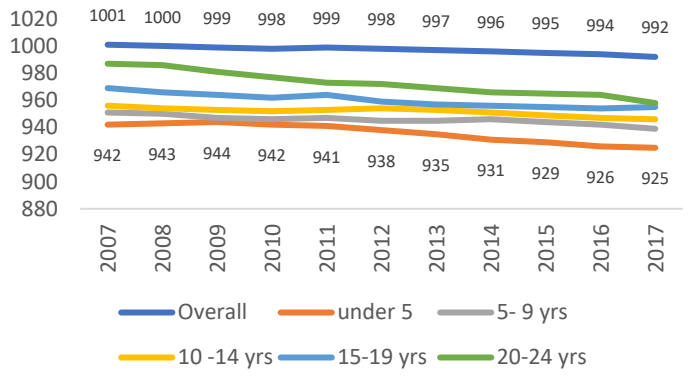
3.5.7 Gender in education

Gender dimension in education outcomes or processes is an area that have got limited attention in Uzbekistan, mainly due to the belief that since the Constitution has guaranteed equal rights to all, irrespective of gender, it is not really an issue. However, gender dimensions becomes absolutely clear once the various sub-sectors and issues with in that are looked at. The starting point for understanding gender in any sphere is the difference between the two concepts - sex and gender. Sex is term to denote relatively stable biological differences between women and men. Gender is term to denote changeable socio-cultural differences between women and men, roles, behaviors, assigned features and other

[98] Resolution of the Ministry of Finance and MoPE About Approving the Resolution on Procedures of Collecting and Using Parental Fees for Children's Training at "Barkamol Avlod" Children's Centres (2011).

characteristics that are not "natural", and is dictated by the public ideas on norms and traditions. Ideas of women and men about what is peculiar to women and men can change (and change) over time in different cultures. Gender equality occurs when men and women are equally important in social terms, have equal rights and liability and have equal chances and equal access to resources and opportunities[99]. Realizing the role of gender seggregated statistics in planning, improved targeting, effective monitoring, and evaluation of the impact of development programmes and using gender statistics as a tool for promoting fairness and equity, as well as improving the quality of life of all population groups, the Government of Uzbekistan tracks several gender-based statistics, education being one of them.

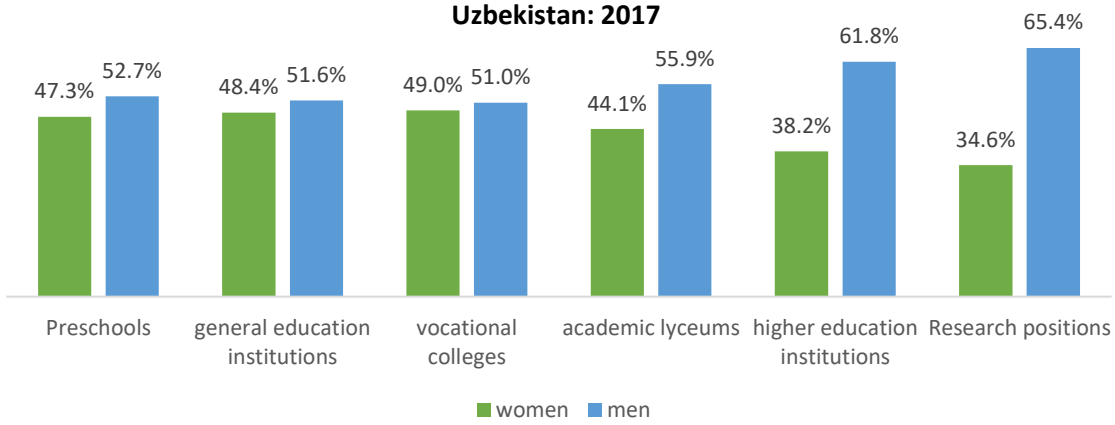
Graph 38. Number of females per 1000 males in Uzbekistan



An important starting point in understanding gender dimensions in education is to understand overall sex ratios in the country. While there were over 1000 women for 1000 men for overall population a decade ago, the sex ratio has now declined to 992 women for 1000 men. However, among the younger age group, the share of girls is even less – for every 1000 boys under 5 years of age in Uzbekistan, there were only 925 girls in 2017. This changing sex ratio also get reflected in the overall share of girls and women in educational institutions as well.

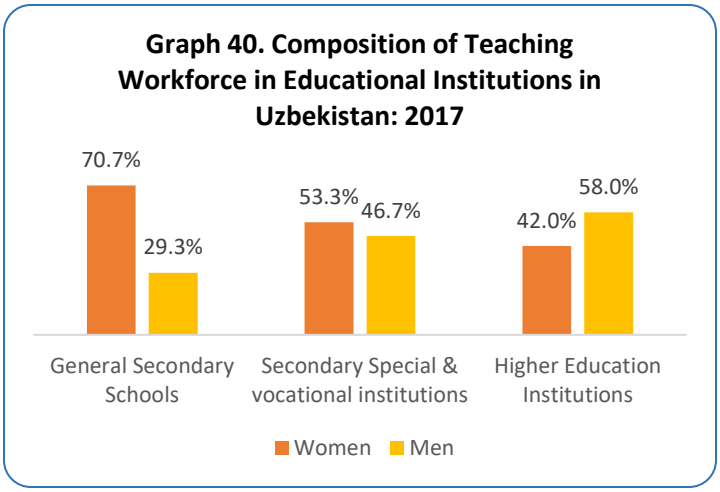
An analysis of the share women in educational institutions in Uzbekistan shows interesting picture: While the gender parity is nearly achieved in preschools up till vocational colleges, thereafter, the share of women declines drastically. In academic lyceums, there are only 78 women for every 100 men enrolled, and only 61 women for 100 men in higher education institutions and finally, in research positions, for every 100 men, only 53 women are enrolled.

Graph 39. Share of men and women in educational institutions in Uzbekistan: 2017



Source: https://gender.stat.uz/en/

[99] https://gender.stat.uz/en/o-gendernoj-statistike-en/obshchaya-informatsiya-en



An interesting dimension is also the share of men and women in teaching workforce as well. Female teachers constituted around 71% of all teaching work force in general secondary schools in 2017. In secondary specialized and vocational institutions, the share of female teachers are still 53%. However, among the higher education institutions, men constitute 58% of all faculties. Clearly, the share of female teachers in higher education instutions are below their share in population and much lower compared to their share in schools.

An important aspect of gender analysis in education sector is to look at how gender is addresssed in classrooms, in pedagogy and most importantly, in curriculum and textbooks. However, there is no information available on classroom practices of teachers and students with respect to gender (including gender-related stereotyping or prejudices), nor any analysis of curriculum and textbooks to understand how they use gender-neutral terms. This is an important area that needs to be addresed in the ESP period in Uzbekistan.

3.5.8 Summary of Education Sector Analysis so far

The above analysis shows that each sub-sector of education have challenges with respect to access, equity, quality and system management. These issues are summarized below to facilitate strategizing priority areas, programmes and activities in section 4.

Table 15. Summary of Education Sector Issues /Challenges leading to identification of strategic areas for plan intervention

Sectoral Issues	Strategy area
Preschool Education • Pre-school enrolment rates below 30% over the past 10 years • Rural-urban discrepancies are huge in preschool enrollments • Huge regional disparities as well in preschool enrollments • Limited private provision of preschool services • Under-utilization of existing places preschools in many regions • Risk of overcrowding of preschools resulting in large preschools ***General Secondary Education*** • Expansion of GSE from 9 to 11 years, has implications for school spaces • Less than 100 percent GER at grades 5-9 indicates out-of-school children, likely due to dropout • Gender disparity → Girls represent 60% of out-of-school children (OOSC) • Gross graduation ratio for grades 5-9 is less than 100%, reflecting some grade repetition. ***Secondary Specialized and Vocation Education*** • 60% decrease in enrollment as a result of the ongoing reforms (2017 compared to 2016) ***Higher Education*** • Enrollment rates have been at or below 10% for more than a decade	**Access and participation**

• Decline in GER to less than 10% now from 17% in 1991; 19% intake in 2009; 9% intake in 2017 • GER in Uzbekistan is lower than comparable countries • Though more demand, supply is limited by Government-set quotas for admissions in universities • 1 in each 4 students expelled from universities due to low performance (2016-17) • Gender bias/disparity in access to universities: Share of females in overall enrollment has been below 41% and female share in GER is uneven across regions • Only 5% of the HE students were in post graduate courses (2016-17)	
Preschool Education • Poor Infrastructure condition in most preschools – half of them need major repairs • Sub-optimal physical conditions of learning environments in preschools: Lack of functioning heating and lighting, as well as water and sewage services during school hours ***General Secondary Education*** • Infrastructure for school sanitation remains a challenge • Access to water, sanitation and hygiene (WASH) in GSE schools remains a challenge outside Tashkent city, particularly in lagging regions • 15% of schools require significant capital repairs • Access to utilities is inequitable, particularly in lagging regions • Dual Shift schooling is common in most regions: pressure on learning environments and instructional time; Urban schools are large, likely driving need for dual shifts ***Secondary Specialized & Vocational Education*** • VET Infrastructure needs to be improved • Insufficient sanitation facilities (including toilets) • Old and/or inappropriate workshop equipment in many vocational colleges ***Higher Education*** • A large number of laboratories are in need of renovations • Need more ICT facilities - Ratio of students per computer is 15:1	**Access: School Infrastructure**
Preschool Education • Quality of preschool education unknown • No system to measure preschool outcomes • Just developed the curriculum & Early Learning development standards ***General Secondary Education*** • Student assessment system in the country includes disparate activities • No information on the specific guidance for teachers on conducting or monitoring classroom assessment activities • No regular system-level assessments of learning outcomes at National level • Student performance in specific studies show students perform better on knowledge, but less on application and critical thinking and problem-solving areas • High disparities across regions in student performance • Need to speed up and ensure curriculum balances content and competencies ***Secondary Specialized & Vocational Education*** • Questionable relevance of SSVE • Job quality is a major concern: predominantly informal sector employment; no "on the job" training, performing predominantly repetitive tasks • SSVE graduates' employment rate – 57% (2013) and Only 30% of college graduates get jobs in their field of specialization • Gaps between skills demand (employers) and supply (VET programmes): • Employers find the current type of education & skills as obstacles to doing business • Most employers are concerned with VET graduates' socio-emotional skills ***Higher Education***	**Quality & relevance (content: Curriculum, assessment etc.)**

• Gender inequality: 68% of women with HE was employed in, vis-à-vis 84% of men • Higher education entrance examinations and teacher attestation exams are improving in quality in terms of design and administration; In terms of psychometric characteristics, format and relevance, the quality of exams is unclear • Disconnect between HEI and employers, as far as relevance is concerned • Positive correlation: HE – labour market outcomes: higher employment rate and wage • Employers report challenges in hire higher education graduates • Research Output: Around 350 articles published in international journals in 2016 • Patent applications dropped by 6 times from 1994 to 2016)	
Preschool Education • Challenges in the implementation of ELDS & curriculum • Heavy reliance on teaching-learning and play materials that are bought from market – very limited efforts to introduce teacher and children developed materials ***General Secondary Education*** • Low government prescribed instructional time • Limited scope for innovations in teaching-learning process • Inadequate teaching-learning materials (for example, guidebooks) • Broad access to ICT and amenities, but usage is unclear • No information on how ICT equipment or school amenities support the teaching and learning process ***Secondary Specialized & Vocational Education*** • practical training need more time • Increase the industry / labour market interface ***Higher Education*** • No information on how ICT is used to support the teaching and learning process (for example, Massive Online Open Courses (MOOC))	**Quality & relevance: Methodology, teaching-learning materials etc.**
Preschool Education • Quality of teacher preparation and support not known • Most teachers have only SSVE; very few have higher education ***General Secondary Education*** • Pupil- Teacher Ratio (PTR) seem low, but Student Classroom Ratio (SCR) is not; and teacher workloads are unclear • Practical training in Teacher education programmes is low (approximately only 8% compared to high performing countries like Singapore) • Selection and hiring process is not stringent to attract the best: Academic requirements for teachers of preschool and from grades 1-4 are lower than those for teachers teaching grades 5-11. • Hiring process not comprehensive enough as it often does not include subject-knowledge and pedagogical skills assessments, assessment of teaching portfolio, and specific amounts of practical experience. • Mandatory professional development is inadequate and offer limited collaboration opportunities among teachers. • Professional development training is not a continuous process and takes place only every 5 years for 36 hours for 4 weeks. This is mostly theoretical training • Methodic school involves regular best -practice sharing, but mentoring and coaching is limited. Not compulsory • By policy, induction programmes exist, but implementation is unclear • Teacher assessments (attestations) are used for promotions, but not to improve teaching practices or inform policy making • Attestations take place every 5 years. A teacher will have to fail 2 consecutive times, before action is taken	**Teacher professional development**

• Teacher career options are limited (only 4 categories without alternative paths, e.g., leadership, specialists/methodologists etc.) • Teacher salaries and incentives depend on their workload, level of education, number of years worked and level categories (there are four categories of teachers) • Salary raises are linked to attestation results and promotions: Director's Fund provides bonuses 15-20% for teachers, but it may not relate to improved student learning in practice • Teacher shortages: Incentives exist between 15-30% for foreign language teachers in hard-to-staff schools ***Higher Education*** • Quality of teachers and teaching: Student-faculty ratio is low: • Teachers' academic background: Only 6% with PhD Degree in 2017; 32.2% of teachers with Masters' Degree in 2017 • Low research outputs and drop in patents	
All sub-sectors of education • Absence of evidence based decision making, data culture • No systematic, web-based EMIS to collect data at various levels of education • EMIS: being piloted in preschool education in 2018 • Different Ministries/ agencies collect education data; but the data reliability, quality and availability are a matter of concern • "Bottom up" data culture: data is not being used for planning and decision making at regional and local levels – data does not flow back to regional and district departments, not to mention preschools • Available data is not analyzed beyond lead tables on enrollments; there is no time-series analysis of the available data • Capacity for data analysis at all levels is limited • No systematic household surveys which track education demand and out-of-pocket expenditures in education • The existing system of data collection and management do not track internal efficiency indicators such as repetition and dropouts • Monitoring and evaluation is not systematized • Research studies do not inform educational gaps in the country • There is no information system to track students after graduation – available ones are few and far in between, no systematic approach • Some quasi-tracer studies are in place • There is no Labour Market Information System to collect and analyze information on: current and future labour market trends and skills needs; and availability of relevant skills development opportunities, and jobs • At Higher Education Institutional level, institutions often manipulate its own data	**Knowledge management/ M&E; Management**
All sub-sectors of education • Management and quality assurance at system level is sub-optimal • Poor capacity to manage education system at all levels • Hiring requirements for institutional leaders do not include specialized training in institutional management management and instructional, which may be affecting principals' ability to fulfill their role (eg. Management of human and financial resources, school culture, instructional leadership, etc.) • No robust measures for accountability • Community mobilization and school based management involving community participation is weak	**Management, Standards etc.**

3.6 Education Expenditures

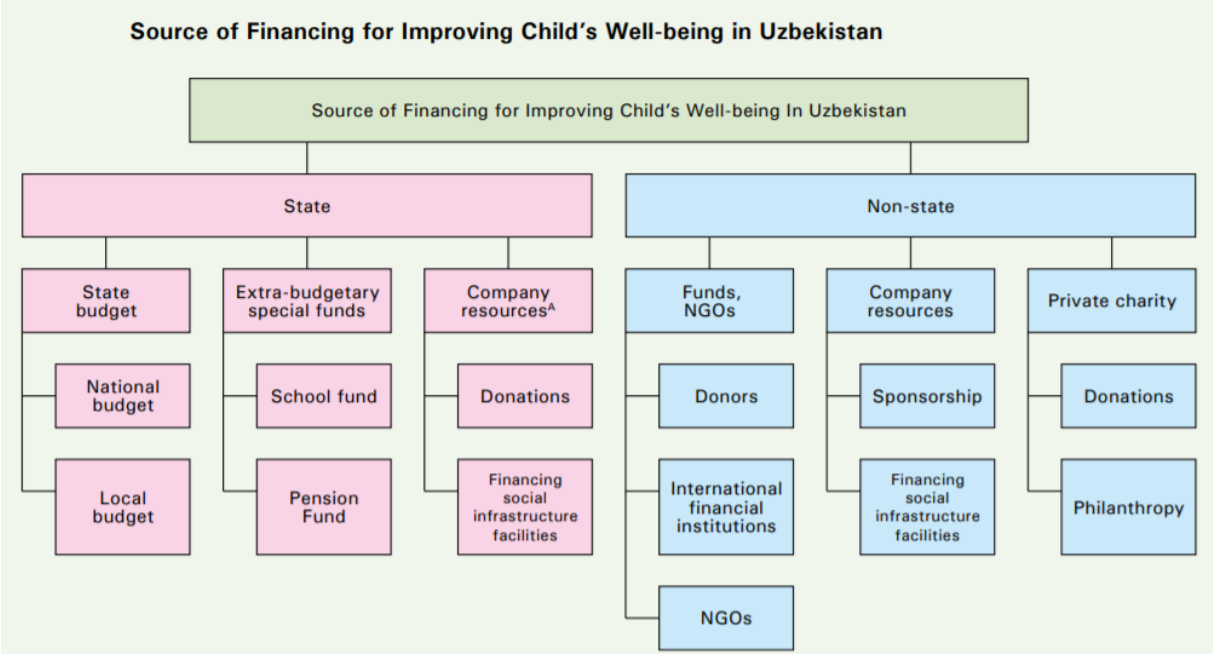
Financing educational expenditures, along with heath care expenditures continues to be one of the main priorities of government social policy. The percentage of budget funds earmarked for this purpose in the last ten years has remained stable within 8.6–9% of GDP (6.4% for education and 2.4% for healthcare).

3.6.1 Sources of Education sector Budgeting[100]

Education sector expenditures are financing by both Government and non-state sources in Uzbekistan (for that matter, any social sector expenditures). Government sources include the State budget (national and local budgets), extrabudgetary special funds, and the funds of businesses where government has a share (100% government owned companies and mixed companies with government shareholding). The government budget is the main source of funding for any child development or welfare related activities.

Non-state sources of funding include the funds of non-profit organizations, private businesses, and individual philanthropy. In Uzbekistan the social responsibility of businesses boils down to the payment of the social infrastructure tax by businesses. 10But there is also a practice whereby responsibility for the development of certain areas is delegated to state owned enterprises by means of specific government acts.

Chart /Graph 41. Sources of Financing Children's well being in Uzbeksitan



Source: UNICEF (2009)

[100] This section is largely drawn from UNICEF Uzbekistan (2009): Social Budgeting for Child Well-being in Uzbekistan; pp. 9-21.

3.6.2 Budgeting for education - process

Education in Uzbekistan is mainly financed from the State budget. Additional resources are obtained through fees, parents' contributions, donations, international donors as well as income generated at the school level, for example, renting out unused buildings, equipment, or providing extracurricular training courses. At the tertiary level, all universities do charge tuition fees to students whose entrance test results are not at the thread hold level for receiving state grant. Tuition fee constitutes about 60% of the total budget of higher educational institutions. Other extra-budgetary funds include Fund for the reconstruction, renovation and equipment - mainly for general education schools, professional colleges, academic lyceums and medical institutions, and Fund for the development of materials and technical infrastructure of Higher Educational Institutions, both under the management of the Ministry of Finance.

The public education budget is divided into three levels: State budget, central or Republican budget budget and the local budgets. Higher education, educational establishments and academic lyceums under higher educational establishments as well as regional institutions providing teacher training are financed from the central /Republican budget. Local budgets mainly finance the current costs of pre-schools, specialized and general schools, while a major share of expenses on capital investment is covered from central/Republican budgets.

The process of local budgeting is as follows. Each local administration estimates its annual budgets on the basis of local revenues and projected expenditures. Central government subsidizes the local budget deficit, usually by exchange of the proportion (the percentage) of local taxes or in the form of transfers from the central budget.

Regional and local administrative bodies responsible for public education make the calculation of projected numbers of children enrolled in pre-schools, primary and secondary general, and vocational educational establishments for the following year. They also make the estimates of the cost of delivering education services, and the forecast of local tax revenues as well as any potential budget deficits. Local branches of the Ministry of Finance consolidate these local budgets and submit them to the Ministry of Finance (MoF), together with all other required allocations from the central budget.

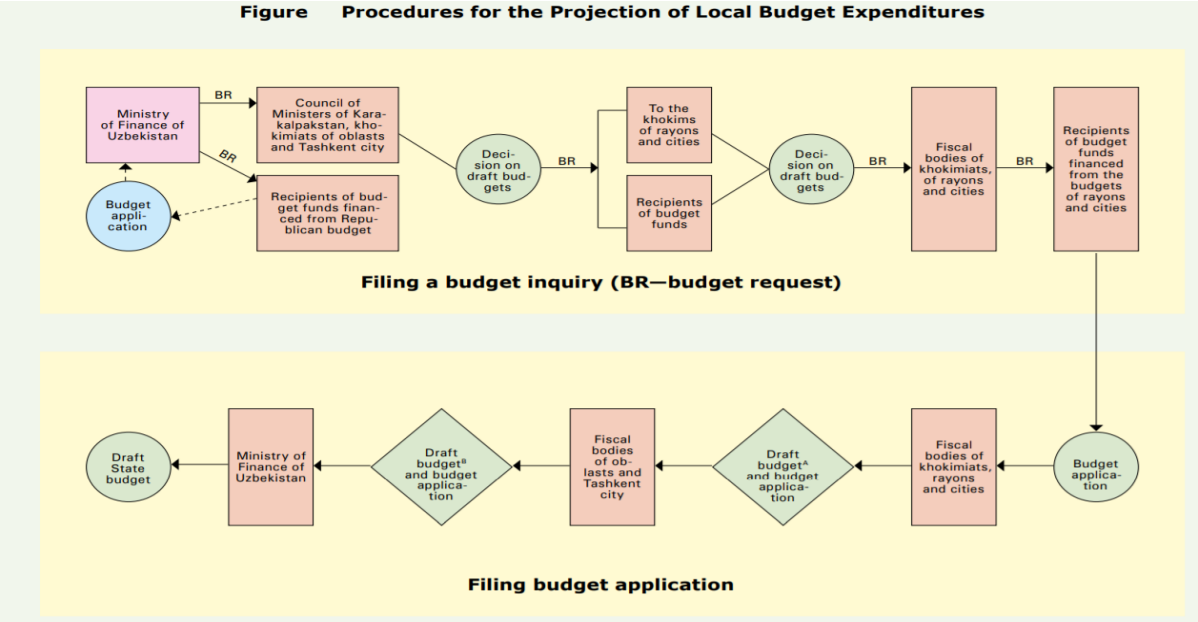
Regional and local governments prepare their draft education budgets during the July-August period and submit them to MOPE/MOPSE/MOHHSE, which at same time prepares the global expenditure forecast of MOPE for the next financial year and consolidates all the expenditure plans for their sector for that year. These documents are usually submitted to the MoF in mid-September. At the beginning of October, the Ministry prepares a draft of the National Budget and submits it to the Cabinet of Ministers for approval. The Cabinet of Ministers considers the budget draft and introduces amendments within a month period, and then submit the final draft of the budget to the Parliament. Parliamentary committees consider the submitted budget drafts and submit their recommendations to the Parliament for final budget approval, which is disclosed around November-December each year.

All levels of budgets—both national and local— are involved in the process of financing child-focused expenditure. But most expenditure (nearly all core expenditure and part of the social benefits) are financed from local budgets.

3.6.3 Methodology and Procedures of Social Budgeting at the Local Level

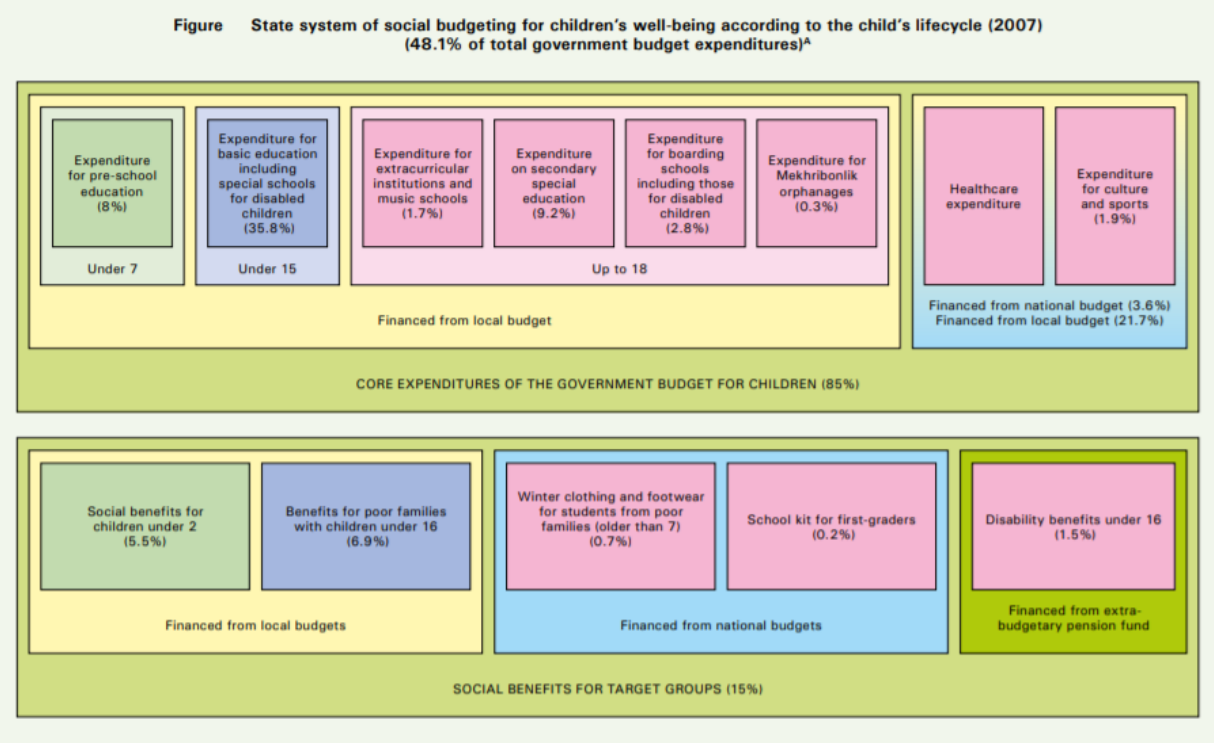
The process of developing and approving the expenditures of local budgets is provided in the figure below.

Chart /Figure 42. Procedures for the Projection of Local Budget Expenditures in Uzbekistan



Source: UNICEF 2009

Chart/ Figure 43: State System of Social Budgeting for Children's well being according to child's lifecyle

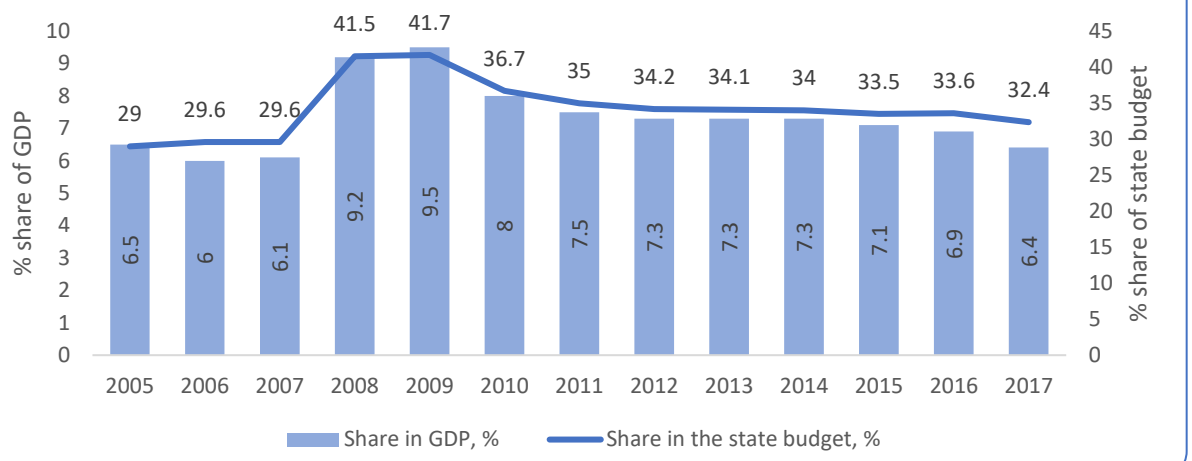


Source: UNICEF (2009)

3.6.4 Education System Financing

Among countries having a similar level of economic development, namely the lower middle-income group (LMIG), Uzbekistan allocates one of the highest level of public resources to the education sector. The Government of Uzbekistan spent around 6.4% of its GDP in education in 2017. This is more than what other Commonwealth of Independent States (CIS) countries invested in education (Kazakhstan:2.8% of GDP; Tajikistan: 5.23%; Belarus: 5%; and Russia: 3.8%). The World Bank (Education Sector Analysis, 2018) assumes that given the wide scope of the recent education reforms in Uzbekistan, the public spending on education is expected to increase from 6.4% to 7.4% of GDP in 2018[101].

Graph 44. Uzbekistan: Public Expenditures on Education



Source: MOF

Government of Uzbekistan's spending on education is also higher than average government spending in the ECA region and other OECD countries. Allocation for education, which is expected to stay at approximately 31.4% of the government budget in 2018, is higher than the average ECA spending on education and that of OECD countries at approximately 11% and 13% of total government expenditure respectively. Public spending on education in neighbouring countries such as Kazakhstan and Russia is also significantly lower (at 13.9%, 11% and 16.4% of public spending respectively)[102].

As a proportion of government budget, education expenditures accounted for approximately 32.4% in 2017 compared to 33.6% in 2016. The share of education in total budget expenditures of Uzbekistan has remained in the range of 30% to 34% in the past decade or so.

Education budgets are part of the social sector expenditures in Uzbekistan. Social sector expenditures constituted nearly 60% of the government /state budget in 2014, however, the share declined to 55.5% in 2017. During 2016-2017, education alone accounted for more than 60% of the social sector budgets of the government, compared to a fourth of the social sector expenditures that was allocated to health sector and around 10% of the social sector expenditures allocated to social benefits and social protection activities. These figures reiterate government's commitment to education sector.

[101] National Statistics Committee (2017): Preliminary Performance of the Government Budget for the Republic of Uzbekistan

[102] World Bank (2018): Education Sector Analysis, shared on 15 October 2018.

Table 16. Structure of social expenditures of the state budget, 2014-2017.						
	Social Sector expenditures	**Unit**	**2014**	**2015**	**2016**	**2017**
1.	Education	%	59.9	60.1	61.3	62.4
2.	Health care	%	25.0	25.8	25.8	24.3
3.	Culture and Sports	%	1.9	1.9	2.0	2.1
4.	The Science	%	1.1	1.1	1.1	0.8
5.	Social protection (social security of orphanages, boarding schools)	%	0.7	0.7	0.7	9.1
6.	Social benefits for families, incl. families with children	%	11.4	10.4	9.1	
	Social expenditures as % of GDP	%	10.9	10.2	10.1	
	Social expenses as % of state budget expenditures	%	59.5	56.4	55.6	55.5

Source: Ministry of Finance of the Republic of Uzbekistan

Currently, 33.6% of the national budget (and 62% of the social sector expenditures) goes to education expenditures, divided between:

- on-budget expenditure for education and personnel training (excluding investments, costs related to salaries and consumables);
- on-budget expenditure for investments (e.g. school construction, equipment);
- non-budgetary funds.

Table 17. Total expenditures for education – absolute figures (UZS billion)												
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Overall expenditures except personnel training	776.5	1,031.7	1,350.2	1,878.1	2,464.4	3,255.7	4,017.5	*combined*				
Personnel training	214.9	269.4	376.5	591.0	868.3	1,208.4	1,565.4					
Sub-total	**991.4**	**1,301.1**	**1,726.7**	**2,469.1**	**3,332.7**	**4,464.1**	**5,582.9**	**6,727.1**	**8,232.3**	**9,863.7**	**11,822.0**	**13,364.2**
Expenditures on financing centralised investments into education	214.1	209.0	349.0	382.0	509.3	194.4	9.4	*Included in Fund for reconstruction, renovating and equipping educational and medical institutions (below)*				
Total on-budget expenditure	**1,205.5**	**1,510.1**	**2,075.7**	**2,851.1**	**3,842.0**	**4,658.5**	**5,592.3**	**6,727.1**	**8,232.3**	**9,863.7**	**11,822.0**	**13,364.2**
Fund for reconstruction, renovating and equipping educational and medical institutions	*151.5*	*236.0*	*396.9*	*497.2*	*556.8*	*284.1*	*338.3*	*691.0*	*807.1*	*998.1*	*1,151.5*	*1,229.7*
Fund for development of children's sports	*21.7*	*22.7*	*23.4*	*30.2*	*45.3*	*97.0*	*146.3*	*5.2*	*8.3*	*10.1*	*12.2*	*15.4*
Total Non-Budgetary Funds	***173.2***	***258.7***	***420.3***	***527.4***	***602.1***	***381.1***	***484.6***	***696.2***	***815.4***	***1,008.2***	***1,163.7***	***1,245.1***
GRAND TOTAL	**1,378.7**	**1,768.8**	**2,496.0**	**3,378.5**	**4,444.1**	**5,039.6**	**6,076.9**	**7,423.3**	**9,047.7**	**10,871.9**	**12,985.7**	**14,609.3**

Data source: Ministry of Finance

3.6.5 Distribution o budget by level of education

The table below presents data on the evolution of the share of each level of education in the total education budget from 2005 until 2016 (except expenditures on financing centralised investments):

Table 18. Allocation for each level of education in the education budget (UZS billion), except investments

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pre-school education	142.9	170.9	218.7	279.3	361.1	464.3	569.7	738.8	964.8	1,160.0	1,481.6	1,661.4
General secondary education	576.0	790.4	1,037.7	1,460.5	1,911.0	2,529.6	3,129.4	3,690.5	4,386.9	5,260.0	6,299.2	7,202.0
Education for CWSN	13.3	17.3	27.2	35.7	49.0	66.5	84.8	101.5	122.8	149.3	172.1	199.0
Education for children at out-of-school institutions and music schools	24.5	33.4	46.3	79.8	101.3	138.0	182.2	248.5	334.9	406.8	440.4	500.1
Educating children at "Mekhribonlik" children's homes	4.7	5.7	6.3	8.3	10.8	14.7	17.1	21.8	25.8	30.1	33.1	39.1
Other activities on general education	15.0	14.1	14.1	14.6	31.1	42.6	34.3	40.6	50.3	59.4	82.2	91.7
Education at academic lyceums	9.9	14.3	24.5	38.6	57.3	81.3	104.6	128.4	156.2	194.6	235.4	260.7
Education at vocational education colleges	124.7	160.0	224.8	365.4	566.0	849.0	1,087.4	1,364.1	1,704.2	2,037.6	2,393.6	2,638.2
Higher education	59.1	74.5	100.8	149.5	205.7	224.1	302.4	336.7	408.1	483.9	575.2	643.2
Other activities on training the personnel	21.2	20.6	26.5	37.5	39.3	54.0	71.0	56.4	78.3	82.1	109.2	128.7
TOTAL	**991.3**	**1,301.1**	**1,726.7**	**2,469.1**	**3,332.7**	**4,464.1**	**5,582.9**	**6,727.1**	**8,232.3**	**9,863.7**	**11,822.0**	**13,364.2**

Data source: Ministry of Finance

A more precise analysis regarding changes in allocations gives the table below which shows the percentage allocations against the total budget for the education sector.

Table 19. Percentage share of each level of education against the total budget for the education sector

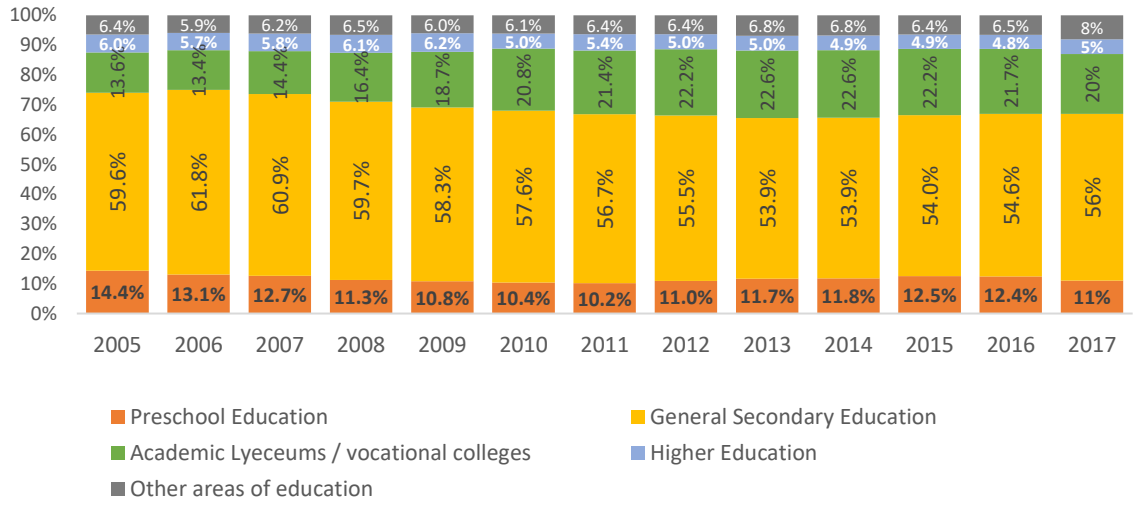
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pre-school education	14.4	13.1	12.7	11.3	10.8	10.4	10.2	11.0	11.7	11.8	12.5	12.4
General secondary education	58.1	60.7	60.1	59.2	57.3	56.7	56.1	54.9	53.3	53.3	53.3	53.9
Education for children with SEN	1.3	1.3	1.6	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Education for children at out-of-school institutions & music schools	2.5	2.6	2.7	3.2	3.0	3.1	3.3	3.7	4.1	4.1	3.7	3.7
Educating children at "Mekhribonlik" children's homes	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other activities on general education	1.5	1.1	0.8	0.6	0.9	1.0	0.6	0.6	0.6	0.6	0.7	0.7
Education at academic lyceums	1.0	1.1	1.4	1.6	1.7	1.8	1.9	1.9	1.9	2.0	2.0	2.0
Education at vocational education colleges	12.6	12.3	13.0	14.8	17.0	19.0	19.5	20.3	20.7	20.7	20.2	19.7
Higher education	6.0	5.7	5.8	6.1	6.2	5.0	5.4	5.0	5.0	4.9	4.9	4.8
Other activities on training the personnel	2.1	1.6	1.5	1.5	1.2	1.2	1.3	0.8	1.0	0.8	0.9	1.0
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Data source: Ministry of Finance

Among sub-sectors of the system, the largest portion of public spending on education is dedicated to General Secondary Education. In 2017, of the total budget of $ 2.94 billion (around 15,977 billion Uzbekistan Soum) spent on education, the GOU contributed the most to GSE (56% of the total budget), followed by SSVE (20%), preschool education (11%) and higher education (5%). Spending on orphanages, schools of music and art, and funds for development of educational and medical institutions corresponds to the remaining 8%[103].

Between 2005 and 2011, education for Grades 1-9 has been consistently been allocated around 55-60% of the education budget, a significant proportion by international standards. Education at academic lyceums, and particularly at vocational education colleges, has gained importance over time, with the allocation for the latter having increased by 55% from 2005 to 2011.

Graph 45. Uzbekistan: Share of Education sub-sectors in total Government expenditure on Education



Data source: Ministry of Finance

Allocations have been steadily increasing in absolute terms which however is partly due to inflation, especially up to 2008. Since 2009, the average yearly inflation rate for Uzbekistan has been moving around 10% which is more or less in line with the annual increase in budget allocations over the same period.

3.6.6 Per Capita (per student) Public expenditure on Education

While the government does not publish any per capita figures on public expenditures on education, for the purpose of ESP, per student public expenditure is estimated as: total public expenditure in education sub-sectors divided by the number of students enrolled in that particular sub-sectors of education.

The main findings of the per-student expenditure analysis as follows:

- In all sub-sectors of education, per student expenditure by government increased in nominal and real terms.

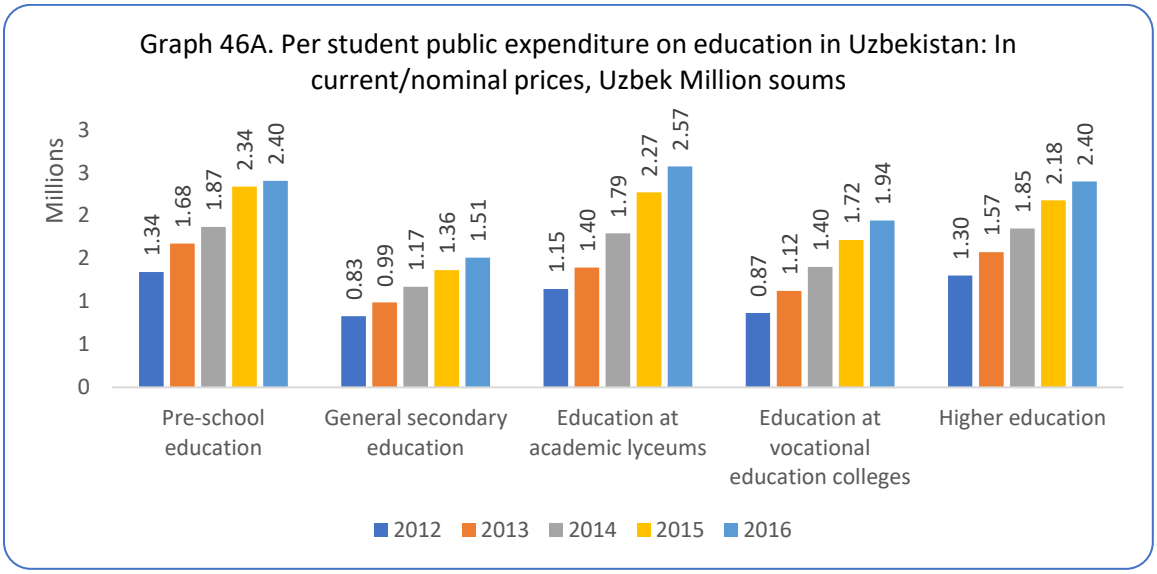
[103] World Bank (2018): Draft Education Sector Analysis; shared on 15 October 2018

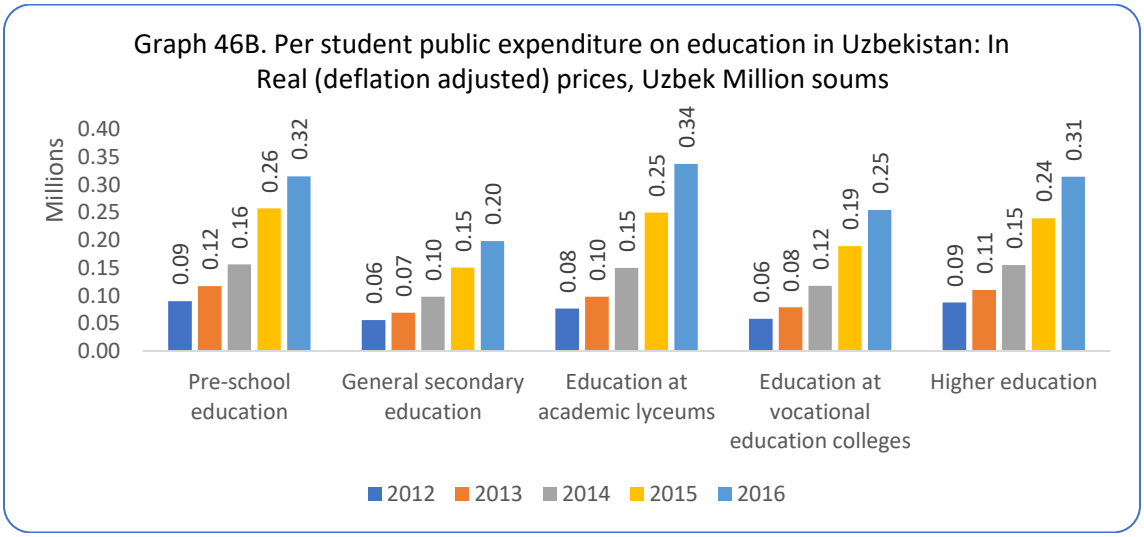
- Per student public expenditure is lowest in general secondary education. In nominal prices, the government invests UZ soums 1.51 million on a general secondary school student in 2016. If the 2016 official exchange rate (of 1 US$ = 3218 Uz soum[104]) is applied, then the per student public expenditure in general secondary education would have amounted to US$ 470. If the 2017 expenditure is analysed, then with the exchange rate of 1 US$ = 8120 Uz soum, the public expenditure per student in general secondary would have been around US$ 186. However, this is because of universal enrollments in the sector resulting in better economies of scale.
- Spending on preschool education in Uzbekistan is accounts for 0.72% of GDP, which is in line with OECD average of 0.7%. However, enrolment in preschool education is very low at 29% as compared to the OECD average of 83.8%, as well as to non-OECD countries such as Kazakhstan, which spends approximately 0.6% of GDP on preschool education and has a 60% enrollment rate, and Russia, which spends approximately 1% of GDP on preschool education and has an enrollment rate of approximately 85%[105]. The per student public expenditure analysis shows that preschool education has one of the highest per child (attending) public expenditure. Government spends around Uz soumd 2.4 million and 2.5 million per preschool student in 2016 and 2017 respectively. This roughly translates to around US$ 750 per student in 2016 (with old exchange rates) and around US$ 300 per student in 2017 (with new exchange rates. This is inspite of allowing preschools to take measures for cost recovery in the form of fees and other charges. Clearly, the inefficiencies are also due to the low level of preschool enrollments.
- Per student public expenditures appears to be highest in the academic lyceums. In 2016, public expenditure per student in academic lyceums amounted to 2.57 million Uz soums, and this increased to nearly 3 million Uz soums in 2017. The enrollments in academic lyceums accounts for only 7% of all secondary specialized and secondary specialized vocational education enrollments taken together whereas they account for 9% of the budgets for the two pathways taken together.
- Spending on SSVE in Uzbekistan is high, in comparison with EU and OECD countries. Spending on SSVE in 2017 accounted for approximately 1.27% of GDP, which was more than the spending in the EU in general (less than 1% of GDP), and nearly double the spending in OECD countries (at approximately 0.6% of GDP). Until the transition into an 11-year general secondary education cycle, enrollment in SSVE was mandatory, thus enrolment was significantly higher than that of other countries that do not have mandatory education at this level[106]. During 2016-2017, the government invested nearly 2-2.3 million UZ soum per a student in SSVE.
- Uzbekistan spending on higher education at 5% of the education budget is one of the lowest in the world. Only two other countries – East Timor (4.1%) and Kyrgyz Republic (4.6%) – allocate less of their education budge to higher education. Most countries spend approximately 20% of their education budget on higher education, with some countries, such as Austria (35.5%) spending significantly more. In terms of percentage of GDP, Uzbekistan spends 0.3% of GDP on higher education, and the enrolment rate is very low at 9%. Other countries with relatively low rates of spending on higher education, such as Kazakhstan (3.5% of GDP), Belarus (0.8% of GDP) and Russia (0.8% of GDP) have enrolment rates of 50%, 87% and 82% respectively[107]. Due to very low enrolments in higher education, even the low public funding invested in higher education emerges

[104] https://www.focus-economics.com/country-indicator/uzbekistan/exchange-rate
[105] World Bank (2018): Draft Education Sector Analysis, shared on 15 October 2018
[106] ibid
[107] ibid

to be high per capita wise, compared to other sub-sectors of education – Uz soum 2.4 million and 2.7 million respectively in 2016 and 2017.

- A large portion of students in higher education study on paid contracts, and the introduction of "super contracts" may increase private income for higher education institutions. Approximately 27% of students attend high education institutions on government grants, and around 73% study on paid contracts. For 2917-18 academic year, "super contracts" were introduced in the stysem. Under these "super contracts", 71 unversities received an additional 486.5 billion soum, by admitting additional students who, despite not obtaining the minimum regular admission scores, were allowed to enroll by paying a larger tuition fee in the first year of study[108].





Source: UNICEF (2018) estimates using Data from MOF

[108] World Bank (2018): Draft Education Sector Analysis, shared on 15 October 2018

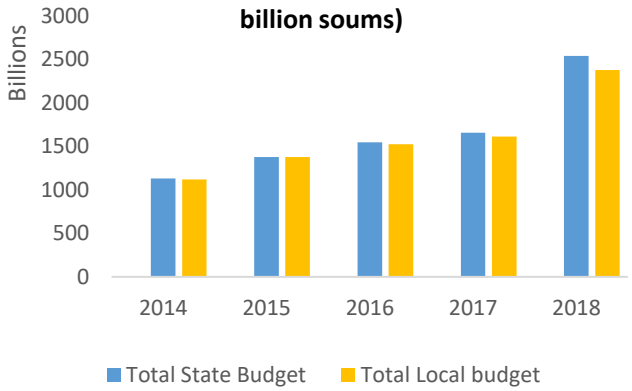
3.6.7 Sub-sectoral Education Expenditure Trends in Uzbekistan

In this section, an analysis of education sector expenditures by Central and Local governments aer taken up, seperately for preschool education and general secondary education.

Preschool Education

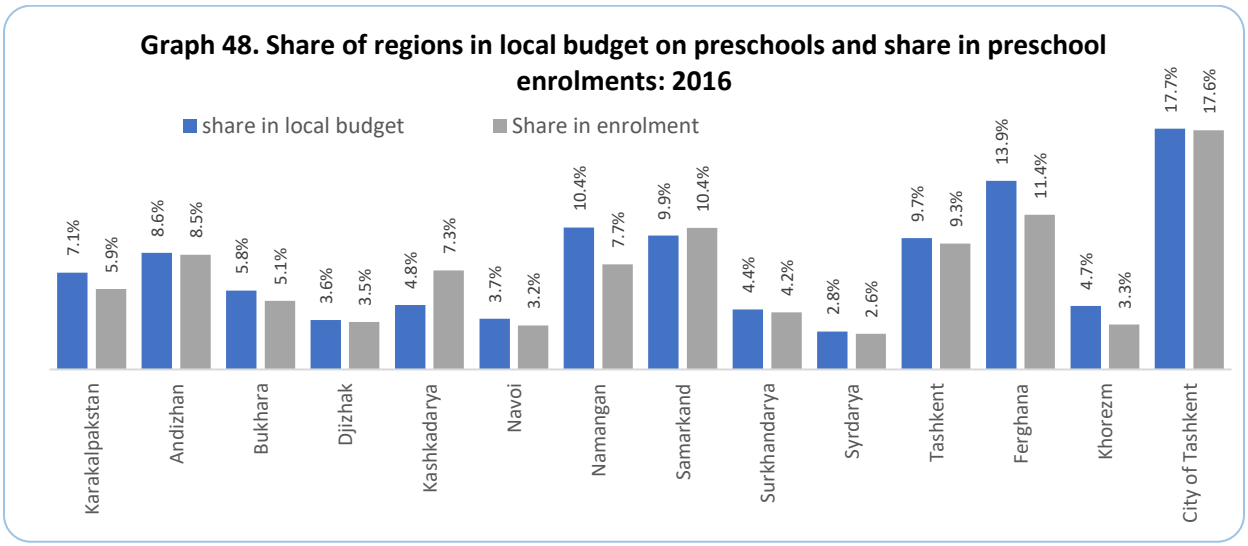
Preschool Education accounts for 11% of overall education budgets in the country in 2017. The overall budgets spent on Preschool Education by the country increased in nominal terms in the past few years, but the increased allocations of 53% from 2017 to 2018 is mainly due to the establishment of the new Ministry of Preschool Education (MOPSE) at the Central level. The preschool education expenditures channelled through Local Budgets accounted for 99.2% of the preschool expenditures in 2014. However, the share of Republican Budget in Preschool Education expenditures are increasing – in 2018 Preschool expenditures, Republican Budgets accounted for 6.4% and the Local Budgets, still 93.5%.

Graph 47. Preschool Education Expenditures: Total and Local Budgets (in billion soums)

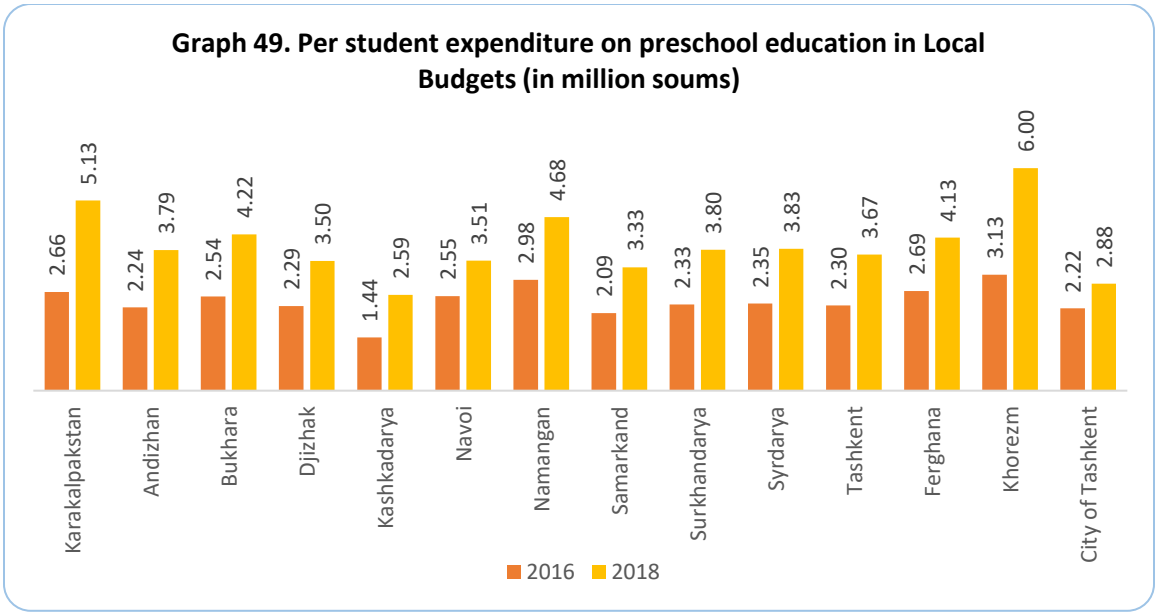


Different regions differed in their share in preschool budget in total local budget as well as in the share in preschool enrollments. For example, while Karkalpakstan accounted for 7% of total local budget on preschool education, while the region accounted for only 6% of the total preschool enrolments in the country. On the other hand, Kashkadaraya accounted for more than 7% of total preschool enrollments in the country, but accounted for only 4.8% of total local budgets on preschool education. Regions like Namangan, Ferghana and Khorezem spent relatively more than other regions compared to their share in preschool enrollments.

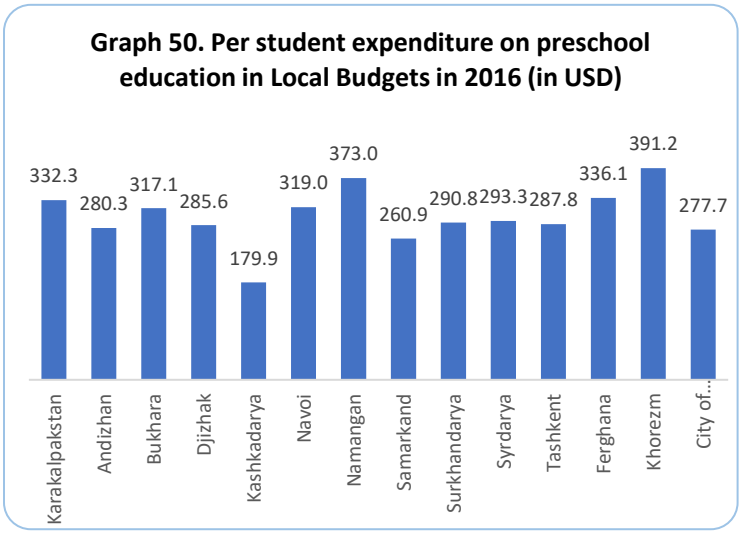
Graph 48. Share of regions in local budget on preschools and share in preschool enrolments: 2016



Source: UNICEF (2018) estimates using Data from MOF

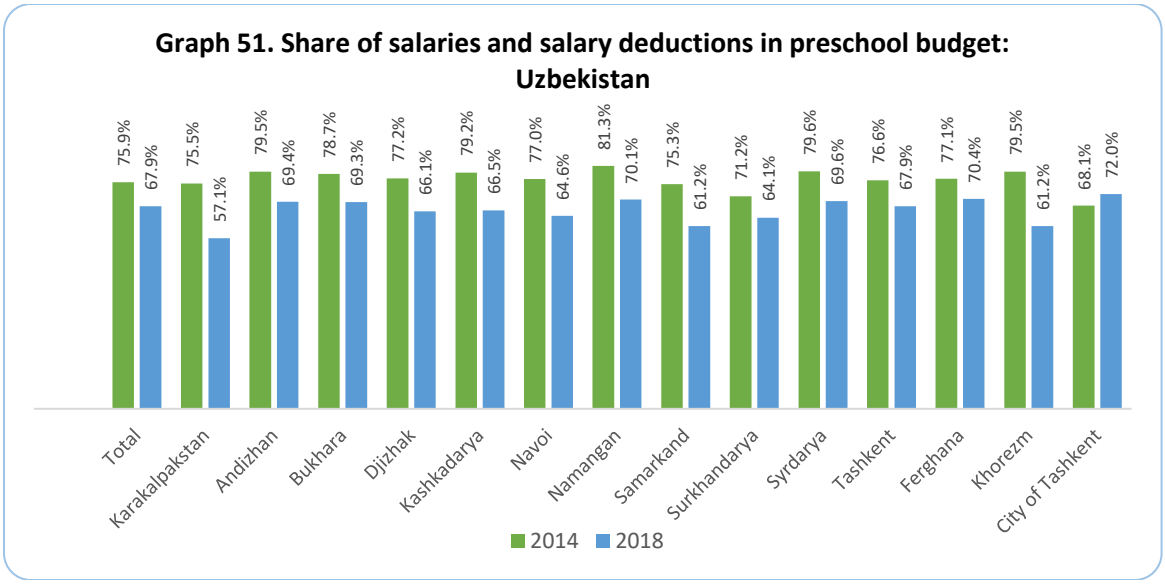


Source: UNICEF (2018) estimates using MOF data



An analysis of per student (enrolled child) shows that: (a) per student allocations by all regions in their local budget for preschool education has increased in the last two years (clearly after the establishment of the Ministry of Preschool Education (MOPSE); (b) per child spending is highest inregions with low enrollments, indicating internal inefficiency of high costs due to non-economies of scale; and (c) in USD, the per student expenditures amount to more than 200-300 dollars. Kashkadarya has the lowest per student expenditures among all regions – it also the region, as evident from the previous graph that account for more than 7% of overall preschool enrollments, but account for only 4% of overall local budgets spent on preschool education. However, this may not be a bad sign – it may be due to more efficient spending, and may need further analysis to understand the efficiency-economy trade off.

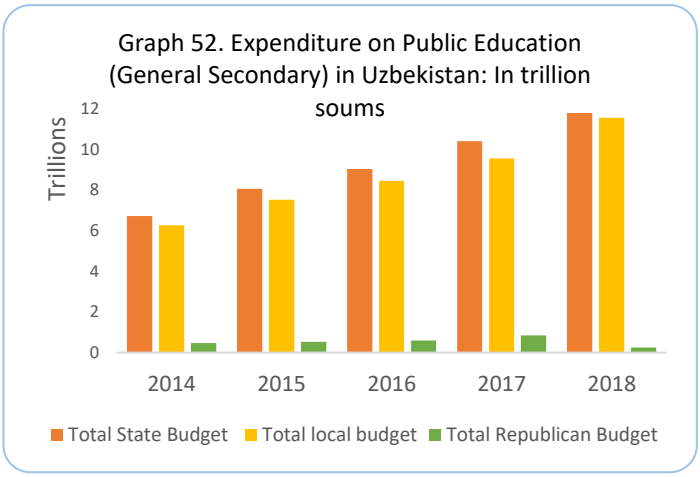
Further, an analysis of the composition of local budgets on preschool education provide more details about the salary-non-salary expenditures. Salaries and salary related deductions used to account for more than 75% of all local budget expenditures on preschool education in 2016. However, in 2018, the share of salaries and allied expenditures in local budgets got reduced to 68%, overall, and less than 70% in all regions. There are two reasons for this shfit in spite of an increase – almost double form 2014 - in overall spending in preschool education in local budgets: (a) introduction of an incentive fund, which accounts for an average 5% of the total local budgets on preschool education; and (b) increase in the share of "other expenditures from 24% to almost 27% in overall local preschool education budgets. This clearly shows some increasing diversification of local budgets for preschool education.



Source: UNICEF (2018) estimates using MOF data

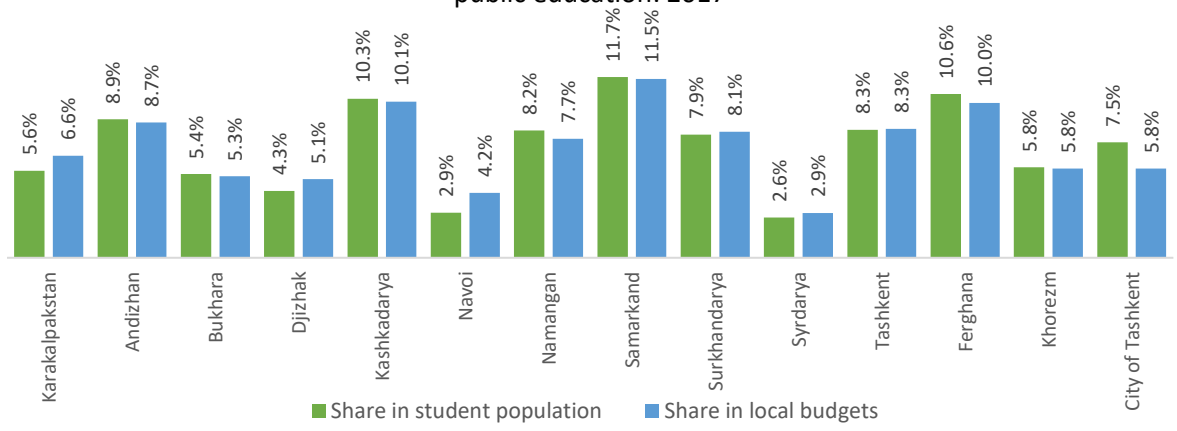
General Secondary Education Expenditures

Overall, the country spent around 12 trillion Uzbek soums for public education in 2018 compared to 6.7 trillion Uzbek soums spent in 2014. The share of local budgets in overall state expenditures on public education increased from 93% in 2014 to almost 98% by 2018. This is inspite of the increase in the shares of Republican budget from 6.8% in 2014 to 8.2% in 2017, but then again declining to around 2% in 2018.

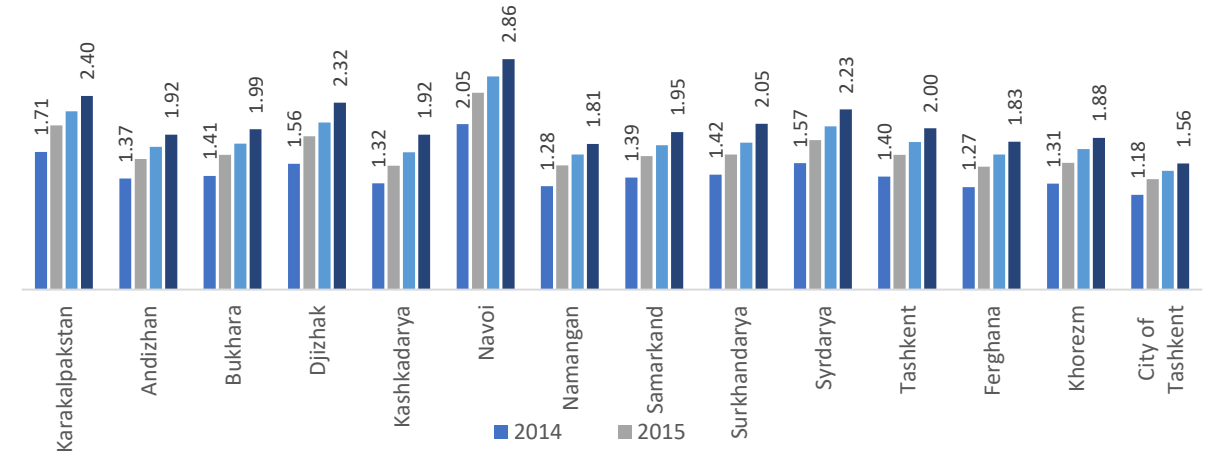


The share of regions in overall general secondary enrollments and in local budgets for public education were similar, indicating that in a near universal enrollment scenario, the spending follows the enrollments. However, analysis of per student expenditures by region shows interesting insights about economies of scale. Navoi, with the lowest concentration of general secondary students registered the highest per student expenditures. On the other hand, Tashkent city, which accounts for almost 8% of student population in the country registered the lowest per student expenditures. In USD terms, the per student expenditures on public education varied from $ 195 in Tashkent city to $ 357 in Navoi.

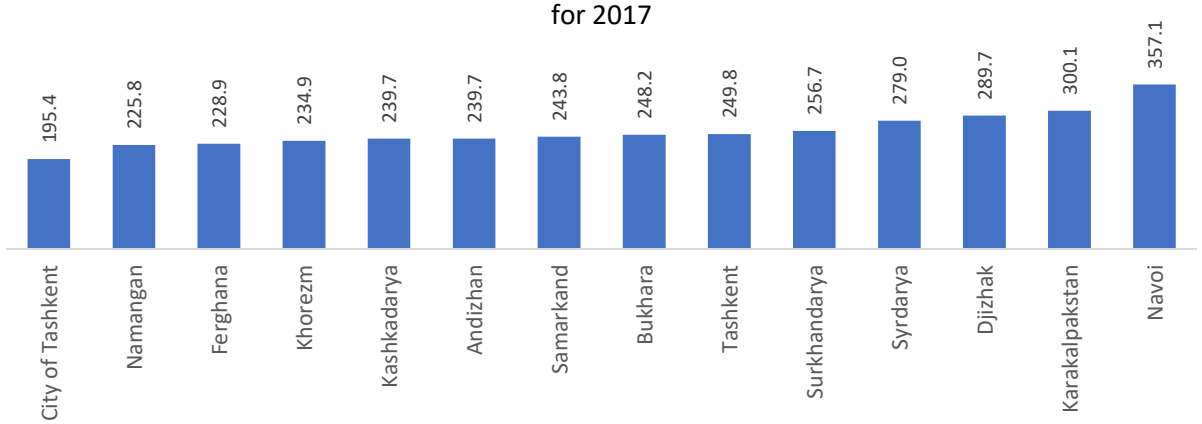
Graph 53. Share of regions in general secondary students and local budgets on public education: 2017



Graph 54. Per student Local Budget expenditures on Public Education (General Secondary) in Uzbekistan (in million soums)



Graph 55. Per student expenditures on public education in local budgets - in USD for 2017



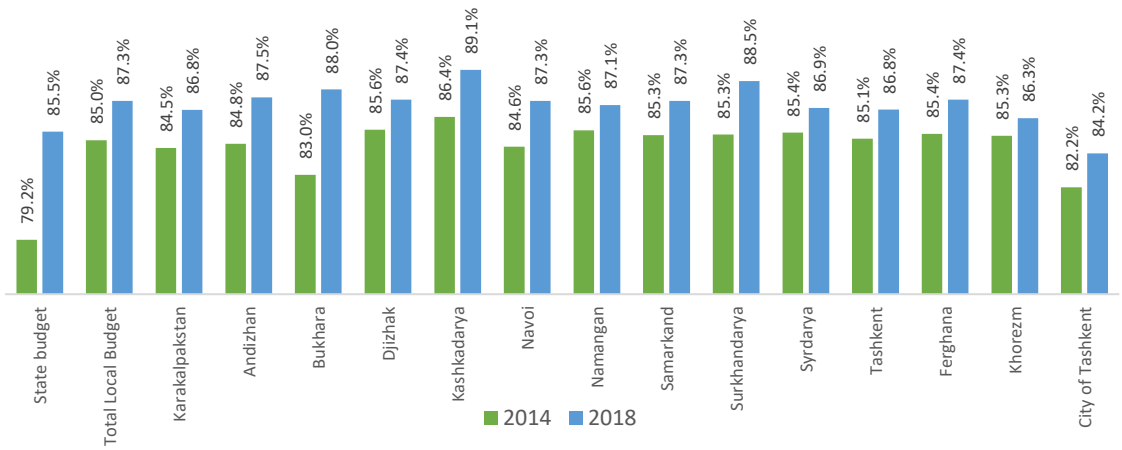
Source (for all graphs in this page): UNICEF (2018) estimates using data from MOF

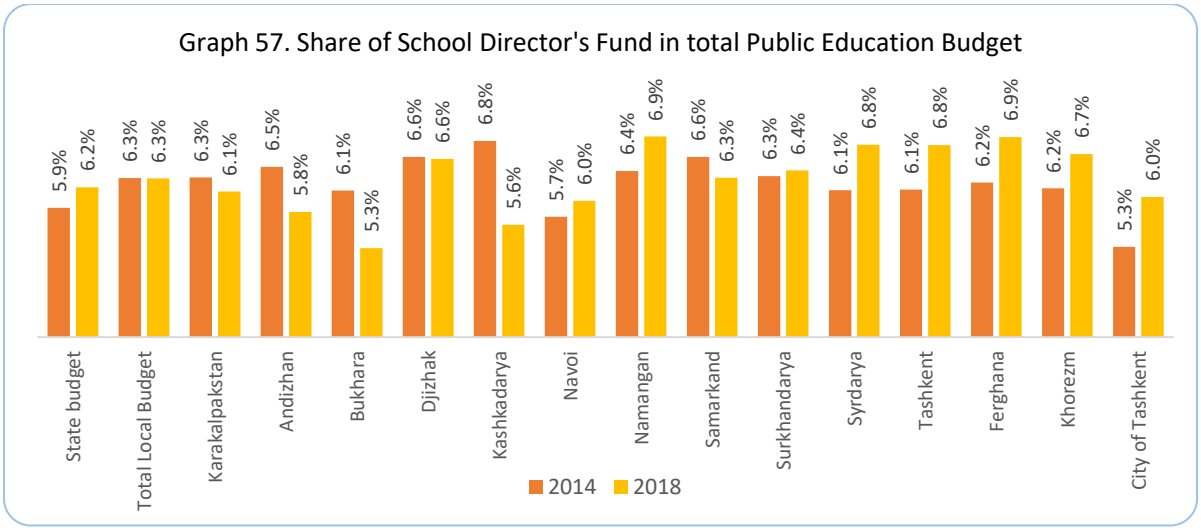
An analysis of the composition of Republican and local budgets on Public Education throw interesting results. While the overall state budgests on public education increased by 75% between 2014 and 2018, the expenditures on salaries increased by 90% during the same period, but the share of Republican budgets in total state budgets declined by 48%.

Of the Republican budget on education, funds for strengthening the material and technical base of educational institutions accounted for 83% of the expenditures in 2014, however, this share had come down to 76% in 2017 and to 20% in 2018. On the other hand, funds for textbooks, which accounted for 4% of the Republican budget for public education in 2014 has increased to 11% by 2017 and in 2018, it accounts for 39% of the budget – meaning, in real terms, allocations for textbook funds increased by more than 4 times between 2014 and 2018. Expenditures for National Education support institutions (such as Republican Education Centre, Avolony etc.) increased by almost 68% during the period between 2014 and 2018, though these expenditures account for a small proportion of Republican Education budgets.

In the Local Budgets for public education, a major category of expenditure is on salaries and salary related deductions. Together they accounted for 80% of overall education budget in 2014, which has increased to 85.5% by 2018. Another important item of expenditures in the Local budget for public expenditures is related to School Director's Fund. The allocations for the fund accounted for 5-7% of the Local Budgets on Public Education. These are the funds that the School Directors use for paying incentive rewards for teachers on the basis of their performance. In other words, these funds are also mainly related to payment of incentives to several teachers (though not all). If we add both salary expenditures and School Directors' Fund, cumulatively they will account for more than 90% of Local Budgets on Public Education. The remaining expenditures – around 6-9% of the local budgets on public education, is perhaps what is going into various developmental activities and utility payments.

Graph 56. Share of salary and salary deductions in the budgets of Public Education (Total and regional budget wise)




Graph 57. Share of School Director's Fund in total Public Education Budget
5.9%
6.2%
6.3%
6.3%
6.3%
6.1%
6.5%
5.8%
6.1%
5.3%
6.6%
6.6%
6.8%
5.6%
5.7%
6.0%
6.4%
6.9%
6.6%
6.3%
6.3%
6.4%
6.1%
6.8%
6.1%
6.8%
6.2%
6.9%
6.2%
6.7%
5.3%
6.0%
State budget
Total Local Budget
Karakalpakstan
Andizhan
Bukhara
Djizhak
Kashkadarya
Navoi
Namangan
Samarkand
Surkhandarya
Syrdarya
Tashkent
Ferghana
Khorezm
City of Tashkent
2014
2018

4 ESP Strategic Vision and Implementation

4.1 Overall vision of the Second ESP

The second ESP takes a holistic approach to education sector planning in Uzbekistan based on a set of *jointly formulated objectives or policy goals* which have relevance for each sub-sectors of the education sector, and whereby educational Ministries and related sub-sectors closely cooperate towards achieving ***the ultimate goal*** for the Education Sector, congruent with the National Action Strategy on Five Priority Development Areas 2017-2021, which is:

"Children and youth prepared for life through quality education and life-long learning, leading to an improved quality of life, enhanced job opportunities and a consistent increase in real income"

This overall goal also differs from the one envisaged in the first ESP which foresaw the key role of education as preparing the learner to progress from one educational sub-sector to the next, with the main objective for every educational sub-sector being to facilitate the transfer to the next educational level. The new ESP takes a much wider perspective beyond the more traditional education sectors, by aiming at "life-long learning" and stressing the importance of "preparation for life", i.e. being able to make a decent living with good income earned through employment and discharging all duties towards being a socially responsible citizen.

4.2 Overall strategic design

The overall strategic design is determined by the three educational ministries, subordinate institutions and educational implementation agents, whereby every Ministry has specific responsibilities in line with the more traditional definition through "sub-sectors". For the overall coordination, it is envisaged to establish a *National Council on Development of Education*, probably under the Cabinet of Ministers, to collaborate closely with the *State Inspection for Supervision of Quality in Education*:

Table 20. Educational implementation agents and their specific responsibilities

National Council on Development of Education		
Ministry of Preschool Education	**Ministry of Public Education**	**Ministry of Higher and Secondary Specialised Education**
Preschool Education	General Secondary Education	Higher Education
Retraining and In-service Training of Preschool Administrators and Specialists	Extra-Curricular Education ("Out-of-School Education)	Professional Education
		Non-Formal Education
	Retraining and In-service Training of Managers and Specialists	Retraining and In-service Training of Teachers and Specialists

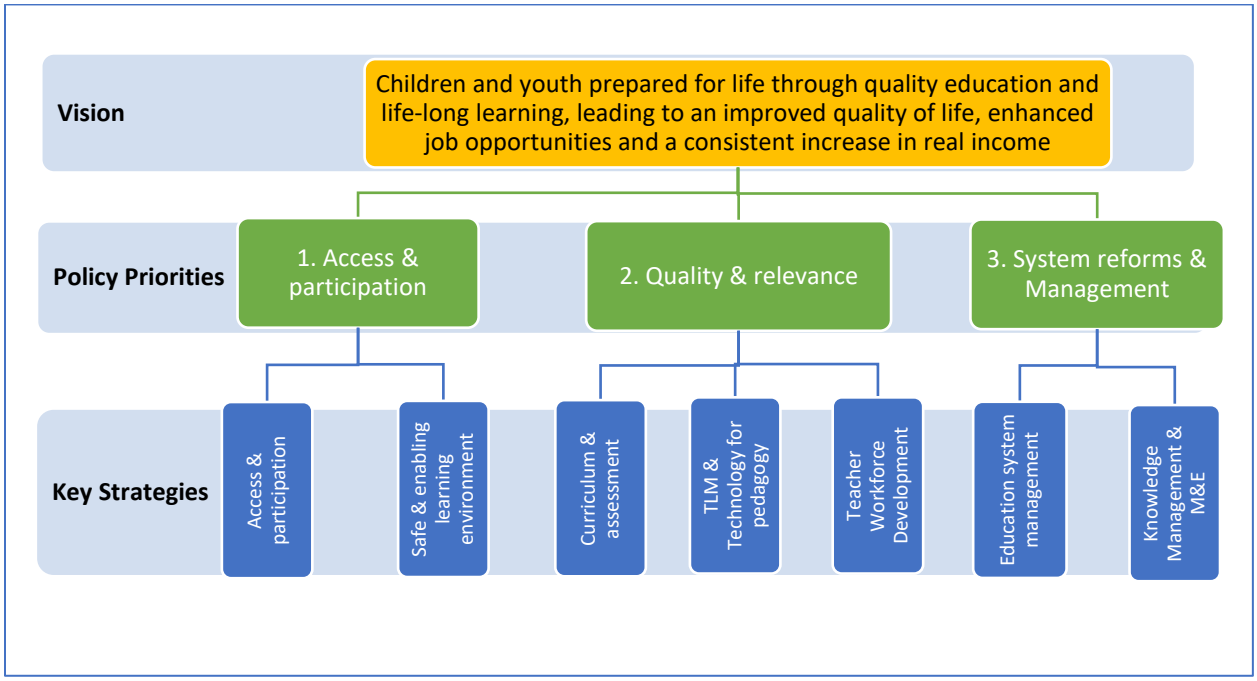
4.3 Theory of change and the Key strategic areas to realize quality education

For the ESP 2018-2023, three overarching policy goals and seven key strategic areas for improvement have been identified for all educational sub-sectors based on a sector diagnosis and subsequent development of a theory of change,[109] which need to be addressed by all three educational ministries in order to realise the **overarching goal of preparedness for life through quality education for all**.

The ESP II, through its Theory of Change (TOC), has identified three policy priorities (goals) and seven key strategies (programmes) for all subsectors of education in the country. These are presented in the overall TOC chart and table below.

The vision, as already stated, is to prepare children and youth for life through quality education and life-long learning, leading to an improved quality of life, diverse job opportunities and a consistent increase in real income. To achieve the long-term vision, it is important to set the policy priorities/ goals and outcomes clear – In the case of education, the first goal is to ensure that all children and youth have equitable access to various sub-sectors of education and have an opportunity to participate in the process. The second goal is that all children and youth have, through the process of participating in any sub-sectors of education, have received quality and relevant education, which is reflected through improved learning outcomes. The third goal is that the education systems achieved the access and quality results through improved efficiency and efficacy of the system, achieved through systemic reforms and management.

Chart /Figure 58: Theory of change: The higher level broader sectoral causal chain



For each of the three policy goals, there are targeted strategies that the ESP proposes each education sub-sector to adopt. For the policy goal related to access and participation, two key strategies are

[109] The strategic design including the identification of the key strategic areas has been one of the key outputs of the three-day ESP development workshop conducted from 24-26 July 2018.

proposed here: (a) Strategies to enhance access (supply) and participation (demand) for education; and (b) safe and enabling learning environment to ensure that children are retained in the system (internal efficiency of education.

For goal 2 related to quality and relevance of education, three strategies are planned: (i) enhancing curriculum, teaching learning process (pedagogy) and assessment mechanisms; (ii) enhancing the availability and quality of teaching-learning materials and equipment, including the use of Information, Communication Technology (ICT) as an effective pedagogic tool; and (iii) Teacher work-force development.

Policy goal 3 is related to the systemic reforms and enhancements aimed at improving service delivery and efficient and effective achievement of access and quality results in an equitable manner. There are two main strategies planned under this policy area: (a) education system strengthening and enhancing the accountability mechanisms; and (b) knowledge management, including research, monitoring and evaluation strengthened to ensure evidence-based decision making in education sector.

Table 21. Overall Policy priorities and strategic programmes: Description

Policy Priorities/ Goals	P1. Ensuring equitable access to and participation in education at all levels	P2. Enhancing the quality and relevance of education at all levels to improve learning outcomes and competencies/skills	P3. Enhancing service delivery for efficient, effective and equitable distribution of results on access and quality
Strategic Areas (programmes)	Area1. Equitable access to and participation in education is achieved by demand side and supply side (expansion of educational infrastructure) interventions	Area 3. Competencies and learning levels of students are enhanced by providing relevant and appropriate competency-based curriculum, enriching teaching-learning experiences and assessing their learning by robust assessment systems	Area 6. Education service delivery is enhanced by systemic reforms, effective management of education system, enabled by better capacity at all levels
	Area 2. Equitable access and participation in education is ensured by providing physically and socially safe, inclusive and conducive learning environments for children/youth	Area 4. Quality of teaching and learning is boosted by providing and effectively using appropriate teaching-learning materials, and ICT integration as a value-added pedagogical and management tool.	Area 7. Education service delivery is supported by evidence based policies, programming and monitoring, facilitated by an Education Management Information System (EMIS) and targeted research
		Area 5. Quality of education is improved by teacher work force development, especially by building their capacity and enhancing the prestige/status of the profession.	

4.4 Detailed description of Strategic Areas

4.4.1 Strategic Area 1. Access and Inclusion (Expansion and Enabling Infrastructure)

"Strengthening the material-technical base of educational institutions by construction, reconstruction and repair, equipping with modern teaching and laboratory equipment, computers and teaching aids" is part of the National Action Plan (Priority Area 4, sub-area 4.4) and has relevance for all educational sub-sectors, particularly Preschool education which requires substantial investments in line with the ambitious expansion targets set for 2021 and 2031 respectively. Enabling infrastructure will include modern educational laboratories, enabling the use of modern electronic training programmes.

Through increasing the role of public-private partnerships (PPP) the sources of financing of public education can be diversified, particularly in the field of preschool education. The second ESP will further align this strategy with equity concerns, to support already disadvantaged communities through subsidies to ensure that they can benefit from such PPPs in the same way as children from better-off families. In general, it is aimed at establishing an enabling infrastructure also with a view to enhancing access for those from the poorer spectrum of society, including learners with special educational needs (also requiring renovation of schools to ensure a barrier-free environment).

The issue of Inclusion, including education for learners with special educational needs (SEN), has been integrated in a cross-cutting manner into existing policies, for example through the proposed *National Quality Education Conceptual Framework* and current state educational standards. The second ESP continues to regard inclusion as an issue which needs to permeate the whole educational system and all its sub-sectors, although work is still required to reflect the *obligation* of the state to create equitable access to quality learning for all. In addition, the 2nd ESP will put new emphasis on the identification of children out of school, i.e. children that have never been enrolled or dropped out of school at an early stage and have since never returned. Once the scope of the problem has been established, it will be necessary to develop specific strategies to remedy it, probably by means of close cooperation with the international Out-of-School Children[110] Initiative (OOSCI).

The issue of access and participation also needs to be looked at from the rights-based approach and the 4 "A" s –Availability, Accessibility, Acceptability and Adaptability[111]. Availability refers to education being available, and basic education available free and with adequate infrastructure, trained teachers and materials. Accessibility refers to education system being accessible to all without discrimination, especially with positive steps taken to include the most marginalized. Accessibility implies that the content of education must be relevant, non-discriminatory, culturally appropriate and of good quality and schools must be safe and teachers should be professionally trained. Finally, Adaptability means education must evolve with the changing needs of society and it must be adapted to the local context.

[110] As from the 2nd ESP, the term "out-of-school children" will be internationally defined as children having never been enrolled, dropped out or being at the risk of dropping out. The previous notion of "out-of-school children" as used kin the 1st ESP will now be referred to as "extra-curricular education/activities".
[111] For more details, refer to Tomasevki, K (2001 & 2004)

Table 22. Tomasevski's 4A's to Core human rights obligations in education					
Right	**4A's**	General **Description** of obligations	Government's **Obligations**	Area	Nature of obligations
Right to Education	**Availability**	• Ensure compulsory and free education for all children in the country within a determined age range, up to at least the minimum age of employment. • Respect parental freedom to choose education for their children, observing the principle of the best interests of the child.	• Fiscal allocations matching human rights obligations • Adequate number of Schools for children (number, diversity) • Teachers (education & training, recruitment, labour rights etc.)	Schools	• Establishment/closure of schools • Freedom to establish schools • Funding for public schools • Public funding for private schools
				Teachers	• Criteria for recruitment • Fitness for teaching • Labour rights • Trade union freedoms • Professional responsibilities • Academic freedom
	Accessibility	• Eliminate exclusion from education based on the internationally prohibited grounds of discrimination (race, colour, sex, language, religion, opinion, origin, economic status, birth, social status, minority or indigenous status, disability). • Eliminate gender and racial discrimination by ensuring equal enjoyment of all human rights in practice, rather than only formally prohibiting discrimination.	• elimination of legal and administrative barriers • elimination of financial obstacles • identification and elimination of discriminatory denials of access • elimination of obstacles to compulsory schooling (fees, distance, schedule)	Compulsory	• All-encompassing • Free-of-charge • Assured attendance • Parental freedom of choice
				Post-Compulsory	• Discriminatory denials of access • Preferential access • Criteria for admission • Recognition of foreign diplomas
Rights in Education	**Acceptability**	• Set minimum standards for education, including the medium of instruction, contents and methods of teaching, and to ensure their observance in all educational institutions. • Improve the quality of education by ensuring that the entire	• parental choice of education for their children (with human rights correctives) • enforcement of minimal standards (quality, safety, environmental health) • language of instruction • freedom from censorship	Regulation and Supervision	• Minimum standards • Respect of diversity • Language of instruction • Orientation and contents • School discipline • Rights of learners

		education system conforms to all human rights.	• recognition of children as subjects of rights		
Rights through Education	**Adaptability**	• Design and implement education for children precluded from formal schooling (e.g. refugeseeking or internally displaced children, children deprived of their liberty, or working children). • Adapt education to the best interests of each child, especially regarding children with disabilities, or minority and indigenous children. • Apply indivisibility of human rights as guidance so as to enhance all human rights through education, such as the right to marry and raise a family, or the right to freedom from forced and child labour.	• minority children • indigenous children • working children • children with disabilities • child migrants, travelers • concordance of age-determined rights • elimination of child marriage • elimination of child labour • prevention of child soldiering	**Special Needs**	• Children with disabilities • Working children • Refugee children • Children deprived of their liberty

Source: Sankar, D (2018), UNICEF

In the context of Uzbekistan today, accessibility issues are specifically relevant for Preschool Education (according to the expansion of Preschool, particularly with a view to remote and otherwise disadvantaged areas and communities), Higher Education (with regard to admission quotas and the considerably lower enrolment of women) and Non-Formal Education for the unemployed (regarding the limitations in the availability of training centres, although this is an issue currently being addressed by MoELR with the assistance of KOICA).

Likewise, the National Action Strategy refers to accessibility within the framework of Preschool (4.4: "expansion of the network of Preschool institutions" and "significant increase in enrolment in Preschool education"); Higher Education (4.4: "gradual increase in admission quota in higher education institutions"); and Non-Formal Education (4.4: "construction of new, reconstruction of the existing children's sport facilities and children's music and art schools"; "training of qualified personnel in accordance with the modern needs of the labour market"). Further, as a cross-cutting issue special consideration needs to be given to children with special educational needs, in all educational institutions (National Action Strategy 4.2: "state support for (…) persons with disabilities").

Availability is closely related to accessibility, but redirects the focus on infrastructural issues, i.e. construction, reconstruction and renovation of educational institutions. This is also reflected in the National Action Strategy (4.4: "implementing targeted measures to strengthen the material-technical base of educational institutions by construction, reconstruction and repair, equipping with modern teaching and laboratory equipment, computers, teaching aids").

4.4.2 Strategic Area 2: Safe and enabling learning environment

This ESP will put a strong focus on the development and implementation of the "safe and conducive learning environment at educational institutions" concept to promote three aspects: (i) ensuring that the physical infrastructure and facilities therein is of adequate quality as per safety standards; (ii) educational institutions are prepared for reducing disaster risks and emergencies (such as earthquakes); and (iii) educational institutions have the right programmes and measures to address violence in the institutions (for example, bullying, crimes, harassments etc.). This will be a response to the increasing number of offenses among school children which increased in 2016-2017 from 418 to 435, and also the rising number of suicides among school children from 151 to 174 in the same period.[112]

Issues related to institutional safety is relevant from the early ages throughout the education system and will be based on the age-specific requirements of the respective educational sectors. Under the second ESP, capacities will be increased to promote healthy, safe and protective school /institutional environments in line with the child-friendly schools' principles. This will include the improvement of WASH facilities (Water, Sanitation and Hygiene) such as the provision of safe water and improved conditions for hand washing, functional gender-disaggregated toilets.

Uzbekistan, with more than half of the population living in areas of high seismic activities, is at considerable risk of two natural hazards: earthquake and floods. Children are the most 'at-risk' groups during natural hazards and man-made disasters. Global evidences suggest that areas experiencing extensive disasters witness decreased school enrolment rates and increased dropout rates. Introducing disaster risk reduction (DRR) and emergency preparedness through education has the potential to not only enhancing the education system's preparedness for responses to disasters, but also for addressing

[112] *Cf* Presidential Reform Agenda for the public education system of the Republic of Uzbekistan, identified at a special meeting with the Cabinet of Ministers on July 17, 2018.

the challenges for children as well as for building community's resilience to natural hazards and disasters. Under the second ESP strategic area on safe and enabling learning environment, students' knowledge and skills to handle disasters and emergencies is of utmost imporatance. The Government will work towards the development of strategies for safe behaviour and disaster risk reduction for schools and other educational institutions, together with materials on topics such as environmental hazards and climate change and their impact on people in order to raise children's awareness of the need to reduce activities harmful to the environment.

Ultimately, a pilot model "schools of the future" will be created in each region during the 2018/19 academic year for the subsequent scaling-up of similar schools throughout the country, including the ones based on Public-Private Partnerships (PPPs).

The "Acceptability" of Tomavski's 4 "A" scheme also refers to safe environment in school, as violence or inclusion issues also rely on existing customs and mindsets which might hinder groups of the population to not accept and/or subscribe to a specific element within the educational system. This particularly refers to issues related to inclusive education (with a very low proportion of SEN students currently integrated into mainstream teaching), gender issues especially with regard to higher education (women have considerably lower enrolment in the universities when compared with men, in contrast to general secondary enrolment, where no such disparity exists), and also Non-Formal Education (as an accepted means to re-enter the labour market).

In this regard, the *State Programme on implementation of the National Action Strategy* (Annex to Presidential Decree #5308) makes interesting references to issues fostering acceptability, related to the rights of persons with disabilities (reference # 143: implementation of the requirements of the UN Convention on the Rights of Persons with Disabilities and international standards into the national legislation, substitution of the concept *disabled with person with disability*); and the rights of youth (reference # 217: "ensure rights and freedoms of young people, and guarantees for their implementation; "establish cooperation to ensure that young people get education in line with international standards").

4.4.3 Strategic Area 3: Curriculum, pedagogy and assessments

Quality of curriculum is an important building block in ensuring children's learning outcomes improves and youth's potential in the job market is enhanced. A key curriculum reform challenge is to develop and successfully implement a new basic education curriculum at various levels of education that is more relevant to all students, focusing on 21st century skills, soft skills (including personal development and employability skills) and higher order thinking skills.

The new curriculum must also reduce the content load to a manageable level to ensure that there is sufficient quality time for teachers to adequately cover the full curriculum within each academic year; and for students to understand new concepts and to develop higher order thinking skills appropriate for the country's modern economy and changing society needs. However, it must be noted that reduction in content need not necessarily mean reduced instructional time. Infact, the aim should be balancing the content and quality and nature of tasks to be carried out in classrooms to an optimal level.

The shift from a content-driven current curriculum to a more competency-based learning approach would require reforming the associated teaching-learning materials, especially the textbooks, together with an adaptation of the pre-service and in-service (re-)training of teachers and the overall approach to examinations and assessments of learning outcomes.

Curriculum development and reform under the second ESP will be rooted in the Education for Sustainable Development (ESD) approach, equipping learners with the knowledge, values and skills to participate in decisions about the way they do things individually and collectively, both locally and globally, and that will improve the quality of life in an ecologically oriented way. Cross-cutting the curriculum, ESD will support learners to learn about their environment; develop skills to investigate and solve issues in the environment; acquire attitudes of care and concern for the environment; and adopt behaviours and practices which protect the environment, very much in line with the 5th priority of the National Action Plan which calls for a "prevention of environmental problems, causing damage to the environment" (sub-area 5.1).

The curriculum needs to serve as an *enabler* of change by integrating key sustainable development issues such as climate change, biodiversity, gender equality, water and health promotion into teaching and learning. Teachers have a responsibility to ensure that learners develop an awareness and understanding of, and respect for, the environment in which they live. They must also encourage changes in learners' behaviour that will contribute to a sustainable future. STEAM subjects (science, technology, engineering sciences, art and mathematics) are the main carriers of ESD at the general secondary level, but all subjects contribute to sensitising learners to age-appropriate ways in which they can respect and care for the environment.

Due to the curriculum reform process with its new focus on competency-based learning outcomes – in line with the new Law on Education and also the National Action Strategy with regard to upbringing "independently thinking youth", thus realising the "creative and intellectual potential of the younger generation" (Sub-Area 4.5) –, textbooks need to be updated and produced in large numbers particularly for Preschool and General Secondary Education, together with teachers' guides and revised training materials for educational professional colleges and institutions of higher learning which are charged with the training of teachers.[113]

The system of preparation and publication of textbooks will be revised. This refers to methodological and didactic manuals, as well as creating new, modern textbooks with the involvement of the world's leading publishers. In addition, based on the Presidential Resolution #PP-3304 of 30 September 2017 "On advancement of Activities of MoPE", new responsibilities have been assigned to the Republican Education Centre (REC). Concrete changes in responsibilities included changes in titles of sections, (resulting in a loss of 22 specialists) and the new "Department of innovations introduction into educational process". Sections responsible for Social Science were removed, as were sports and music schools (now under MoPE and the Ministry of Sports respectively). Following the revised role of the REC, implementation under the second ESP will need to address issues related to the mechanism of textbook production, also giving more influential role to the REC. This will also create more opportunities of influence on the bidding process and contents, in line with introducing "effective mechanisms for dialogue with the people" (National Action Strategy, Priority Area 1, Sub-Area 1.3).

4.4.4 Strategic Area 4: Teaching Learning Materials, including use of ICT for pedagogy

While the National Action Strategy calls for a "radical improvement of the quality of general education" (Sub-Area 4.1), supported by the Presidential Decree #PP-3304 with regard to the "introduction of modern advanced forms of learning", the notion of "quality education" is closely interconnected with

[113] Textbooks already developed in 2017 for 18 subjects on the basis of the new standards (with a focus on competencies), need to be changed again in order to incorporate the expansion of general secondary education to 11 years.

modern educational methodology at classroom level, the point where methodological reform processes show their impact. This will be supported under the 2nd ESP through the establishment of a newly planned *Agency for the Development and Implementation of ICT in the Public Education System*.[114]

The methodological performance of the teacher plays a central role since s/he stays at the centre of delivering educational quality, with the mere enrolment of teachers, the distribution of books, the upgrading of educational facilities not necessarily creating a difference on their own if teachers (through their training) are not put in a position to make the transfer in their day-to-day teaching.

In other words, the impact of modern and stimulating educational methodology is a decisive factor for the improvement of educational quality, generally comprising three interlinked performance standards, i.e. (i) the quality of teaching and learning in the school; (ii) students' personal development and safety; and (iii) the effectiveness of leadership and management of the respective school.

The laboratory infrastructure is weak throughout the education sector, particularly in Higher education. The second ESP will achieve an overall improvement across the sub-sectors – including the issue of introducing wider use of ICT at Preschool and optimising ICT at General Secondary level. In particular, the 2nd ESP will aim at progressively connecting all schools to the broadband Internet (not less than 10 MB/s) and equipping them with modern computer equipment (currently only 72% of schools have computer classes, of which only 37.2% have modern equipment and only 7% are connected to the Internet). The "school of the future" will provide computerised and technological classes, laboratories, canteens that meet all sanitary requirements, sports facilities, video cameras, and single school desks. It will serve as an example what to achieve in the development of each school in the country, including on the basis of public-private partnerships.

4.4.5 Strategic Area 5: Professional status of teachers and educational staff

The professional status of teachers and educational staff will be increased through legal measures and by means of constant professional upgrading.

With regard to legal measures, it is intended to improve the image of teachers by increasing the level of salaries within the system of preschool and general secondary education; by imposing a complete ban on engaging the employees of MoPE to the activities not related to their direct functional duties (e.g. cleaning of outside areas and landscaping, presence at various meetings, attending of private residences for the purpose of utility bills payment cross checking, etc.), as well as forced deductions from the salaries of teachers and employees (mandatory subscription to newspapers and magazines, advance utility payments, tickets for various events, etc.); by eliminating inspections of public education institutions without prior agreement with MoPE and a three-year ban on financial fines against the heads of educational institutions for all breaches identified for the first time; and by establishing the *Control and Legal Service of the Minister*, with assigning to it the functions on internal supervision, protection of rights, honour and dignity of the public education staff, as well as a Call Centre (hotline) under MoPE, where teachers, parents, school children and others can report possible violations. In addition, a number of additional benefits are being considered under the 2nd ESP, such as the creation of a support system for teachers and their families, comprising preferential mortgage loans for a period of

[114] Cf Ibid.

25 years, as well as loans for the purchase of cars. Moreover, banks will be advised to give loans on preferential terms to members of families of teachers to start their own business.[115]

Regarding professional support and capacity building of teachers, the current teacher training system of Uzbekistan faces **two main challenges**, i.e. (i) it needs to prepare teachers of all subjects and at all levels of the education system well enough to enable them to develop their learners' personalities; and (ii) it needs to provide teachers and instructors of specialised subjects in professional education with the qualifications they need to prepare their learners for a competitive labour market. The National Action Plan calls explicitly for "raising the level of qualifications of teachers and specialists" (Priority Area 4.4), in order to "radically improve" the quality of education in the various sub-sectors. The 2nd ESP will operationalise such teacher support at various levels, i.e. referring to the training of teachers (Preschool, General Secondary Education, Professional Education), instructors (professional education), teacher trainers (for teacher training & re-training), lecturers (Higher Education) and trainers (Non-Formal Education through MoELR for the unemployed). In addition, all the pedagogical staff needs to be constantly upgraded to identify and to respond to special educational needs of learners wherever required. This key strategic Area therefore relates to a broad variety of target groups for different kinds of teacher training, together with related training to other educational staff (such as educational administrators at various levels of the system, including head teachers at school level). Further, it touches upon issues such as service conditions (salaries, incentives), professional upgrading and professional status.

Over the past decades, many countries have adjusted teacher policies as both a result of new insights into learning processes and altered perceptions of the role of education in their society. Voluntarily or not, teachers nowadays assume a much broader role than previously. The intensified focus on learner-centeredness will result in teachers being expected to change their approaches in an area which is at the core of their professional activity: the initiation and management of learning processes. While the goal of learning processes used to be the acquisition of knowledge and its reproduction, school education is now to a considerable extent perceived as a means for the development of the learner's personality. Competences related to the domains of "learning to learn" and "interpersonal and civic competences" are to be developed through the teaching of all subjects.

The secondary specialised education system experiences serious difficulties in ensuring the necessary level of qualification of teachers and instructors for specialised subjects. Graduates of higher education institutions enter their career with insufficient practical preparation, and professional education finds it difficult to attract experienced staff from the economy. As a result, professional education teaching staff are not always able to prepare their students for a competitive labour market.

4.4.6 Strategic Area 6: Systemic Reforms and Management

This key strategic area applies to all educational sub-sectors and is also closely linked to Priority Area 1 of the National Action Strategy, particularly 1.2 (Reforming the government system) and 1.3 (Improving the Public Management System).

As the Situation Analysis has demonstrated, there are issues concerning system efficiency, especially with regard to the general education sub-sector in particular and the institutional design of the education sector in general. The fact that the educational sector is run through basically four ministries

[115] *Cf* Aziz Abdukhakimov [Deputy Prime Minister] on the schools of the near future. In: Uzbekistan Today, 21 July 2018.

(MoPSE, MoPE, MoHSSE and partly MoELR with regard to non-formal vocational education for the unemployed), together with the Centre of Professional Education (CPE, formerly PE (previously SSPE)) under MoHSSE, raises concerns on system effectiveness. Since at the moment there is no formalised process of harmonisation – neither in terms of policies nor with regard to monitoring – synergetic effects cannot be expected to be generated. On the contrary, Ministries appear to compete with each other on competencies and jurisdictional authority for institutions under them (as could be observed during the process of institutional transfers in connection with the reallocation of responsibilities between MoPE and MoHSSE). Under the 2nd ESP, the establishment of a *National Council on Development of Education* is foreseen to address and facilitate the issue of inter-ministerial cooperation.

Further it is intended to revise the governance structure of MoPE with the aim of effectively implementing reforms, granting of the right to the Minister of Public Education to make changes in the governance structure of MoPE and to make decisions on all issues of the sphere of public education (state educational standards, academic curricula, incentives for employees, independent formation of expenditures in the sphere of public education, etc.). In particular, modern methods of school management are to be introduced, taking into account the formation of the Supervisory Boards composed of active parents, successful graduates of schools, and other agents, and also separating responsibilities between the principal/director (manager) and his/her deputy (teaching and educational activities). Supervisory Boards will have the right to elect directors on the recommendation of MoPE, and to control budgetary and extra-budgetary funds of schools, including the director's fund.

Under the second ESP, school principals/directors will attain a much stronger role as managers. In schools, corporate management will be introduced, taking into account the division of responsibility between the principal/director (manager) and his/her deputies (teaching and upbringing activities), the introduction of a certification system for school directors and upgrading their skills under the guidance of MoPE.

Improved management will aim at ending the unreasonable interference of outside organisations in the educational process. During the 2017/2018 school year more than 200,000 inspections were carried out in schools by various instances, distracting from the direct responsibilities of either teachers or the school administration. It is intended to obtain an exclusion of inspections without coordination through MoPE, as well as a prohibition for three years of applying financial penalties in relation to employees of educational institutions for first time detected violations. At the same time, it is suggested for the inspecting bodies and *Khokimkiyats* to provide any assistance in eliminating and preventing such violations in the future.

State educational standards will be based on international best practices, taking into account national circumstances, defining clear learning goals and key competencies that a learner must attain at each stage of the educational process. Likewise, learning assessments will need to go beyond information on the average scores achieved by the students. [116.] To understand why some children or a large proportion of children are not learning, it is important to collect information on various parameters, i.e. learner characteristics such as family and socio-economic background, school readiness, aptitude, barriers to learning; teaching and learning processes such as learning time, pedagogical methods, incentives; and enabling school inputs, such as teaching learning materials, physical infrastructure, human resources at school, school governance, etc. Overall, it will be important to raise the capacities of the system to a

[116] For example, the latest available official learning assessment data from MOPE (2013) shows that only 63.4 percent of the tested students were able to meet the minimum standards set by the government for learning, with huge variations across regions and over the years.

level where learning outcomes can be used to inform policies and decisions in education. In that context, Government considers participating in TIMSS and PISA as from the school year 2018/19.

Parent and community participation is key to ensuring ownership of strategies and sustainable success. In particular, this will refer to the development of effective and acceptable models for the expansion of Preschool education (especially with a view to assessing community acceptance of PPPs), and to the formation of the Supervisory Boards at school level. One of the key objectives of the National Action Strategy, i.e. "introduction of new effective tools and methods to establish an open dialogue with the public administration system" is providing a good foundation for community participation also within the educational realm.

An important activity that will be undertaken as part of system strengthening is related to the wider dissemination of the Education Sector Plan itself.

4.4.7 Strategic Areas 7: Monitoring & Evaluation including EMIS

The Presidential Resolution #PP-3304 explicitly calls for a "systematic monitoring of implementation of state educational standards and requirements for institutions of general secondary and out-of-school education". MoPE Departments (with their specific Sections) address a broad range of key educational issues, i.e. (i) improvement of educational standards; (ii) textbook development; (iii) training and retraining of pedagogical staff; (iv) teaching and learning processes in schools; (v) inclusive education concerns; and, finally, (vi) monitoring and evaluation.

The Key Strategic Area Monitoring & Evaluation therefore points to the need for a **harmonisation of existing monitoring procedures in order to ensure a comprehensive understanding of the education sector**, whereby one sub-sector is directly interrelated with the other, very much in line with a progression of sub-sectoral outcomes towards an overarching sector objective, probably phrased according to the National Action Strategy as an "consistent increase in real income and job creation" (Key Priority 4, Sub-Area 4.1), ultimately improving the quality of life for all people of the Republic of Uzbekistan.

Within the overarching framework of institutionalisation of quality concepts, capacity building (at institutional level) under the second ESP includes the strengthening and harmonisation of existing monitoring systems across all three educational ministries, both regarding quantitative and qualitative elements. Especially regarding qualitative monitoring of educational quality, tailor-made capacity building is considered to particularly benefit those responsible for designing M&E strategies.

The 2nd ESP focuses on strengthening the institutional anchoring of M&E within MoPE, MoPSE and MoHSSE (partly MoELR), in order to establish the prerequisites for following up on (additional) quality monitoring with a sector-wide perspective. This will also support issues related to strategic planning for the implementation of current policy, with particular attention being paid to knowledge and skills related to the assignment of responsibilities to the different actors, the coordination of cooperation, channels of communication, the setting of timelines as well as mechanisms for stocktaking.

With regards to quality monitoring, the 2nd ESP will also include indicators which capture the assessment of classroom practices and on-the-ground situations at school level. There is good international experience and best practice in the application of various scoring approaches, based on representative sampling surveys, a method which can be adapted to the Uzbekistan context.

In order to ensure easy data accessibility and reliability, a comprehensive education management information system (EMIS) and a unified database of schools will be established, covering particulars of learners, parents, teachers and other staff associated with systems and databases of pre-school, secondary and higher education, health, as well as financial and law enforcement agencies. In particular, EMIS needs to electronically cover all details with regard to school admission, transfer from one school to another, attendance and learning achievements. Electronic journals, diaries and tablets will then make it possible for teachers to save time on daily administrative routine tasks which currently can take up to four hours a day.

International exchange features prominently for the Higher Education sector and is also mirrored in the National Action Strategy (5.2: "further strengthening the place and role of the country as a full subject of international relations"; "strengthening the international image of the Republic of Uzbekistan"). This is a strategic area which in addition supports the international exchange already initiated during the implementation of the 1st ESP, and which generates important opportunities for Uzbekistan to present itself and its achievements to the international community. In turn, Uzbekistan will also be able to benefit from the experiences of other countries in the various educational sub-sectors, particularly when aiming at reaching international standards of excellence.

4.5 ESP key strategic areas in relation to operationalising the National Action Strategy

The chart below is placed at the highest systemic level and demonstrates how the various strategic areas are linked to the operationalisation of the National Action Strategy.

Table 23. ESP key strategic areas in relation to operationalising the *National Action Strategy*

ESP key strategic areas / **Priority areas in the National Action Strategy 2017-2021**	**Access and Inclusion (Expansion and Enabling Infrastructure)**	**Curriculum & Assessment**	**Systemic Reforms and Management**	**Professional status of teachers and educational staff**	**Institutional Safety & learning environment**	**Methodology & materials, including ICT**	**Monitoring and Evaluation including EMIS**
Ultimate outcome for <u>all</u> educational activity: 4.1 – Consistent increase in real income and job creation							
4.4 – Development of education and science							
Improving the system of continuous education	X	X					X
Increasing access to quality education	X						
Training of qualified personnel according to labour market needs			X	X		X	
Strengthening material-technical base of educational institutions	X				X		X

Table 23. ESP key strategic areas in relation to operationalising the *National Action Strategy*							
ESP key strategic areas / **Priority areas in the National Action Strategy 2017-2021**	**Access and Inclusion (Expansion and Enabling Infrastructure)**	**Curriculum & Assessment**	**Systemic Reforms and Management**	**Professional status of teachers and educational staff**	**Institutional Safety & learning environment**	**Methodology & materials, including ICT**	**Monitoring and Evaluation including EMIS**
Expansion of the network of preschool institutions	X						
Radical improvement of conditions in Preschool institutions	X	X			X		
Increase in enrolment in Preschool institutions	X						
Radical improvement of the quality of general secondary education		X	X	X	X	X	X
(Re-)construction of children's sports facilities and children's music and arts schools	X						
Improvement in the training and employment of students of professional colleges		X				X	
Improving the quality and effectiveness of higher education institutions	X	X	X	X	X	X	X
Stimulating research and innovation						X	
4.5 – Improving the state youth policy							
Upbringing of intellectually developed, independently thinking youth		X	X	X		X	
Employment and engaging to private entrepreneurship of graduates of professional education institutions	X		X			X	
Promoting a healthy lifestyle		X			X	X	
Arrangement of effective work of (…) educational institutions		X	X	X			X
5.1 – Security, Religious tolerance, inter-ethnic harmony							
Strengthening civil, inter-ethnic, inter-religious peace and harmony		X			X	X	
Prevention of environmental problems		X			X	X	
Improving the system of prevention and liquidation of emergency situations		X			X	X	

It should be noted that this list is not meant to be exhaustive, but would be rather continuously discussed and reflected upon in detail during ESP implementation.

4.6 Capacity assessment

Uzbekistan possesses a reasonably strong national capacity with regard to the development of national strategies and plans on reforming the education sector, as evidenced by the 1st ESP and also the *National Programme for Personnel Training*, programmes on development of infrastructure and improving competencies of educational institutions, and by the ongoing curriculum reform process. The existing capacity contributes significantly to achieving the SDGs. At the same time, there is a need for acquiring the knowledge on the latest international standards, practices and experience in the field of financial and programme management, and on developing the monitoring and evaluation system including the design of a comprehensive and harmonised EMIS for the entire education sector.

The country has sufficient capacity to implement projects and programmes in collaboration with international partners. The ongoing and completed international projects, included into various framework programmes, serve as an evidence for existing experience in planning and managing the projects at the national level, and in participating in international exchange. In order to further build upon existing capacities, further training, in particular management training for government officials, school directors and administrative personnel at national and regional levels, will be required. Further, there is a need for capacity building on monitoring systems, methods of monitoring, based on the best international practices, in order to ensure that the decisions made will be based on accurate, timely and universally accepted data and procedures.

Current training activities with a focus on improving the national capacity are provided with significant support from international institutions, who implement their projects in Uzbekistan (UNDP, UNESCO, UNICEF, WB, ADB, and others). Further development of the country's potential will be further enhanced by the selection of the most effective technologies and dissemination of those. It will be necessary to improve capacities for primarily six target groups:

- Government officials, who make decisions and can influence the public opinion;
- School directors/principals, who will change their focus to improved educational management;
- Other managers and executers of programmes and projects related to the ESP;
- Teaching methods specialists at regional and district education levels;
- Monitoring and evaluation specialists at all levels of the organisational structure within the education sector;
- Heads and teachers of professional training and higher education institutions.

4.7 Communication Plan

The plan for communicating and disseminating the second ESP targets the general public, project/programme implementers and development partners, also with a view to attracting investments (foreign and local through PPPs)and other stakeholders in regard to information, aimed at achieving the goals of the ESP. Communication activities will be carried out primarily through web-based information systems, as well as via meetings, working sessions, round-table discussions, dissemination of publications and electronic databases. Dissemination of information includes timely collection of information, and ensuring the access to information among the implementers of the ESP over the entire period of the whole implementation process. The mechanism of information collection and processing is based on the ESP Monitoring and Evaluation system (see Chapter 7) and will be carried out by several methods, i.e.:

- Regular round-table discussions with participation of all ministries and agencies holding responsibility for implementation of the ESP;
- Periodical regional orientation meetings with representatives of the education system (including students, teachers, parents and development partners), NGOs, private sector, and local authorities;
- Consultations on designing and disseminating materials among beneficiaries, parents and other stakeholders;
- Reports in the mass media to ensure regular publications on the process of the ESP implementation;
- Publications on the Ministries' and other educational websites, providing regular detailed progress reports on each component of the ESP and upcoming activities.

The Communication Plan will be elaborated and continuously expanded/improved based on the needs of each implementation period and in relation to the progress of the respective ESP activities and programmes. The feedback from all stakeholders generated through the communication plan will inform forthcoming revisions and adaptations of the Education Sector Plan and its related Action Plan.

4.8 Risk assessment

The Government is committed to implement the second ESP. Further, Uzbekistan maintains socio-economic stability, and education is identified as a priority area within the domain of social development. No changes are expected in the short run with regards to the political course of the Government in the priority areas outlined in the ESP.

At the same time, the Government acknowledges that there are certain risks which might, directly or indirectly, impact on the results of the programmes and activities to be implemented. A projected risk in implementing the ESP is related to decreased efficiency due to insufficient potential of the specialists charged with the related tasks. The mitigation of the risk will be achieved through possible technical assistance, further specialised training and other support provided by international donors in the area of capacity building for ESP implementation, as well as on the monitoring and evaluation of the implementation process. An important related risk is the potential lack of coordination among the three ministries in charge of the education sector and the State Inspection for Supervision of Quality of Education.

Further risks include uncertainties in actual budget requirements due to large-scale changes in the education sector, in particular with regard to rapid Preschool extension and a significant 400% increase in teacher salaries over a period of 5 years, i.e. the lifespan of the 2nd ESP. Should a certain instability of financing occur in the process of the ESP implementation, the structure of the ESP could be changed since it is very much regarded as a "living document". However, it is expected that due to the regained stability of the national currency, and also due to expected buy-in of donors and involvement of the private sector, it will be possible to pursue the projected strategies without revising the original tasks.

A moderate risk is related to challenges around the administration of the ESP. Such risk will significantly be mitigated by means of joint coordination and monitoring with international donors, as well as via capacity building of officials following the method of results -based management.

Socio-economic results and consequences of ESP implementation shall be made clear not only to the education community, but also to the society as whole. Otherwise, the society may become indifferent or even turn to disapprove or express a negative attitude towards the Education Sector Plan as whole

and to its individual components (areas) in particular. The key factor for reducing such a risk is related to timely sensitisation work and awareness raising, i.e. by informing the population on goals, objectives and implementation processes of the ESP. For that purpose, the communication and dissemination plan was developed (see Section 4.7).

It is obvious that the failure to solve even a single task within the ESP may result in falling short to achieve the overarching goals of the ESP. In order to minimise that risk the implementing ministries will, in a timely, regular and unbiased fashion, make available information on the process of the ESP implementation. At the same time, the absence of such information itself represents a significant risk. The availability of evaluation criteria and adequate indicators, their accessibility and clarity, together with systematic monitoring and documentation of progress, will support a general acceptance of and buy-in to the education sector plan.

Further acceptance and buy-in will also be facilitated by joint donor reviews of the education sector, conducted in collaboration with the Local Education Group (LEG), the Group for Coordination of Donor Support, and partners on the ESP implementation, especially the *National Council on Development of Education* and the *State Inspection for Supervision of Quality in Education* under the Cabinet of Ministers.

Another major risk is related to the consequences of natural disasters (earthquake) might have a negative impact on the implementation of the ESP, however, the decentralisation, namely the availability of 14 regional and about 200 district administrative bodies, along with 70 agencies for training personnel, located outside of the capital city of Uzbekistan reduces such an incalculable risk at least to a certain degree.

5 Action Plan: Operationalising the ESP Strategic Vision

The strategic framework for the ESP is determined by the strategic objectives, Policy priorities or goals (outcomes) and programmes/strategies (outputs) of the respective priority areas. In operationalising the strategic vision, goals of every priority area are broken down by *Programmes*.[117] This involves the theory of change, as discussed in the previous section, further elaborated in terms of activities.

As Uzbekistan's education sub-sectors present unique challenges and plans to address them using the three policy goals and seven strategic areas, the Action Plan is developed and explained separately for each of the sub-sectors.

5.1 Preschool Education

The TOC for Preschool Education, envisages that by 2023, the country achieves all access, quality and governance related goals so that by 2030, the SDG (SDG 4.2) related to preschool education is achieved. Under each of the strategic areas/ priorities, a set of activities are planned to achieve the intermediate outcomes related to preschool education by 2023. For preschool education, all the strategic priorities are significant as an emerging sub-sector in Uzbekistan.

5.1.1 Policy goal 1: Enhance access and participation

Strategic Area 1: Access and participation: In order to enhance access to and participation in preschool education, the following activities are planned: expansion of preschool provision by: (a) construction of new preschools, especially in remote rural areas in lagging regions; (b) increase capacities of existing preschool spaces through reconstruction, renovation and rehabilitation of unused or abandoned spaces; (c) expand the low-cost, half-day service model to more preschools; (d) introduce innovative, flexible, alternative preschool models; and (e) establish partnerships with private sector to increase preschool facilities by providing incentives and subsidies. In addition, it is important to improve the physical conditions of preschools.

To encourage participation, the Government is already taking measures to make one-year preschool education for 5/6 years old (prior to their entrance in primary classes) free and compulsory. The expansion of preschool facilities in rural, remote areas of lagging regions, as well as the renovation and use of abandoned and unused preschool spaces will immediately benefit the existing unmet demand by addressing availability issue. The widespread upgrading and modernization of preschool education facilities in Uzbekistan is expected to have a catalytic effect on the demand for preschool education, leading to an increase in enrollment, particularly for children ages 6-7. The expansion of subsidised preschool spaces as well as that of low-cost half-day models will serve a large number of children whose demand was affected by affordability issues. The piloting and scaling up of innovative, flexible and alternative models will provide preschool education adapted and customised for particular groups' needs. In addition, the government is making efforts to attract private sector into providing preschool education services in a large way.

The government proposes several options for private sector to engage in preschool education provision in Uzbekistan. These options follow the typical PPP models in other sectors such as:

[117] The Action Plan is based on the discussions and working group outcomes of the three-day ESP development workshop conducted from 24-26 July 2018.

- *Build Operate and Transfer (BOT)* is the simple and conventional PPP model with private partner responsible to design, build, operate (during the contracted period) and transfer back the facility to the government. Here, the role of private sector partner is to bring the finance and take the responsibility to construct and maintain the preschool facilities in the country.
- Most PPP models proposed by the MOPSE fall under the *Build-Own-Operate (BOO)* category of PPP with the ownership of the facility being rest with the private player. The government agrees to purchase the services of these preschools on mutually agreed terms and conditions.
- *Build-Own-Operate-Transfer (BOOT):* Some models proposed here has the BOOT characteristics with the proposed preschool assets to be transferred to the government or to the private sector.
- *Build-Operate-Lease-Transfer (BOLT):* In this approach, the government gives a concession to a private entity to build a facility, own the facility, lease the facility to the public sector and then at the end of the lease period transfer the ownership of the facility to the government.
- *Lease-Develop-Operate (LDO):* In this variant, the government retains ownership of the newly created facility and receives payments in terms of a lease agreement with the private player.
- *Rehabilitate-Operate-Transfer (ROT):* Under this approach, the governments allow private players to rehabilitate and operate a facility during a concession period. After the concession period, the project is transferred back to government.
- *Design-Build, Finance and Operate (DBFO):* In this model the private player assumes the entire responsibility for the design, construction, finance and operations of the project for a period of concession. The private party assumes the entire responsibility for the design, construct, finance, and operate or operate and maintain the project for the period of concession.

Strategic Area 2: Safe and enabling learning environments: The activities under this strategic area is designed to make preschool facilities that are child friendly, disability and gender sensitive and that provide safe, non-violent, inclusive and effective as a learning environment. The activities planned in this strategic area include: (a) building or upgrading preschool facilities, especially physical facilities to adhere to child-friendly principles; (b) training preschool teachers on imparting lessons and engaging children in activities related to enhancing their awareness regarding disaster risk management and safe behaviour during emergencies; and (c) training preschool teachers on imparting lessons and engaging children in activities related to prevention of crime and protection against violence and abuse, including gender-based violence in school, home and external environments.

It is important that preschools, especially the ones in remote rural areas, have all the prescribed facilities that are safe and conducive to children. Preschool compounds should be protected by erecting boundary walls, there should be adequate drinking water, functional toilets gender-specified, handwash facilities, playgrounds, kitchen and dining areas and heating facilities. In addition, preschools should be made more barrier-free for children with disabilities and special needs and should create a welcoming environment for all children from diverse backgrounds.

It is also important to engage children early on in addressing disaster risk management and safe behaviours as well as on preventing violences and abuses. As teachers are the best sources of safe behaviour learning for children, preschool teachers will be trained in imparting these lessons to children through structured lessons and activities that are age-approritate in nature.

Chart/ Figure 59: Theory of Change for Preschool Education Sector in Uzbekistan under ESP 2019-2023

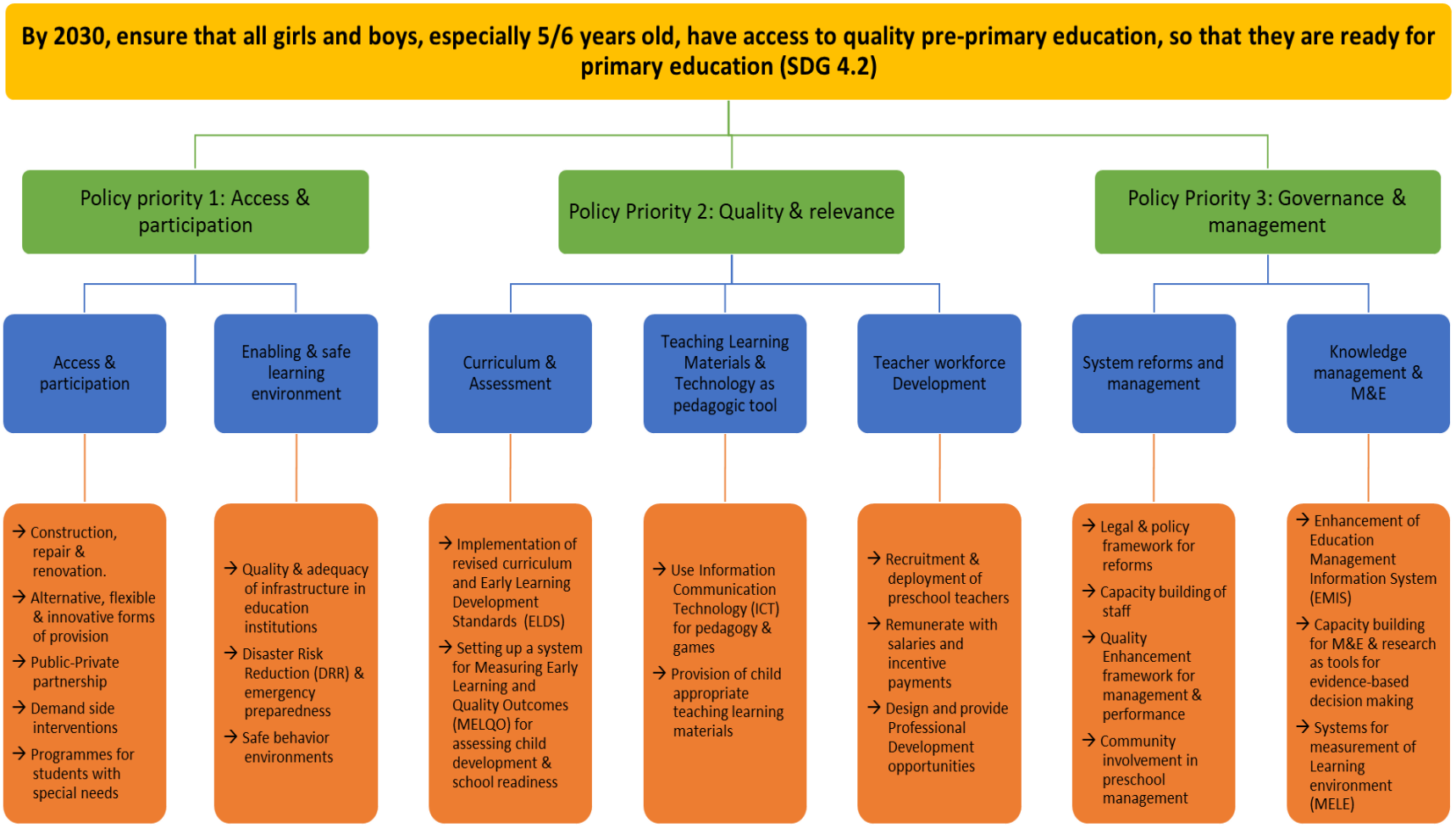


Table 24: Objectives and Activities proposed under the Policy Goal 1: Access and Participation in Preschool Education sector		
Strategic Area	**Objectives**	**Activities**
PS.1. Access & participation	Expand preschool provision and improve physical condition of preschool educational institutions	**PS.1.1.** Map supply and demand for ECE to determine access / expansion related construction needs
	Increase availability by constructing Additional preschools	**PS.1.2.** Construction of new preschools
	Increase capacities of preschool spaces through reconstruction, renovation and rehabilitation of existing unused/ abandoned preschool infrastructure	**PS.1.3.** Renovate /repair /rehabilitate existing preschools **PS.1.4.** Preparing vacant premises/ spaces for expanding access to preschool education
	Expand alternative, innovative, flexible, low cost ECE programmes to enroll more children, especially from disadvantaged groups	**PS.1.5.** Expand the half-day model Early Childhood Education (ECE) in more preschools in regions **PS.1.6.** Develop/Introduce alternative, flexible ECE models in more preschools, including those for children with special needs & disabilities
	Establish/Strengthen & implement strategies to engage private sector in preschool expansion/ construction/ maintenance	**PS.1.7.**Develop a network of non-governmental preschools and institutions through Public-Private Partnerships
	Strengthen regulatory framework to support inclusive education in preschools	**PS.1.8.** Develop and implement a special education policy and measures to ensure inclusive education for children with disabilities and special needs
PS.2. Safe and enabling learning environments in education institutions	Strengthening preschool facilities that are child-friendly, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	**PS. 2.1.**Build and upgrade preschool facilities, especially physical facilities, that adhere to child-friendly principles
	Develop strategies for safe behavior and disaster risk reduction in preschools	**PS 2.2.** Training preschool teachers on including lessons/ activities related to disaster risk management & safe behavior
	Develop and implement strategies in preschools to mitigate crime, violence and abuse, especially bullying	**PS. 2.3.** Training preschool teachers on including lessons/ activities related to prevention and protection against violence and abuse

5.1.2 Policy Goal 2: Quality and Relevance

Strategic Area 3: Curriculum and Assessment: As of now, the Ministry of Preschool Education has revised the Early Learning Development Standareds (ELDS) and developed a new curriculum for preschool education. While the curriculum is now finalized, the supporting materails needs to be developed like teacher guidebooks and it is important to review these materials and the content therein for its gender and social sensitivity as well as age-appropriateness for young children. Besides, the teachers in preschools may not be familiar with the ways in which the ELDS and curriculum needs to be translated into preschool lessons and activities. Training preschool teachers in implementing ELDS and curriculum gains importance in this context.

Another important area where the MOPE and SISEQ needs to work during the second ESP period is related to establishing a system for measuring child development milestones as well as quality of preschool services provided. In this regard, the Measuring Early Learning Quality and Outcomes (MELQO), led and developed jointly by UNESCO, the World Bank, the Center for Universal Education at the Brookings Institution and UNICEF since 2014, aims to promote feasible, accurate and useful measurement of children's development and learning at the start of primary school, and of the quality of their pre-primary learning environments. Items are designed for children between the ages of 4 and 6 years. The proposed World Bank (International Development Agency- funded) project (co-financed by GPE Multiplier Funds worth $ 10 million) envisages to adapt MELQO as the system for measuring child development and system quality and outcome assessments in Uzbekistan.

The MELQO consists of two components: Measuring Child Development and Early Learning (MODEL) and Measuring Quality of Early Learning Environments (MELE). While the former focuses on the development of children, the latter focueses on preschool institutions and services. During the second ESP period, these two components will be adapted and further developed for Uzbekistan context.

Strategic Area 4: Teaching Learning Materials and Technology in education: Activities under this strategic area includes mainly two things: (a) Provision of child-friendly materails (including furnitures) and teaching-learning materials; and (b) wider use of Information and Communication Technology (ICT) as a powerful pedagogic tool as well as tool and management.

The provision *of modern child-friendly and age-appropriate equipment and furniture, as well as teaching and learning materials,* under the proposed World bank project is expected to benefit approximately 9,680 preschool groups - 7,170 classrooms for full-day groups, and 2,510 classrooms for half-day groups. This will amount to equipping at least one classroom in each of Uzbekistan's 4,940 existing public preschools.

Strategic Area 5: Teacher/ staff Work Force Development: This strategic area consists of the following activities: (a) appointment and redeployment of teachers to have a desirable Pupil Teacher Ratio in preschools; (b) improving the service conditions for preschool teachers and staff, including systematic increase in their salaries and allowances/incentives; (c) efforts to improve the qualification of teachers; (d) providing academic support to improve engagement with children through instruction and play activities; (e) providing protection and supporting their legal standing from exploitation of any nature, including requirements to work outside their job; and (f) carry out advocacy activities to raise the image and prestigage of teaching profession.

All the activities proposed under this strategic area is in accordance with the decree of the Government dated 5 September 2018 for improving the quality of education sector.

Table 25: Objectives and Activities proposed under the Policy Goal 2: Enhancing Quality and Relevance of Preschool Education sector		
Strategic Area	**Objectives**	**Activities**
PS. 3. Curriculum and Assessment	Provide preschool children with an enhanced curriculum based on Early Learning Development Standards (ELDS)	**PS.3.1.** Carry out a review/auditing of the materials developed to support new curriculum & ELDS for gender & social sensitivity **PS.3.2.** Train preschool teachers in implementing ELDS / curriculum
	Enhance the assessment of child development milestones of preschool children according to the new curriculum/ ELDS at preschool level Enhance the system level assessment of preschool education quality and outcomes through Measuring Child Development and Early Learning (MODEL)	**PS.3.3**. Establish a system at MOPSE to introduce Measuring Early Learning Quality and Outcomes (MELQO) and its components, namely: (a) Measuring Child Development and Early Learning (MODEL); (b) Measuring the quality of Early Learning Environments (MELE)
PS. 4.Teaching Learning Materials, including Technology as a pedagogic tool	Promotion of innovative teaching learning methodology and materials for enhancing preschool children's experience	**PS.4.1.** Provision of child-friendly teaching-learning / play materials and environment
	Introducing wider use of ICT for enhanced teaching-learning activities and pre-school management	**PS.4.2.** Equip Preschools with ICT facilities **PS.4.3.** Train teachers in the extensive use of ICT for teaching and engaging children **PS.4.4.** Train Preschool management & staff for wider use ICT for preschool management
PS.5. Teacher/ Staff workforce Development	Increase the number of preschool teachers to match the expansion of preschool enrolments without affecting the favorable PTR	**PS.5.1.** Appointment of new teachers **PS.5.2.** Redeployment of existing teachers
	Improve the service conditions of teachers	**PS.3.3.** Systematic increase in preschool teacher salaries **PS.5.4.** Develop a comprehensive incentive system for teachers
	Raise the level of teacher qualifications and skills	**PS.5.5.** New recruitment of teachers attracts candidates with higher qualifications **PS.5.6.** Training of preschool teachers (areas other than curriculum/ ELDS)
	Support preschool teachers to improve preschool activities	**PS.5.7.** Design a supportive supervision mechanism for supporting preschool teachers' activities with children
	Improve the legal standing and protection of preschool teachers	**PS.5.8.** Legally prohibit use of preschool teachers for any function other than related to preschool education
	Improve the image and status of teachers in society	**PS.5.9.** Prepare and roll out advocacy activities

5.1.3 Policy goal 3: Governance and management

Strategic Area 6: Systemic reforms, governance and management: At present, the preschool education sector is in a state of flux with a lot of initiatives aimed at systemic reforms developed periodically. As the sector is now managed by a relatively new Ministry, there are areas for capacity development. As preschool is part of Early Child Development (ECD), there are activities connected to Early Childhood Education (ECE) being carried out by various other Ministries and convergence and coordination with other Ministries is of utmost importance for the Ministry of Preschool Education (MOPSE). The demand for and management of preschools on a regular basis also depends a lot on the parents and community around the preschools. Hence, engaging them effectively is one of the important activities for the preschool education sector.

Under this Strategic Area, the following activities will be undertaken: (a) harmonizing all policy initiatives by the MOPSE and other Ministries; (b) capacity building of staff at the national, regional and district level Ministries/Departments working on preschool education, as well as capacity building for managing preschool institutions; (c) establishing arrangements for enhancing collaboration and convergence with various other Ministries (Ministry of Health, Ministry of Justice etc.) at the national level as well as between frontline providers (preschools, public health centres, general secondary schools etc.); and (d) promoting parental /community engagement in preschool management.

Strategic Area 7: Monitoring and Knowledge Management: In order to improve preschool education management, it is important to have evidence-based decision-making. As of now, MOPSE has established an Education Management System (EMIS), adapting the open source "Open-EMIS". However, as of now the system is at a rudimentary stage. Though a set of data collection tools as well as guidelines and manuals for collecting data both using paper forms and online portal is still being piloted. During the second ESP implementation state, EMIS will be finalized and scaled up to cover all preschools in the country.

As of now, the EMIS includes School Information System, but moving forward, in the coming years, the EMIS will be expanded to include: (a) student information system; (b) instructional or curriculum management systems; (c) Human Resource Information Systems; (d) Financial Management Information System and payrolls; (e) School Inspection System; (f) preschool education quality tracking system; (g) student and teacher/staff attendance monitoring system; and finally (h) preschool inventories/asset management system. It is not only enough to expand the preschool EMIS, but also linking it to information systems of the Ministries of Health, social benefits and other sub-sectors of education to have an integrated EMIS.

Moving forward, building capacity among staff working on EMIS and Statistics at various levels – national, regional, district level and school levels – is important for not only managing data collection and compilation, but also for analyzing the same. Producing comprehensive preschool statistics is an important dimension of capacity building for EMIS.

An important set of activities that the MOPSE will be promoting during the second ESP is related to studies and research aimed at generating adequate evidence for informing future directions of preschool education. The Ministry will collaborate with research agencies within the country as well as with international development partners, especially UN agencies, to do carry out relevant studies.

Table 26: Objectives and Activities proposed under the Policy Goal 3: Systemic Reforms and Management of Preschool Education sector		
Strategic Area	**Objectives**	**Activities**
PS.6. Systemic reforms and Management	Consolidate all systemic reforms	**PS.6.1.** Harmonize all legal and policy documents
	Capacity building of Preschool Education Ministry / Departments at all levels	**PS.6.2.** Training of staff at the MOPSE for management of preschool areas /programmes in their respective areas / sections **PS.6.3.** Training of Regional and district staff in various aspects of preschool management **PS.6.4**. Training of preschool managers in the management of preschools
	Establish / Enhance collaboration / coordination/ convergence mechanisms between preschools and other services (health, justice etc.)	**PS.6.5.** Collaboration of preschools and neighboring general secondary schools to share / feed information on the child development **PS.6.6.** Development of a Coordination strategy for MOPSE to work with other Ministries (Ministry of Health, Ministry of Justice, etc.)
	Promote participation of parents/ community in ECE management	**PS.6.7.** Design and initiate outreach / awareness /advocacy campaigns to on the benefits of ECE **PS.6.8.** Design advocacy campaigns for promoting parental involvement in preschool management
PS.7. Monitoring and Knowledge Management	Strengthening preschool Education Management System (EMIS) and harmonizing with other education subsector EMISs to have an integrated EMIS	**PS.7.1.** Establishing a legal framework for a comprehensive EMIS **PS.7.2.** Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS **PS.7.3.** EMIS data collection tools and guidelines developed and finalized
	Capacity building of staff at various levels for collecting/ compiling preschool information on various indicators	**PS.7.4.** Training of staff at various levels for collecting and entering data onto paper based tools and web-portal
	Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**PS.7.5.** Training of staff at various levels for analyzing and reporting EMIS statistics
	Strengthening the dissemination and use of EMIS analysis	**PS.7.6.** Produce Preschool EMIS analytical reports and publish it for larger audience
	Strengthening research & evaluation of preschool education sector	**PS.7.7**. Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of preschool education

5.2 General Secondary Education

A detailed General Secondary Education TOC is presented in the chart below. General Secondary Education (including primary education), free and compulsory as per the Law on Education (1997). As such, all children in the age group of 7-17 years are "enrolled" in a general secondary school. However, as the education sector analysis shows, there are still some gaps in net enrollment rates, indicating children still out of school. As such, all strategic areas under the three policy goals are relevant for General Secondary Education (GSE) as well.

5.2.1 Policy goal 1: Maintain access and participation

Strategic Area 1: Enhance School facilities: With the shift in general secondary education system from 9 years to 11 years, there is a need to expand the facilities in general secondary schools to ease the pressure of "crowding in" of additional students. Besides, most schools suffer due to multiple shifts. Under this strategic area, the following activities will be undertaken: (a) mapping of schools for their infrastructure conditions and requirements for new building, reconstruction and renovations; (b) carry out renovations and repairs of school infrastructure, including rehabilitating unused and empty spaces; (c) identifying children who is currently not attending schools regularly despite being "enrolled" in schools and developing strategies to ensure their regular attendance; (d) develop and adopte inclusive education policies, including adoption of social model for identifying children with disabilities; and (e) adapting school infrastructure and facilities to ensure an inclusive learning environment.

Strategic Area 2: *Safe and enabling learning environments*: Taking cognizance of the issues related to school safety and school-based violence, this strategic area will have activities that is aimed at making general secondary school facilities more student-friendly, disability and gender sensitive and that provide safe, non-violent, inclusive and effective as a learning environment. The activities planned in this strategic area include: (a) building or upgrading general secondary school facilities, especially physical facilities, to adhere to "safe school" principles; (b) training teachers on imparting lessons and engaging students in activities related to enhancing their awareness regarding disaster risk management and safe behaviour during emergencies; and (c) training teachers on imparting lessons and engaging children and adolescents in activities related to prevention of crime and protection against violence and abuse, including gender-based violence in school, home and external environments.

In order to make general secondary schools safe and conducive for learning, the schools should meet all safety standards as prescribed by the state standards for school buildings. School compounds should have boundary walls, should have adequate drinking water, functional toilets gender-specified, handwash facilities, playgrounds, kitchen and dining areas and heating facilities. General secondary schools should also be made more disable-friendly and inclusive by ensuring access that is barrier-free. Disaster risk reduction (DRR) and Safe Behaviour (SB) materials for grades 1-11, developed by MOPE with support from UNICEF were piloted in a few schools during 2017-18 and this will be now scaled up, by training teachers in incorporating these lessons with regular subject classes.

An important issue that needs to be addressed on a priority basis in the country is related to school based violence and harassments. With several cases of bullying being reported from schools, the MOPE will initiate several activities to prevent these in schools. Teachers will be trained in imparting lessons on preventing violence and abuse in schools. Advocacy campaigns to generate further awareness on the issues of school violence will be developed and implemented under the second ESP.

General Secondary Education

Chart/ Figure 60: Theory of Change for General Secondary Education Sector in Uzbekistan under ESP 2019-2023

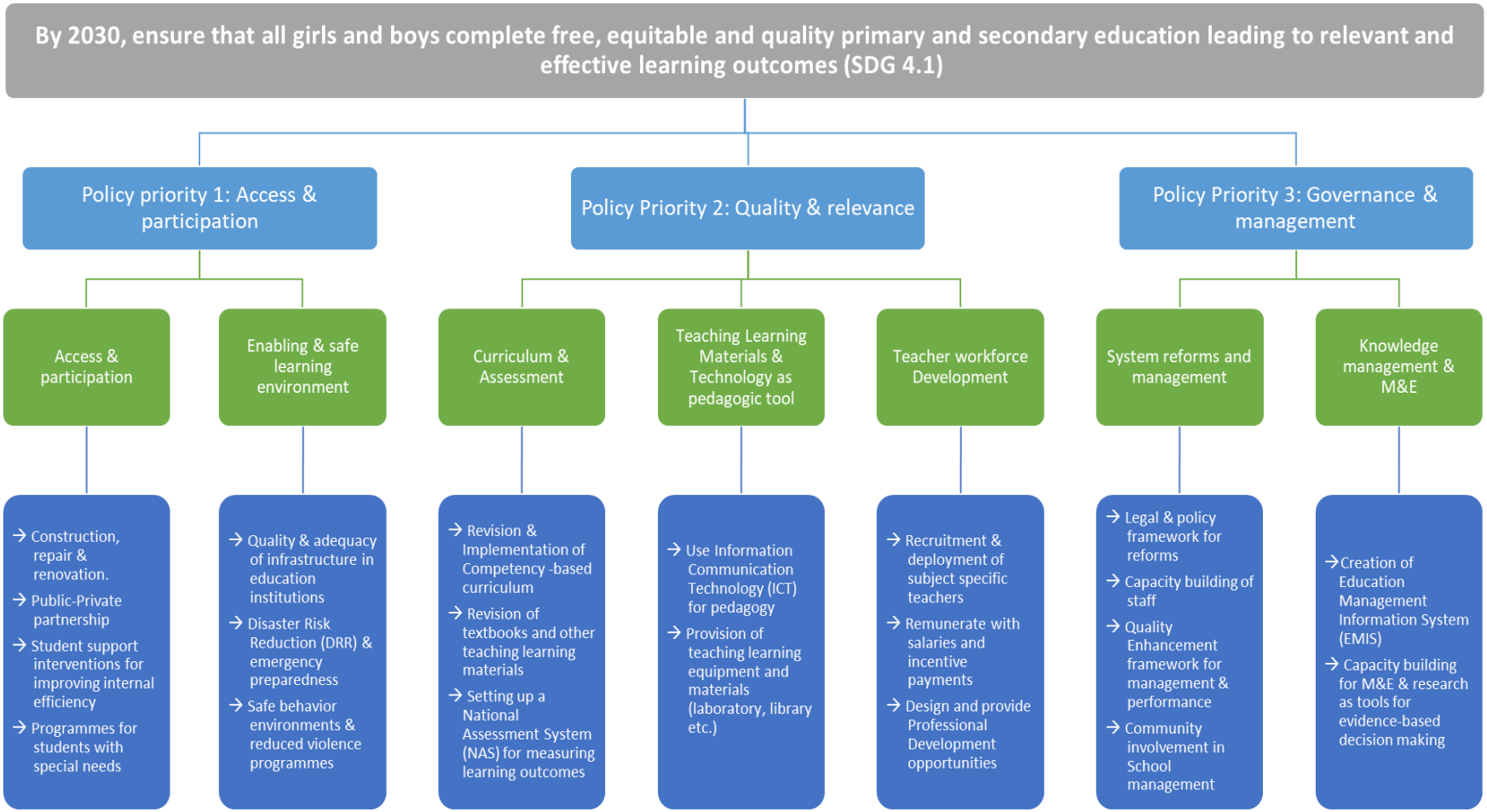


Table 27: Objectives and Activities proposed under the Policy Goal 1: Maintain Access and Participation in General Secondary Education sector		
Strategic Area	**Objectives**	**Activities**
GS. 1. Access & participation	Improve the infrastructure and physical conditions of general secondary schools	**GS.1.1.** Mapping of schools that require reconstruction/ repair **GS.1.2.** Renovate/repair/rehabilitate GS schools
	Identify "Out-of-school" /non-attending children and improve their attendance of schools	**GS.1.3.** Conduct a mapping/study to identify the number of out-of-school children and the reasons **GS.1.4.** Develop strategies for bringing children non-attending to school
	Ensure Inclusive Education for disabled and children with special needs (CWSN) is implemented	**GS.1.5.** Develop and adopt policies for implementing Inclusive Education **GS.1.6.** Renovating Schools to make it conducive for inclusive education **GS.1.7**. Using social model for identifying children with disability
GS.2. Safe and enabling learning environments in education institutions	Strengthening the GS school facilities that are child-friendly, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	**GS.2.1.** Build and upgrade GS School facilities, especially physical facilities, that adhere to child-friendly principles
	Develop strategies for safe behavior and disaster risk reduction (DRR) & Safe Behavior (SB) in Schools	**GS.2.2.** Equip physical environment of GS schools for DRR & EP **GS.2.3.** Training GS school teachers on using DRR -SB curriculum specific materials and activities in classrooms
	Develop and implement strategies in GS Schools to mitigate crime, violence and abuse, especially bullying	**GS.2.4.** Training School teachers on including lessons/ activities related to prevention and protection against violence and abuse **GS.2.5.** Initiating advocacy campaigns on the prevention of school based violence.

5.2.2 Policy Goal 2: Quality and Relevance

Strategic Area 3: Curriculum and Assessment: This strategic area includes mainly the following activities related to: (a) enhancing curriculum of general secondary education using competency-based learning approach, moving away from the content driven approach prevailing now, and includes developing a new National Curriculum Framework (NCF) based on competency based approach, developing grade and subject specific curriculum based on the NCF, review of the new curriculum for gender and social sensitivity, endorsement of the NCF and detailed curriculum, and revision of textbooks and other accompanying teaching-learning materials and guidebooks. Related subsequent activities include producing those textbooks and materials in adequate numbers following the internationally accepted production processes for textbook production and distribution of the newly produced textbooks to the schools /students.

It is not enough to just revise curriculum and textbooks, but also train teachers in using the comptency-based approach that is envisaged in the curriculum and using the textbooks accordingly. An important activity in this regard is to do an anlysis of instructional time use in classrooms and its effectiveness to understand whether curriculum can be appropriately translated in classroom activities within the allocated time.

One of the most important activity under this strategic area is related to assessments. The country needs to prepare activities for three specific types of assessments: (a) reviewing and revising classroom assessment systems in line with the competency-based approach – including the use of summative and formative assessments and in a continuous and comprehensive framework; (b) prepare for enhancing or establishing a National Learning Assessment System (NAS) in the country and carrying out system level sample surveys on learning using internationally accepted testing techniques; and (c) prepare for participating in international learning assessments like Programme for International Students Assessment (PISA) and Trends in Mathematics and Science Study (TIMSS). In doing each one of these, capacity building of staff in specialized areas is extremely important.

For classroom assessments, teachers and school managers will be trained in adapting the assessment mechanisms. Classroom assessments are meant for student level evaluation, providing feedback and designing child-level approapriate teaching-learning and remedial measures. For NAS, capacity building in specific areas are important, such as: (a) item writing for large scale assessments; (b) linguistic quality assurance in large scale assessments; (c) managing field operations; (d) sampling and sample selections; (e) data management; (f) data analysis and interpretations and (g) results management for evidence based policy making and programming. International assessments require long term planning and working with the agencies that conduct the studies.

Strategic Area 4: Teaching Learning materials (TLMs) and Technology, including wider use of ICT as a pedagogic tool: With the changes in curriculum and new approaches to teaching and learning, an important strategic area is related to tools and materials for enabling instruction and learning. This strategic area also assumes imporatnce for general secondary education in the context of recent structural changes in education sector in the country. With the extension of general secondary education form 9 years to 11 years means that there are more students in the system and in the schools. These additional students or those who continue in the system will be provided with more specialized education at senior secondary students. For the new higher grades, more advanced reference books in libraries are important. These grades also would require more specialized laboratories and lab equipment and materials. The role of Information and Communication Technology (ICT) in pedagogy cannot be ignored for education at all levels, but more so for children in higher grades.

This strategic area include mainly the following activities: (i) equipping all general secondary schools with all necessary laboratories, lab materials and libraries; (ii) provision of all teaching-learning materials such as textbooks, note books and other required stationaries; and (iii) introducing extensive use of ICT as a pedagogic tool, requiring the GS schools to be equipped with IT equipments, ensuring availability of electricity and internect connections and required hardware and software, prepared specifically for enabling ICT based instruction in schools. ICT-enabled instruction /pedagogic approach also requires teachers to be trained in the wider use of ICT.

Strategic Area 5: Teacher Workforce Development: The quality of an education system cannot exceed the quality of its teachers.[118] The country has one of the lowest Pupil: Teacher Ratios (PTRs) for general secondary education. At the same time, several vacant positions have been reported for specific subjects. With the extension of general secondary education by two more years, more teachers, that too more qualified teachers, are needed in the system. The activities planned under this strategic area include the following: (a) recruitment of new teachers and redeployment of existing teachers; (b) improving the service conditions of teachers by systematic increase in teacher salaries and developing comprehensive incentive systems; (c) raising the level of qualifications and skills of teachers through reforming both preservice and in-service teacher training processes; (d) institutionalizing mechanisms to ensure supportive academic supervision and support to teachers in classroom academic planning and improving instructional time and quality; (e) improving the legal standing of teachers and protecting them by legally prohibiting the use of teachers in non-academic activities; and (f) developing advocacy mechanims to improve the image and status of teachers in soceity.

Recuritment of new teachers and redeployment of existing teachers is an important action in this regard. Raising the qualification of teachers is possible also through encouraging teachers with less qualifications to get back to education to aquire more qualifications. In order to make this system more organic, MOPE is in the process of developing a National Teacher Qualifications Framework.

Improving the service conditions of the teachers also mean systematic increase in teacher salaries and developing comprehensive incentive and benefit systems for teachers, which the government is committed to. The government has already taken decision to increase teacher salaries initially by 10% to commensurate with the qualifications and experience.

For those in the system, to enhance the quality of their teaching skills, both in terms of pedagogic skills and subject mastery, it is important to continue in-service training, but a more advanced and relevant in-service training package needs to be developed. To ensure that teachers are supported adequately in their academic duties, MOPE and REC is already in the process of developing a Supportive Supervision mechanism. Activities for improving the legal standing of teachers by prohibiting forced labor in non-teaching sectors is already taken; however, measures are needed to ensure that these are continued.

[118] McKinsey Report 2008.

Table 28: Objectives and Activities proposed under the Policy Goal 2: Enhancing Quality and Relevance of General Secondary Education sector		
Strategic Area	**Objectives**	**Activities**
GS.3. Curriculum and Assessment	Enhance the curriculum based on competency based learning approach and make it more relevant for students	**GS.3.1.** Develop and endorse a National Curriculum Framework (NCF) reflecting competency-based learning approach **GS.3.2.** Revise curriculum to reflect competency-based learning approach **GS.3.3.** Carry out a review/auditing of the new competency based curriculum for ensuring gender & social sensitivity **GS.3.4.** Revise textbooks for reflecting the new competency based curriculum **GS.3.5.** Production and distribution of revised textbooks to all schools in adequate numbers
	Enhance the implementation of new curriculum	**GS.3.6.** Training of teachers in new competency based curriculum
	Enhance the instructional time-on-task and its effectiveness	**GS.3.7.** Conduct studies to understand the instructional time-on-task and nature of tasks of teachers and students in schools, separately for primary and secondary
	Enhance Learning Assessment Systems at various levels	**GS.3.8.** Review and revise the methods of classroom assessments to reflect continuous & comprehensive evaluation (CCE), formative & summative evaluation (FSE) of student learning on the lines of competency-based approach in classrooms
	Conduct regular sample-based National Assessment Surveys to assess the learning outcomes at system level	**GS.3.9.** Establish a National Assessment System (NAS) to design and conduct sample-based National Assessment Surveys using the modern assessment methodologies (using IRTs) **GS.3.10.** Capacity building for NAS **GS.3.11.** Conduct NAS every year for separate grades **GS.3.12.** Analyze NAS data and prepare results **GS.3.13.** Disseminate NAS reports to wider audience
GS.4. Teaching Learning Materials, including Technology as a pedagogic tool	Equipping schools, teachers and students with all necessary teaching-learning equipment & materials	**GS.4.1.** Provide and equip GS schools with Teaching Learning Equipment (TLE), including Laboratories, and lab materials
	Equipping schools, teachers and students with all necessary teaching learning materials	**GS.4.2.** Produce and distribute all necessary teaching learning materials (TLM) and other pedagogic materials to schools
	Introducing wider use of ICT as a pedagogic tool for enhanced teaching-learning activities and GSE school management	**GS.4.3.** Provide all GS Schools all necessary infrastructure and materials to ensure Information-Communication Technology (ICT) enabled and Computer Aided Learning (CAL) programmes can be conducted

		GS.4.4. Train the GS school teachers & staff in Computer-Aided Learning (CAL) and the wider use of ICT for teaching-learning activities **GS.4.5.** Train the GSE school management & staff to use ICT extensively for school management
GS.5. Teacher/ Staff workforce Development	Recruitment of new teachers and Redeployment of existing teachers to maintain desirable Pupil Teacher Ratio	**GS.5.1.** Appointment of new teachers & redeployment of existing teachers
	Improve the service conditions of teachers	**GS.5.2.** Systematic increase in teacher salaries **GS.5.3.** Develop a comprehensive incentive system for teachers
	Raise the level of teacher qualifications and skills	**GS.5.4.** New recruitment of teachers attracts candidates with higher qualifications **GS.5.5.** Develop a comprehensive in-service teacher training programme and ensure teachers are provided training in a regular manner
	Support teachers to improve classroom instructional time and activities in an effective manner	**GS.5.6.** Design an academic supervision mechanism for supporting teachers in instructional innovations and effectiveness
	Improve the legal standing and protection of teachers	**GS.5.7.** Legally prohibit use of teachers for any function other than related to School education/activities
	Improve the image and status of teachers in society	**GS.5.8**. Prepare and roll out advocacy activities

5.2.3 Policy goal 3: Governance and management

Strategic Area 6: Systemic reforms, governance and management: As in the case of preschool education, the general education sector is also witnessing large scale reforms. Under this Strategic Area, the following activities will be undertaken to improve general secondary education: (a) harmonizing all policy initiatives by the MOPE and other Ministries; (b) capacity building of staff at the national, regional and district level Ministries/Departments working on general secondary education, as well as capacity building for managing general secondary schools; (c) establishing arrangements for enhancing collaboration and convergence with various other Ministries (MOPSE, Ministry of Health, Ministry of Justice etc.) at the national level as well as between frontline providers (preschools, public health centres, general secondary schools etc.); and (d) promoting parental /community engagement in school based management (SBM).

Strategic Area 7: Monitoring and Knowledge Management: In order to improve general secondary school education management, it is important to have evidence-based decision-making. As of now, MOPE does not have a web-enabled Education Management System (EMIS). During the second ESP implementation stage, a robust EMIS will be developed for managing information in general secondary education system at MOPE. The comprehensive EMIS for MOPE should cover the following: (a) School Information System; (b) Student Information System; (c) instructional or curriculum management

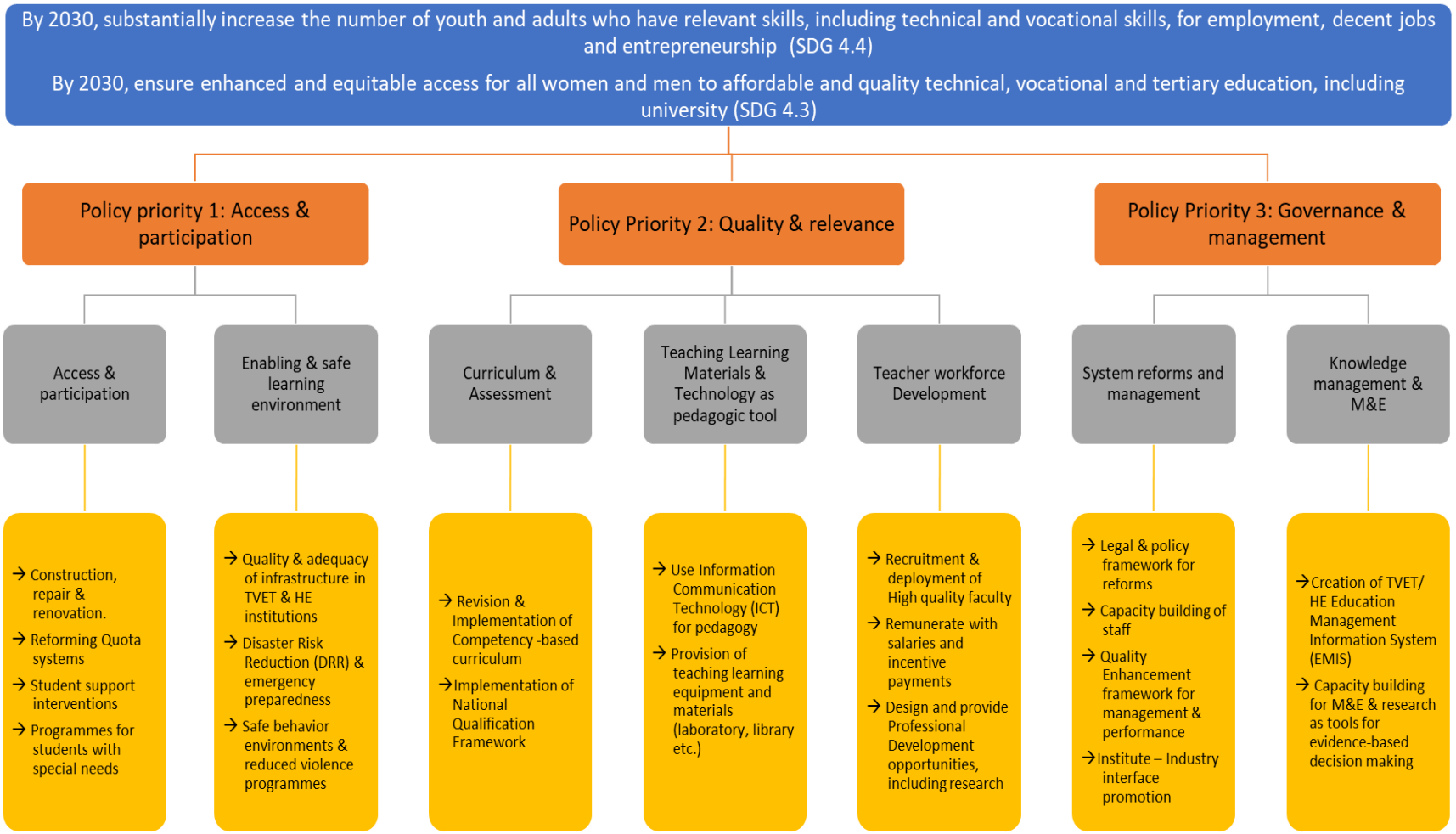
systems; (d) Human Resource Information Systems; (e) Financial Management Information System and payrolls; (f) School Inspection System; (g) General Secondary school education quality tracking system; (h) student and teacher/staff attendance monitoring system; and finally (i) General Secondary school inventories/asset management system. It is not only enough to develop an EMIS for General Secondary Education system, but also linking it to information systems of the Ministries of Health, social benefits and other sub-sectors of education to have an integrated EMIS.

Moving forward, building capacity among staff working on EMIS and Statistics at various levels – national, regional, district level and school levels – is important for not only managing data collection and compilation, but also for analyzing the same. Producing comprehensive school statistics is an important dimension of capacity building for EMIS.

An important set of activities that the MOPE will be promoting during the second ESP is related to studies and research aimed at generating adequate evidence for informing future directions of general seconday school education. The Ministry will collaborate with research agencies within the country as well as with international development partners, especially UN agencies, to do carry out relevant studies.

Table 29: Objectives and Activities proposed under the Policy Goal 3: Systemic Reforms and Management of General Secondary Education sector		
Strategic Area	**Objectives**	**Activities**
GS.6. Systemic reforms and Management	Consolidate all systemic reforms	**GS.6.1.** Harmonize all legal and policy documents
	Capacity building of staff at MOPE / Departments at all levels	**GS.6.2.** Training of staff at the MOPE for management of GSE areas /programmes in their respective areas / sections **GS.6.3.** Training of Regional and district staff in various aspects of GSE management **GS.6.4.** Training of GS School managers in the management of GSE
	Establish / Enhance collaboration / coordination/ convergence mechanisms between GSE and other services (health, justice etc.)	**GS.6.5.** Collaboration of GS schools with preschools to get /share information on preschool education and child development of new enrollment **GS.6.6.** Development of a Coordination strategy for MOPE to work with other Ministries (Ministry of Health, Ministry of Justice, etc.)
	Promote participation of parents/ community in ECE management	**GS.6.7.** Design and initiate outreach / awareness /advocacy campaigns to for promoting parental involvement in school management
GS.7. Monitoring and Knowledge Management	Establishing and Strengthening GS Education Management System (EMIS) and harmonizing with other education subsector EMISs to have an integrated EMIS	**GS.7.1.** Establishing a legal framework for a comprehensive EMIS **GS.7.2.** Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS **GS.7.3.** EMIS data collection tools and guidelines developed and finalized **GS.7.4.** Create a web-based GS EMIS with all up-to-date technology specifications **GS.7.5.** Equip GS Schools with the new EMIS system
	Capacity building of staff at various levels for collecting/ compiling GSE information on various indicators	**GS.7.6.** Training of staff at various levels for collecting and entering data onto paper based tools and web-portal
	Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**GS.7.7.** Training of staff at various levels for analyzing and reporting EMIS statistics
	Strengthening the dissemination and use of EMIS analysis	**GS.7.8.** Produce GS EMIS analytical reports and publish it for larger audience
	Strengthening research & evaluation of GS education sector	**GS.7.9.** Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of GSE

Chart/ Figure 61: Theory of Change for PE/TVET/ HE Sector in Uzbekistan under ESP 2019-2023



5.3 Professional Education/Technical and Vocational Education and Training (TVET)

The activities for TVET and Higher Education sectors are summarized in the tables below.

5.3.1 Policy goal 1: Enhance access and participation

Strategic Area 1: Access and participation: Under the strategic area of access and participation, the main activities are related to expanding the spaces /seats in currently available courses and trades, introducing new courses and also introducing alternative modes of providing the courses. In addition, expanding the TVET infrastructure and facilities is also an important activity. In higher education, more student support activities will be designed to facilitate increased participation of students.

Strategic Area 2: Safe and enabling learning environments: Apart from upgrading the institutional infrastructure and facilities and complying them to the state prescribed standards in terms of safety and quality, mechanisms will be put in place in post-secondary level institutions to address any complains regarding crime, violence and any form of harassment (discriminatory behavior and sexual harassment) in campus.

5.3.2 Policy Goal 2: Quality and Relevance

Strategic Area 3: Curriculum and Assessment: Under this strategic area, for professional and vocational education, a National Qualification Framework (NQF) will be developed and finalized. On the basis of the NQF, National Occupational Classifications (NOC) will be revised and National Occupational Standards (NOS) will be developed. The PE/TVET curricula will be revised based on the NQF, NOC and NOS. Assessment methods and certification procedures will also be reviewed to keep up with the revisions in curriculum. In addition, the practical content or institutional-industry interface will be given more weightage in the curriculum and in final assessments.

Strategic Area 4: Teaching Learning Materials and use of Technology, introducing extensive use of ICT as a pedagogic tool: The TVET and higher education institutions will be upgraded in terms of workshops, laboratories, lab materials, libraries and ICT provisions and use for various purposes. There will be an assessment of requirements in these institutions. Using ICT not only as a skill, but also using ICT extensively to support pedagogy is even more relevant in post-secondary education. Massive Online Open Courses and virtual classrooms can be enabled in universities through the wider use of ICT. Efforts will be made in this direction to enhance education provision and quality in TVET and higher education institutions.

Strategic Area 5: Faculity and professional development: Under this strategic area, the activities include: (a) enhance the working environment for faculties and staff; (b) attract highly qualified personnel for the institutions, both in terms of academic faculty and institutional managers; (c) devise and implement faculty improvement programmes; (d) develop plans to enhance the research and international engagement of faculties and institutions.

5.3.3 Policy goal 3: Governance and management

Strategic Area 6: Systemic reforms and Management: Given the ongoing reforms, capacity building of staff in PE/TVET institutions and the Ministries is an important activity under this strategic area.

Strategic Area 7: Knowledge Management and M&E: As in the case of other sub-sectors, an important activity under this strategic area is to develop comprehensive Education Management Information Systems for TVET /PE. The comprehensive EMIS for PE/TVET should cover the following: (a) Institutional Information System; (b) Student Information System; (c) Course and curriculum management systems; (d) Human Resource Information Systems; (e) Financial Management Information System and payrolls; (f) Institutional Quality Assurance System; and finally (g) institutional inventories/asset management system. In addition, a system for conducting relevant research and collaboration with international institutions for the same will be promoted.

Table 30: Objectives and Activities proposed under the Policy Goal 1: Expand Access and Participation in Professional Education/Technical & Vocational Education and Training (TVET) sector

Strategic Area	**Objectives**	**Activities**
PE.1. Access & participation	Expand the trades and courses offered at HE	**PE.1.1.** Introduce new TVET trades and courses in HE institutions **PE.1.2**. Introduce HE courses in alternative, flexible mode (evening classes, flexible time-frame for completion etc.)
	Reconstruct/ repair/ rehabilitate HE infrastructure	**PE.1.3.** Renovate/repair/rehabilitate HE infrastructure
PE.2. Safe and enabling learning environments in education institutions	Strengthening PE/ TVET institutional facilities to ensure physical safety of the places	**PE.2.1.** Construct/ repair PE/ TVET facilities to ensure physical standards are met
	Strengthen Disaster Risk Reduction and Emergency preparedness of PE/ TVET institutions	**PE.2.2.** Equip physical environment of PE/ TVET institutions for DRR & EP
	Strengthening institutional policies and practices to ensure safe behaviour in PE/ TVET institutions	**PE.2.3.** Review and revise PE/ TVET institutional policies and redressal mechanisms related to abuse (including sexual/gender harassment), crime and violence among PE/ TVET trainees

Table 31: Objectives and Activities proposed under the Policy Goal 2: Enhancing Quality and Relevance of Professional Education/Technical & Vocational Education and Training (TVET) sector		
Strategic Area	**Objectives**	**Activities**
PE.3. Curriculum and Assessment	Development of a National Qualification Framework, revision of National Occupational Classifications (NOC) and development of National Occupational Standards (NOS)	**PE.3.1.** Develop and endorse a National Qualification Framework (NQF) for PE/ TVET **PE.3.2.** Improve the National Occupational Classification based on NQF for PE/ TVET **PE.3.3.** Develop occupational standards profession wise based on National Occupational Classifications
	Enhance the PE/ TVET curriculum based National Qualification Framework	**PE.3.4.** Analysis of: (i) PE/ TVET skill gaps & needs; (ii) training provision; (iii) scenario planning; and (iv) development of sectoral programmes and interventions by Sector Skills Councils **PE.3.5.** Develop/ revise PE/ TVET curricula based on National Occupational Standards
	Enhance the PE/ TVET assessment and certification mechanisms	**PE.3.6.** Develop new/revise assessment and certification mechanism for PE/ TVET programmes
	Enhance the on-site training component of PE/ TVET programmes	**PE3.7.** Review practical content of PE/ TVET programmes and enhance the practical content based on NQF, NOC and NOS
	Carry out a study on the adaptation of the PE curriculum and labour market requirements	**PE.3.8.** Commission a study on the adaptation of Secondary Specialized Education curriculum and labour market requirements
PE.4. Teaching Learning Materials, including Technology as a pedagogic tool	Enhance /Upgrade the teaching-learning materials/ resources at TEVET institutions based on NQF, NOC and NOS	**PE.4.1.** Develop print and equipment resources based on the revised PE/ TVET curricula **PE.4.2.** Production and distribution of revised printed and physical materials in adequate numbers to PE/ TVET institutions
	Enhance PE/ TVET courses offered through innovative online resources	**PE.4.3.** Upgrade ICT facilities in PE/ TVET institutions and provide online teaching resources
PE.5. Teacher/ Staff workforce Development	Enhance the quantity and quality of PE/ TVET faculty and staff	**PE.5.1.** Appoint adequate number of faculty and other staff in PE/ TVET institutions
	Improve PE/ TVET faculty & staff remunerations	**PE.5.2.** Increase Staff salaries in a gradual manner
	Training of PE/ TVET faculty	**PE.5.3.** Provide PE/ TVET faculties opportunities for training
	Equip PE/TVET institutions with state-of the art facilities for training teachers/faculties	**PE.5.4.** Equip PE/ TVET institutions for state-of the art ICT facilities
	PE/ TVET faculty is trained in using ICT extensively as a pedagogic tool	**PE.5.5.** Provide training to PE/ TVET faculties in using ICT extensively as a teaching learning tool

Table 32: Objectives and Activities proposed under the Policy Goal 3: Systemic Reforms and Management of Professional Education/Technical & Vocational Education and Training (TVET) sector		
Strategic Area	**Objectives**	**Activities**
PE.6. Systemic reforms and Management	Consolidate all systemic reforms	**PE.6.1.** Harmonize all legal and policy documents
	Capacity building for managing PE/ TVET at the Ministry of Employment, MOHSSE, SISEQ, at all levels	**PE.6.2.** Training of staff at MOE, MOHSSE, SISEQ for management of PE/ TVET programmes in their respective areas / sections **PE.6.3.** Training of Regional staff in various aspects of PE/ TVET management
PE.7. Monitoring and Knowledge Management	Establishing and Strengthening PE/ TVET Management System (MIS) and harmonizing the system with other education subsector EMIS to have an integrated EMIS	**PE.7.1.** Establishing a legal framework for a comprehensive EMIS **PE.7.2.** Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS **PE.7.3.** EMIS data collection tools and guidelines developed and finalized **PE.7.4.** Create a web-based GS EMIS with all up-to-date technology specifications **PE.7.5.** Equip PE/ TVET institutions with the new EMIS system
	Capacity building of staff at various levels for collecting/ compiling PE/ TVET information on various indicators	**PE.7.6.** Training of staff at various levels for collecting and entering data onto paper based tools and web-portal
	Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**PE.7.7.** Training of staff at various levels for analyzing and reporting EMIS statistics
	Strengthening the dissemination and use of EMIS analysis	**PE.7.8.** Produce PE/ TVET EMIS analytical reports and publish it for larger audience
	Strengthening research & evaluation of TVET/PE sector	**PE.7.9.** Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of PE/ TVET

5.4 Higher Education

The activities for TVET and Higher Education sectors are summarized in the tables below.

5.4.1 Policy goal 1: Enhance access and participation

Strategic Area 1: Access and participation: As the country has one of the lowest GER at HE, one of the most strategic intervention is to increase enrollments in the most relevant areas. Under the strategic area of access and participation, the main activities are related to removal of quota systems, expanding the spaces /seats in currently available courses and trades, introducing new courses and also introducing alternative modes of providing the courses. As currently most of the students in HE are at the Bachelors levels, availability of spaces and courses at Masters level will be expanded. In addition, expanding the Higher Education infrastructure and facilities is also an important activity. In higher education, more student support activities will be designed to facilitate increased participation of students.

Strategic Area 2: Safe and enabling learning environments: Apart from upgrading the institutional infrastructure and facilities and complying them to the state prescribed standards in terms of safety and quality, mechanisms will be put in place in post-secondary level institutions to address any complains regarding crime, violence and any form of harassment (discriminatory behavior and sexual harassment) in campus.

5.4.2 Policy Goal 2: Quality and Relevance

Strategic Area 3: Curriculum and Assessment: Under this strategic area, the proposed National Qualification Framework (NQF) being developed for PE/TVET is going to be of immense importance ot HE as well. The NQF, revised National Occupational Classifications (NOC) and National Occupational Standards (NOS) will be used for informing HE curriculum and quality assurance as well. The curricula for each course offered will be reviewed to ensure meeting national and international standards and to address the latest academic advances in the respective fields. Assessment methods and certification procedures will also be reviewed to keep up with the revisions in curriculum. In addition, research and development (R&D) will be prioritized.

Strategic Area 4: Teaching Learning Materials and use of Technology, introducing extensive use of ICT as a pedagogic tool: The HE institutions will be upgraded in terms of laboratories, lab materials, libraries and state-of the art ICT provisions and use for various purposes. There will be an assessment of requirements in these institutions. Using ICT not only as a skill, but also using ICT extensively to support pedagogy is even more relevant in post-secondary education. Massive Online Open Courses and virtual classrooms can be enabled in universities through the wider use of ICT. Efforts will be made in this direction to enhance education provision and quality in HE institutions.

Strategic Area 5: Faculity and professional development: Under this strategic area, the activities include: (a) enhance the working environment for faculties and staff; (b) attract highly qualified personnel for the institutions, both in terms of academic faculty and institutional managers; (c) devise and implement faculty improvement programmes; (d) develop plans to enhance the research and international engagement of faculties and institutions.

5.4.3 Policy goal 3: Governance and management

Strategic Area 6: Systemic reforms and Management: Given the ongoing reforms, capacity building of staff in HE institutions and the Ministries is an important activity under this strategic area.

Strategic Area 7: Knowledge Management and M&E: As in the case of other sub-sectors, an important activity under this strategic area is to develop comprehensive Education Management Information Systems for HE. The comprehensive EMIS for MOHSSE should cover the following: (a) Institutional Information System; (b) Student Information System; (c) Course and curriculum management systems; (d) Human Resource Information Systems; (e) Financial Management Information System and payrolls; (f) Institutional Quality Assurance System; and finally (g) institutional inventories/asset management system. In addition, a system for conducting relevant research and collaboration with international institutions for the same will be promoted.

Table 33: Objectives and Activities proposed under the Policy Goal 1: Expand Access and Participation in Higher Education

Strategic Area	Objectives	Activities
HE.1. Access & participation	Expand access to Higher Education by introducing new courses and more spaces in HE institutions	**HE.1.1.** Introduce new HE courses **HE.1.2.** Increase the number of seats in existing courses
	Increase availability of good quality HE spaces	**HE.1.3.** Reconstruct/ repair/ rehabilitate HE infrastructure
	Engage more private and foreign universities in higher education	**HE.1.4.** Establish / strengthen strategies to engage more private and foreign universities in higher education
	Expand access to higher education in line with the rising quotas by simultaneously raising the quality of higher education	**HE.1.5**. Systematically increase quotas in HE, at the same time, reform entrance exams for students **HE. 1.6.** Review and reform the expulsion policies related to performance before the final year of the HE courses
	Expand access to distance education, beyond the existing admission quota	**HE.1.7.** Introduce /reform distance education mechanism **HE.1.8.** Explore possibilities of introducing Massive Online Open Courses (MOOC)
HE.2. Safe and enabling learning environments in education institutions	Strengthening HE institutional facilities to ensure physical safety of the places	**HE.2.1.** Construct/ repair HE facilities to ensure physical standards are met
	Strengthen Disaster Risk Reduction and Emergency preparedness of HE institutions	**HE.2.2.** Equip physical environment of HE institutions for DRR & EP
	Strengthening institutional policies and practices to ensure safe behaviour in HE institutions	**HE.2.3.** Review and revise HE institutional policies and redressal mechanisms related to abuse (including sexual/gender harassment), crime and violence among HE trainees

Table 34: Objectives and Activities proposed under the Policy Goal 2: Enhancing Quality and Relevance of Higher Education		
Strategic Area	**Objectives**	**Activities**
HE.4. Curriculum and Assessment	Development of a National HE Qualification Framework	**HE.3.1.** Develop and endorse a National Qualification Framework (NQF) for HE
	Enhance the HE curriculum based National Qualification Framework	**HE.3.2.** Develop/ revise HE curricula based on National Qualifications Framework
	Enhance the HE assessment and certification mechanisms	**HE.3.3.** Develop new/revise assessment and certification mechanism for HE programmes
	Enhance the on-site training component of HE programmes	**HE.3.4**. Review practical content of HE programmes
HE.4. Teaching Learning Materials, including Technology as a pedagogic tool	Enhance /Upgrade the teaching-learning materials/ resources at HE institutions based on NQF and curriculum	**HE.4.1.** Develop print and equipment resources based on the revised HE curricula **HE.4.2.** Production and distribution of revised printed and physical materials in adequate numbers to HE institutions
	Enhance HE courses offered through innovative online resources	**HE.4.3.** Upgrade ICT facilities in HE institutions and provide online teaching resources
	Impart courses through online platforms	**HE.4.4.** Create massive open online Courses (MOOC) for youth to enroll and learn in a distance mode
HE.5. Teacher/ Staff workforce Development	Enhance the quantity and quality of HE faculty and staff	**HE.5.1.** Appoint adequate number of faculty and other staff in HE institutions
	Improve HE faculty & staff remunerations	**HE.5.2.** Increase Staff salaries in a gradual manner
	Training of HE faculty	**HE.5.3.** Provide HE faculties opportunities for training and research
	HE faculty is trained in extensive use of ICT as a pedagogic tool	**HE.5.4.** Provide training to HE faculties in using ICT as a teaching learning tool **HE.5.5.** Train HE faculty in the extensive use of ICT for Teaching and research

Table 35: Objectives and Activities proposed under the Policy Goal 3: Systemic Reforms and Management of Higher Education		
Strategic Area	**Objectives**	**Activities**
HE.6. Systemic reforms and Management	Capacity building for managing HE at the Ministry of Employment, MOHSSE, SISEQ, at all levels	**HE.6.1.** Training of staff at MOE, MOHSSE, SISEQ for management of HE programmes in their respective areas / sections
	Training of Regional staff in various aspects of HE management	**HE.6.2.** Training of Regional staff in various aspects of HE management
HE.7. Monitoring and Knowledge Management	Establishing and Strengthening HE Management System (MIS) and harmonizing the system with other education subsector EMIS to have an integrated EMIS	**HE.7.1.** Establishing a legal framework for a comprehensive EMIS **HE.7.2.** Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS **HE.7.3.** EMIS data collection tools and guidelines developed and finalized **HE.7.4.** Create a web-based HEMIS with all up-to-date technology specifications **HE.7.5.** Equip HE institutions with the new EMIS system
	Capacity building of staff at various levels for collecting/ compiling HE information on various indicators	**HE.7.6.** Training of staff at various levels for collecting and entering data onto paper based tools and web-portal
	Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**HE.7.7.** Training of staff at various levels for analyzing and reporting EMIS statistics
	Strengthening the dissemination and use of EMIS analysis	**HE.7.8.** Produce HE EMIS analytical reports and publish it for larger audience
	Strengthening research & evaluation of HE sector	**HE.7.9.** Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of HE

5.5 Activities, Outputs and Timeline

As an important next step, for all the activities mentioned above for different sub-sectors of education under the policy goals and strategic areas, the outputs expected and indicators to measure outputs are provided in the tables below.

5.5.1 Preschool Education

Table 36. Detailed Activities and timeline for Education sub-sector: Preschool Education
Strategic Area 1. Expand preschool provision and improve physical conditions

Objectives	Activities	Outputs	Output Indicators		Years of Implementation				
				2018	2019	2020	2021	2022	2023
Expand preschool provision and improve physical condition of preschool educational institutions	**PS.1.1.**Map supply and demand for ECE to determine access / expansion related construction needs	Strategy to expand preschool education access based on the mapping is developed	Availability of a detailed plan for preschool education expansion	No	Yes	Yes	Yes	Yes	Yes
		Access gap in preschools in lagging regions and other regions reduced	Access gap in preschools in lagging regions	14.1%	13.1%	12.1%	11.1%	10.1%	9,1%
Increase availability by constructing new preschools	**PS.1.2.** Construction of new preschools	Total number of government preschools increase in the country	Number of newly constructed government preschools	40	5	5	5	5	5
Increase capacities of preschool spaces through reconstruction, renovation and rehabilitation of existing unused/abandoned preschool infrastructure	**PS.1.3.** Renovate /repair/ rehabilitate existing preschools	Existing preschools reconstructed/ repaired and ready to accommodate more children	Number of preschools renovated/repaired/ rehabilitated	327	350	350	350	350	350
	PS.1.4. Preparing vacant premises/ spaces for expanding access to preschool education	Number of vacant premises/ spaces readied to accommodate preschools and enroll more children	Vacant places in public preschools	86000	84000	83000	82000	81000	80000
Expand alternative, innovative, flexible, low cost ECE programmes to enroll more children, especially from disadvantaged groups	**PS.1.5**. Expand the half-day model Early Childhood Education (ECE) in more preschools in regions	Increase in the number of preschools offering half-day models	Number of preschools providing half-day model of ECE	1220	2420	3020	3620	4220	4820
		Increase in the number of children participating in half-day preschools	Number of children enrolled in half-day model ECE	95000	145000	195000	254000	294000	344000
	PS.1.6.Develop alternative, flexible ECE models in more preschools, including those for children with special needs & disabilities	Increase in the number of preschools providing alternative, flexible models of ECE programmes	Number of preschools providing alternative, flexible models of ECE programmes	0	0	6			
		Increase in the # of children enrolled in alternative, flexible model ECE	Number of children enrolled in alternative, flexible model ECE	0	0	180			
Establish/Strengthen & implement strategies to engage private sector in preschool expansion/ construction/ maintenance	**PS.1.7.** Develop a network of non-governmental preschools and institutions through Public-Private Partnerships	Policy framework supporting PPP (including licensing, fees, subsidies, tax concessions etc.) clearly established	Availability of the regulatory and supportive framework for PPP in preschool education	Yes	Yes	Yes	Yes	Yes	Yes
		Increase in the number of preschools under the PPP models	Number of preschools operating under the PPP models	1100	1375	1650	1950	2250	2600
		Increase in preschool enrollments through PPP model	Number of children enrolled in preschools operating under PPP	58847	103125	123750	146250	168750	195000
Strengthen regulatory framework to support inclusive education in preschools	**PS.1.8**. Develop and implement a special education policy and measures to ensure inclusive education for children with disabilities and special needs	Inclusive Education policy developed and approved by Government	inclusive education policy endorsed by government for implementation	No	Yes	Yes	Yes	Yes	Yes
		Special enrollment drives for children with disabilities and special needs to participate in regular preschools in an inclusive environment	Number of children with disabilities and special needs enrolled in regular preschools	0	100	200	300	400	500

Table 37. Detailed Activities and timeline for Education sub-sector: Preschool Education Strategic Area 2. Ensure Safe and enabling learning environments in preschools									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Strengthening preschool facilities that are child-friendly, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	**PS.2.1.** Build and upgrade preschool facilities, especially physical facilities, that adhere to child-friendly principles	Increase in the number of preschools that adhere to child friendly principles in terms of physical facilities	▪ Preschools with boundary wall ▪ Preschools with drinking water facility ▪ Preschools with adequate number of functional toilets ▪ Preschools with CWD/CWSN friendly toilet ▪ Preschools by WASH facility (drinking water, functional toilets & hand wash) ▪ Preschools with ramps (disable friendly) ▪ Preschools with playground/play area ▪ Preschools with uninterrupted electricity supply at least 5 days a week ▪ Preschools with heating facilities (during winter) ▪ preschools with Kitchen for preparing meals for children ▪ Preschools with Separate room for dining	TBD	TBD	TBD	TBD	TBD	TBD
Develop strategies for safe behavior and disaster risk reduction in preschools	**PS. 2.2**.Training preschool teachers on including lessons/ activities related to disaster risk management & safe behavior;	Preschool teachers are trained to impart lessons on disaster risk reduction and safe behavior	▪ Number of preschool teachers trained in imparting lessons on safe and inclusive principles to preschool children	0	2900 (5%)	2900 (5%)	2900 (5%)	2900 (5%)	2900 (5%)
Develop and implement strategies in preschools to mitigate crime, violence and abuse, especially bullying	**PS.2.3.** Training preschool teachers on including lessons/ activities related to prevention and protection against violence and abuse	Preschool teachers are trained to impart lessons on violence, abuse and other risky behavior	▪ Number of preschool teachers trained in imparting lessons on managing violence, abuse and risky behaviour to preschool children	TBD	TBD	TBD	TBD	TBD	TBD

Table 38. Detailed Activities and timeline for Education sub-sector: Preschool Education Strategic Area 3. Curriculum and Assessment									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Provide preschool children with an enhanced curriculum based on Early Learning Development Standards (ELDS)	**PS.3.1.** Carry out a review/auditing of the new curriculum & ELDS for gender & social sensitivity	Curriculum is enhanced by findings of the review	Availability of the revised curriculum & ELDS addressing the recommendations of curriculum review	Yes	Yes				Yes
	PS.3.2. Train preschool teachers in implementing ELDS / curriculum	Preschool teachers are prepared to implement the new curriculum in their schools	Number of teachers trained in ELDS/ curriculum		10%	30%	50%	70%	80%
Enhance the assessment of child development milestones of preschool children according to the new curriculum/ ELDS at preschool level a Enhance the system level assessment of preschool education quality and outcomes through Measuring Child Development and Early Learning (MODEL)	**PS.3.3**. Establish a system at MOPSE to introduce Measuring Early Learning Quality and Outcomes (MELQO) and its components, namely: (a) Measuring Child Development and Early Learning (MODEL); (b) Measuring the quality of Early Learning Environments (MELE)	National level system to conduct MELQO (MODEL and MELE) in collaboration between MOPSE and SISEQ is fully functional - With adequate qualified staff - Staff trained in MELQO	National system established for measuring system quality and outcomes	No	No	Yes	Yes	Yes	Yes
		National level sample based MELQO conducted in every 2 years - MELQO Analytical report prepared, published & disseminated	National level assessment of preschool quality and outcomes conducted at least once in every three years	No	No	No	Yes	Yes	Yes

Table 39. Detailed Activities and timeline for Education sub-sector: Preschool Education Strategic Area 4. Teaching Methodology, Teaching Learning Materials, Technology including wider use of ICT as a pedagogical tool									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Promotion of innovative teaching learning methodology and materials for enhancing preschool children's experience	**PS.4.1.** Provision of child-friendly teaching-learning / play materials and environment	Preschools are equipped with child-friendly environments	Proportion of preschools refurbished with child-friendly elements		5%	15%	25%	30%	50%
		Preschools are equipped with required child-friendly toys and play equipment	Preschools with materials/toys for imaginative and developmental play as per ELDS requirements		5%	15%	25%	30%	50%
			Preschools with Drawing and art materials as per ELDS requirements		5%	15%	25%	30%	50%
			Preschools with Musical instruments/toys as per ELDS requirements		5%	15%	25%	30%	50%
Introduction of wider use of ICT for enhanced teaching-learning activities and pre-school management	**PS.4.2.** Equip Preschools with ICT facilities	Preschools equipped with functional computers	Number of preschools with functional computers		30%	44%	60%	70%	80%
		Preschools equipped with internet connections (uninterrupted & highspeed)	Number of preschools with internet connections (uninterrupted & highspeed)		0	20%	30%	40%	50%
		Child-development related ICT programmes /software developed (at national level)	Number of child-development related ICT programmes /software developed (at national level)	0	1	2	3	4	5
		Preschools are provided with ECE-appropriate and child-development enabling software/ programmes	Number of preschools provided with ECE-appropriate and child-development enabling software/ programmes	0%	10 %	20%	40%	60%	80%
	PS.4.3. Train teachers in the wider use of ICT for teaching and engaging children	Preschool teachers & staff trained in the wider use of ICT for teaching-learning activities	Proportion of preschool teachers trained in the wider use of ICT for ECE purposes	0%	10%	20%	40%	60%	80%
	PS.4.4. Preschool management & staff trained to use ICT for preschool management	Proportion of preschool management & staff trained in the extensive use of ICT for preschool management	Proportion of preschool management & staff trained in the wider use of ICT for preschool management		10%	50%	100%		

Table 40. Detailed Activities and timeline for Education sub-sector: Preschool Education Strategic Area 5. Preschool Teacher Workforce Development									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Increase the number of preschool teachers to match the expansion of preschool enrolments without affecting the favorable Pupil Teacher Ratio	**PS.5.1**. Appointment of new teachers	New teachers are appointed in new preschools & preschools with teacher vacancies	Number of new teachers appointed	7853	8267	10050	12050	14050	16050
		Reduction in teacher vacancies	Number of vacant positions in preschools	414	250	200	180	150	150
	PS.5.2. redeployment of existing teachers	Redeployment of existing teachers to ensure PTR that justify economic efficiency	Pupil: Teacher Ratio (PTR) at preschools	1:30	1:30	1:30	1:30	1:30	1:30
Improve the service conditions of teachers	**PS.5.3.** Systematic increase in preschool teacher salaries	Preschool teacher salaries are increased in a gradual manner	% increase in teacher salaries (overall) from 2017 base salaries	77%	20%	20%	20%	20%	20%
	PS.5.4. Develop a comprehensive incentive system for teachers	Teachers benefit from concessional bank loans, vouchers, health care and transportation	% of teachers benefiting from incentive systems	100%	100%	100%	100%	100%	100%
Raise the level of teacher qualifications and skills	**PS.5.5.** New recruitment of teachers attracts candidates with higher qualifications	More preschool teachers with higher qualifications in the system	% of preschool teachers with higher qualifications	27,3%	29 %	31 %	34 %	37 %	41 %
	PS.5.6. Training of preschool teachers (areas other than curriculum/ ELDS)	Increase in preschool Teachers are trained in preschool management and other aspects	Proportion of teachers trained in preschool management	20%	20%	20%	20%	20%	20%
Support preschool teachers to improve preschool activities	**PS.5.7**. Design a supportive supervision mechanism for supporting preschool teachers' activities with children	A system for regular supportive supervision and academic support to preschool teachers is established and functioning	Proportion of preschools visited by supportive/academic support supervisors /methodologists at least 2 times a year	60%	80%	100%	100%	100%	100%
Improve the legal standing and protection of preschool teachers	**PS.5.8.** Legally prohibit use of preschool teachers for any function other than related to preschool education	Preschool Education teachers' work is related to only their functional duties and no misuse of teachers for other activities	Number of cases reported by teachers through social media or grievances cell (through hotline) about use of them for non-functional duties	12					
Improve the image and status of teachers in society	**PS.5.9.** Prepare and roll out advocacy activities	Advocacy measures targeted at improving teacher image & status rolled out	Number of advocacy activities carried out to promote teacher images by Government	30	46	58	65	75	80

Table 41. Detailed Activities and timeline for Education sub-sector: Preschool Education Strategic Area 6. Systemic reforms and management									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Consolidate all systemic reforms	**PS.6.1.** Harmonize all legal and policy documents	All legal and policy provisions in preschool education sector is consolidated and harmonized in one document	Harmonized preschool policy document available	No	No	Yes			
Capacity building of Preschool Education Ministry / Departments at all levels	**PS.6.2.** Training of staff at the MOPSE for management of preschool areas /programmes in their respective areas / sections	Staff at the Ministry of Preschool Education have all knowledge and skills to manage preschool education plans and programmes	Number /proportion of MOPSE staff trained in their area of specialization through short-term programmes or study visits abroad	1%	3%	5%	7%	9%	10%
	PS.6.3. Training of Regional and district staff in various aspects of preschool management	Staff at the regional and district Education departments have all knowledge and skills to manage preschool education plans and programmes	Number / proportion of regional/ district level staff trained in preschool management	72	72	72	72	72	72
	PS.6.4. Training of preschool managers in the management of preschools	Preschool Managers/head teacher have all the knowledge and skills to manage preschool programmes	Number/proportion of preschool managers trained through preschool management programmes	1800	1900	2000	2100	2200	2300
Establish / Enhance collaboration / convergence mechanisms between preschools and other services (health, justice etc.)	**PS.6.5.** Collaboration of preschools and neighboring general secondary schools to share / feed information on the child development	Preschool and General secondary education sub-sectors have coordinated activities at all levels, especially at the institution levels	Number/proportion of children in grade 1 in general secondary schools whose preschool child development records are provided to the schools	No					
	PS.6.6. Development of a Coordination strategy for MOPSE to work with other Ministries (Ministries of Health, Justice, etc.)	An Inter-ministerial coordination strategy to enhance preschool services is established and functioning to its fullest capacity	Availability of an Inter-ministerial coordination strategy to enhance preschool services	No	Yes	Yes	Yes	Yes	Yes
Promote participation of parents/ community in ECE management	**PS.6.7.** Design and initiate outreach / awareness /advocacy campaigns to on the benefits of ECE	Knowledge, Attitude and Practices (KAP) of community with respect to ECE is analyzed	Analysis of KAP is available	No	Yes	Yes			
	PS.6.8. Design advocacy campaigns for promoting parental involvement in preschool management	PTA is formed in preschools and meeting regularly	Number of Parent-Teacher-Association (PTA) meeting held in a year	2	2	2	2	2	2
			Average proportion of parents participating in PTA meeting	40%	45%	50%	55%	60%	65%

Table 42. Detailed Activities and timeline for Education sub-sector: Preschool Education Strategic Area 7. Knowledge Management and M&E for evidence based decision making in education sector									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Strengthening preschool Education Management System (EMIS) and harmonizing with other education subsector EMISs to have an integrated EMIS	**PS.7.1.** Establishing a legal framework for a comprehensive EMIS	A decree by President providing legal status to the EMIS	Decree of the President providing legal status to the EMIS	Plan development	Acceptance of the plan, execution	Execution, evaluation of initial results	Execution, evaluation of their results	Execution, evaluation of their results	Execution, evaluation of their results
	PS.7.2. Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS	Preschool EMIS is harmonized with an integrated EMIS	Preschool EMIS is part of the integrated EMIS	Development, approval	Adoption				
	PS.7.3. EMIS data collection tools and guidelines developed and finalized	EMIS data collection forms (DCF) and guidelines finalized	EMIS DCF and guidelines available to all preschools	Development, approval	Development of joint work with IP Health care, other levels of education	Implementing Collaboration with IP Healthcare, Other Levels of Education	Interaction assessment, development of new interaction options	Interaction assessment, development of new interaction options	Interaction assessment, development of new interaction options
Capacity building of staff at various levels for collecting/ compiling preschool information on various indicators	**PS.7.4.** Training of staff at various levels for collecting and entering data onto paper based tools and web-portal	Staff at MOPSE – EMIS unit knowledgeable about various aspects of EMIS	Number of staff at MOPSE – EMIS unit trained in various aspects of EMIS	Development, implementation of a pilot version of the data collection form	Pilot data collection, evaluation, correction of the form, implementation of the final form	Using Forms	Using Forms	Using Forms	Using Forms
		Regional EMIS department staff knowledgeable about data collection and compilation in EMIS	Number of staff at regional preschool education department who is trained in collecting and entering EMIS data	10%	50%	100%	100%	100%	100%
		District EMIS department staff knowledgeable about data collection and compilation in EMIS	Number of staff at district preschool education department who is trained in collecting and entering EMIS data	10%	50%	100%	100%	100%	100%
		Preschool staff knowledgeable on entering data into EMIS portal/DCF	Number of preschool staff (preschool level) who is trained in compiling and entering data into EMIS portal/DCF	10%	50%	100%	100%	100%	100%
Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**PS.7.5.** Training of staff at various levels for analyzing and reporting EMIS statistics	MOPSE -Statistics unit staff knowledgeable in using EMIS data and produce analytical reports	Number of staff at MOPSE - Statistics unit who is trained in using EMIS data and produce analytical reports	10%	50%	100%	100%	100%	100%
		Regional Preschool Education Department	Number of staff at Regional Preschool Education	10%	50%	100%	100%	100%	100%

Table 42. Detailed Activities and timeline for Education sub-sector: Preschool Education Strategic Area 7. Knowledge Management and M&E for evidence based decision making in education sector									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
		staff knowledgeable in using EMIS data and producing analytical reports	Department who is trained in using EMIS data and producing analytical reports						
Strengthening the dissemination and use of EMIS analysis	**PS.7.6.** Produce Preschool EMIS analytical reports and publish it for larger audience	Preschool EMIS statistics and analytical report prepared and disseminated	At least one analytical report using preschool EMIS data published on MOPSE & EMIS portal	10%	50%	100%	100%	100%	100%
Strengthening research & evaluation of preschool education sector	**PS.7.7.** Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of preschool education	MOPSE and SISEQ support research to understand sectoral status, progress and challenges	Number of studies commissioned by MOPSE /SISEQ to National Universities/ research institutions	1	15	215	215	215	215
		MOPSE and SISEQ supported by DPs in research to understand sectoral status, progress and challenges	Number of studies commissioned by multi-lateral /bilateral development institutions in agreement with MOPSE	1	2	3	4	5	6

5.5.2 General Secondary Education (GSE)

Table 43. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 1. Strengthen /Improve General Secondary school physical conditions									
					Years of Implementation				
Objectives	**Activities**	**Outputs**	**Output Indicators**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Improve the infrastructure and physical conditions of general secondary schools	**GS.1.1.** Mapping of schools that require reconstruction/ repair	Periodic reports highlight the infrastructure gaps and requirements	Periodic reports on the infrastructure gaps and construction requirements	No	Yes	Yes	Yes	Yes	Yes
	GS.1.2. Renovate/repair/rehabilitate GS schools	School infrastructure is improved through renovation & repair	Number of schools reconstructed /repaired	500	500	500	600	600	600
Identify "Out-of-school" /non-attending children and improve their attendance of schools	**GS.1.3.** Conduct a mapping/study to identify the number of out-of-school children and the reasons	Study report with estimates of children not attending schools regularly and reasons	Student attendance rate						
	GS.1.4. Develop strategies for bringing children non-attending to school	Strategy for improving student attendance developed & implemented	proportion of children regularly attending school	99.3	99.4	99.4	99.5	99.5	99.6
Ensure Inclusive Education for disabled and children with special needs (CWSN) is implemented	**GS.1.5.** Develop and adopt policies for implementing Inclusive Education	Policies and legal framework for implementing inclusive education in place	Availability of inclusive education policy	No	Yes	Yes	Yes	Yes	Yes
	GS.1.6. Renovating Schools to make it conducive for inclusive education	Increase in the number of General secondary schools made "barrier free".	Number of schools made "barrier free" by putting in place: (a) ramps to access school buildings; (b) equipment for blind, deaf, dumb, locomotive disabilities; (c) at least one teacher trained in inclusive education practices	a) 8399 b) c) 32	a) 8999 b) c)75000	a) 9600 b) c)75000	a) 9650 b) c)75000	a) b) c)75000	a) b) c)75000
	GS.1.7. Using social model for identifying children with disability	Children with disabilities are identified using social model of disability classification	Number of students with disability identified using social model of disability (as against the medical model)	TBD	TBD	TBD	TBD	TBD	TBD

Table 44. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 1. Ensure Safe and enabling learning environments in general secondary Schools									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Strengthening the GS school facilities that are child-friendly, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	**GS.2.1**. Build and upgrade GS School facilities, especially physical facilities, that adhere to child-friendly principles	Increase in the number of GS schools that adhere to child friendly principles in terms of physical facilities	▪ Schools with boundary wall ▪ Schools with drinking water facility ▪ Schools with adequate number of functional toilets separately for boys and girls ▪ Schools with CWD/CWSN friendly toilet ▪ Schools by WASH facility (drinking water, functional toilets & hand wash) ▪ Schools with ramps (disable friendly) ▪ Schools with playground/play area ▪ Schools with uninterrupted electricity supply ▪ Schools with heating facilities (during winter)	6071 6859 8138 8138 8399 TBD 9628 TBD 380	6491 7179 8508 8508 8999 TBD 9640 TBD 481	6961 7551 8878 8878 9600 TBD 9660 TBD 290	6991 7582 9248 9248 9680 TBD TBD TBD 210	7021 7610 9618 9618 TBD TBD TBD 180	7051 7640 9618 9648 TBD TBD TBD 200
Develop strategies for safe behavior and disaster risk reduction (DRR) & Safe Behavior (SB) in Schools	**GS.2.2.** Equip physical environment of GS schools for DRR & EP	GS schools are equipped with DRR & EP related physical features	▪ Schools with an evacuation facility /alternative door ▪ Schools with fire extinguisher ▪ Schools where emergency preparedness simulation exercise is done at least once a year ▪ Schools which are accessible through an all-weather road	100% 100% 100% 7545	100% 100% 100% 7595	100% 100% 100% 8045	100% 100% 100% 8095	100% 100% 100% 9100	100% 100% 100% 9300
	GS.2.3. Training GS school teachers on using DRR -SB curriculum specific materials and activities	GS school teachers are trained to impart lessons on DRR & SB using the curricular materials developed	▪ Number of GS school teachers trained in imparting lessons on DRR & SB lessons to GS school students	Annually, planned in each region	Annually, planned in each region	Annually, planned in each region	Annually, planned in each region	Annually, planned in each region	Annually, planned in each region
Develop and implement strategies in GS Schools to mitigate crime, violence and abuse, especially bullying	**GS.2.4.** Training School teachers on including lessons/ activities related to prevention and protection against violence and abuse	GS School teachers /school based social workers are trained to impart lessons on violence, abuse and other risky behavior	▪ Number of GS School teachers /school based social workers trained in imparting lessons on managing violence, abuse and risky behaviour to preschool children		9000	9000	9000	9000	9000
	GS.2.5. Initiating advocacy campaigns on the prevention of school based violence.	Nation-wide, targeted advocacy campaign on prevention of school-based violence rolled out	▪ Number of advocacy campaign (print media and social media) rolled out against school-based violence, including bullying		10	10	10	10	10

Table 45. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 3. Curriculum and Assessment									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Enhance the curriculum based on competency based learning approach and make it more relevant for students	**GS.3.1.** Develop and endorse a National Curriculum Framework (NCF) reflecting competency-based learning approach	National Curriculum Framework (NCF) and related policies are developed and approved/ endorsed by government	Availability of New NCF reflecting competency based approach	No	Yes	Yes	Yes	Yes	Yes
	GS.3.2. Revise curriculum to reflect competency-based learning approach	Revised curriculum for core subjects for all grades (1-11)	Availability of revised curriculum based on new NCR for core subjects for all grades (1-11)	No	Yes	Yes	Yes		
	GS.3.3. Carry out a review/auditing of the new competency based curriculum for ensuring gender & social sensitivity	Report on the review of curriculum for ensuring gender-sensitivity and social sensitivity (especially addressing stereotypes)	Availability of the report reflecting areas for curriculum revision	No	Yes	Yes	Yes		
	GS.3.4. Revise textbooks for reflecting the new competency based curriculum	Text books are revised as per the new curriculum for core subjects for all grades (1-11)	Availability of Revised textbooks of core subjects for all grades (1-11)	No	Yes (partial)	Yes (partial)	Yes (partial)	Yes (partial)	Yes (partial)
	GS.3.5. Production and distribution of revised textbooks to all schools in adequate numbers	Adequate number of grade wise and subject wise textbooks package are printed and distributed to schools	Number of grade wise and subject wise textbooks packages produced	No	Yes	Yes	Yes	Yes	Yes
			Proportion of schools in receipt of full package of textbooks in required numbers		100%	100%	100%	100%	100%
Enhance the implementation of new curriculum	**GS.3.6.** Training of teachers in new competency based curriculum	Teachers are trained in using subject and grade specific new curriculum and textbooks for teaching	Number of subject and grade specific teachers trained in competency based curriculum and textbooks		75000	75000	75000	75000	75000
Enhance the instructional time and its effectiveness	**GS.3.7.** Conduct studies to understand the instructional time-on-task and nature of tasks of teachers and students in schools, separately for primary and secondary	Findings of the study available for informing strategies for enhancing the quantity and quality of instructional time and activities	Study report on the instructional time and quality in primary grades		Yes	Yes	Yes	Yes	Yes
			Study report on the instructional time and quality in secondary grades		Yes	Yes	Yes	Yes	Yes
Enhance Learning Assessment Systems at various levels	**GS.3.8.** Review and revise the methods of classroom assessments to reflect continuous & comprehensive evaluation (CCE), formative & summative evaluation (FSE) of student learning on the lines of competency-based approach in classrooms	Framework and tools to guide teachers in CCE, FSE of individual student learning on the lines of competency-based approach in classrooms	Availability of framework and tools for formative and summative assessments in classrooms.		Yes	Yes	Yes	Yes	Yes
		General secondary school teachers are trained in enhancing CCE & FSE assessments in classrooms	Number of GSE teachers trained in CCE & FSE in line with competency based curriculum		75000	75000	75000	75000	75000

Table 45. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 3. Curriculum and Assessment									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Conduct regular sample-based National Assessment Surveys to assess the learning outcomes at system level	**GS.3.9.** Establish a National Assessment System (NAS) to design and conduct sample-based National Assessment Surveys using the modern assessment methodologies (using IRTs)	National Assessment System (NAS) in place (in collaboration between MOPSE and SISEQ) with adequate qualified staff	NAS in place	No	In process	Yes	yes	Yes	yes
	GS.3.10. Capacity building for NAS	NAS specialists are trained in various aspects of conducting NAS	Number of NAS specialists trained in various aspects of conducting NAS	0	100	1065	1065	1065	1065
	GS.3.11. Conduct NAS every year for separate grades	NAS conducted every year for different grades	NAS for grades 4/6/9	9		9		9	
	GS.3.12. Analyze NAS data and prepare results	NAS analytical reports prepared	Availability of NAS analytical reports		1	1	1	1	1
	GS.3.13. Disseminate NAS reports to wider audience	NAS reports are disseminated through a variety of means to a wider audience	NAS reports published online on MOPE/SISEQ websites		1	1	1	1	1
			Workshops conducted to debate NAS findings		1	1	1	1	1
A study on the adaptation of the SSE curriculum and labour market requirements (this indicator is common for Professional education sector as well)	Commission a study on the adaptation of Secondary Specialized Education curriculum and labour market requirements	Better understanding of the relevance of new specialized secondary education curriculum to labor market requirements	Availability of the Report of the study		Yes	Yes	Yes	Yes	yes

Table 46. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 4. Teaching Learning Materials & Technology, including use of ICT as a pedagogic tool					Years of Implementation				
Objectives	**Activities**	**Outputs**	**Output Indicators**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Equipping schools, teachers and students with all necessary teaching-learning equipment & materials	**GS.4.1.** Provide and equip GS schools with Teaching Learning Equipment (TLE), including Laboratories, and lab materials	GS Schools are all equipped with laboratories	Proportion of GSE schools provided / refurbished labs and technical equipment by subject areas: a. Physics b. Chemistry c. Biology d. Foreign Language e. Computer/ICT	 87% 80% 80% 72% 42%	 90% 85% 85% 95% 47%	 92% 91% 91% 100% 52%			
Equipping schools, teachers and students with all necessary teaching learning materials	**GS.4.2.** Produce and distribute all necessary teaching learning materials (TLM) and other pedagogic materials to schools	All teachers in schools have at least one set of prescribed grade and subject specific teaching learning materials	Proportion of GSE teachers supplied with grade and subject specific: a. Methodological materials b. Teacher Handbooks c. Didactics products d. Electronic education resources	 a) 35% b) 35% c)20% d) 30%	 a)36% b)36% c)23% d)32%	 a)39% b)40% c)25% d)35%	 a)42% b)46% c)30% d)40%	 a)45% b)55% c)35% d)45%	 a)60% b)65% c)45% d)55%
Introduction of extensive use of ICT as a pedagogic tool for enhanced teaching-learning activities and GSE school management	**GS.4.3.** Provide all GS Schools all necessary infrastructure and materials to ensure Information-Communication Technology (ICT) enabled and Computer Aided Learning (CAL) programmes can be conducted	GS schools are equipped with ICT facilities	Number/proportion of Schools with adequate number (prescribed pupil: Computer ratio) functional computers	42%	47,2%	52,3%	58,2%	65,2%	70%
			Number /proportion of schools with uninterrupted electricity during school functioning time	100%	100%	100%			
			Number/Proportion of Schools with internet connection (uninterrupted & highspeed)	7%	37%	100%	100%	100%	100%
			Number ICT programmes /software developed to enhance computer/ ICT-enabled subject learning (at national level)	112	130	120	120	120	120
			Number of Schools provided with subject appropriate and software/ programmes						
	GS.4.4. Train the GS school teachers & staff in Computer-Aided Learning (CAL) and the extensive use of ICT for teaching-learning activities	GS school teachers & staff trained in Computer-Aided Learning (CAL) and the wider use of ICT for teaching-learning activities	Proportion of GSE teachers trained in CAL and the use of ICT for general secondary education purposes	75 000	75000	75000	75000	75000	75000
	GS.4.5. Train the GSE school management & staff to use ICT extensivelye for school management	GS school management & staff are trained to extensive use ICT for school management	Proportion of school management & staff trained in the wider use of ICT for school management	2050	4400	3200			

Table 47. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 5. Teacher Workforce Development									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Recruitment of new teachers and Redeployment of existing teachers to maintain desirable Pupil Teacher Ratio	**GS.5.1.** Appointment of new teachers & redeployment of existing teachers	Reduction in teacher vacancies	Number of new teachers appointed						
		Redeployment of existing teachers to ensure Pupil: Teacher Ratio (PTR) that justify economic efficiency	Pupil: Teacher Ratio (PTR) at GS schools	17,000	10,000	20,000	20,000		
Improve the service conditions of teachers	**GS.5.2.** Systematic increase in teacher salaries	Teacher salaries are increased in a gradual manner	% increase in teacher salaries (overall) from 2017 base salaries	13.3	13.21	13.12	12.98	12.60	12.30
	GS.5.3. Develop a comprehensive incentive system for teachers	Teachers benefit from concessional bank loans, vouchers, health care and transportation	% of teachers benefiting from incentive systems	1,477	1,741	1,915	2,954	5,908	
Raise the level of teacher qualifications and skills	**GS.5.4.** New recruitment of teachers attracts candidates with higher qualifications	More teachers with higher qualifications in the system	% of teachers with higher qualifications		1%	3%	10%	25%	
	GS.5.5. Develop a comprehensive in-service teacher training programme and ensure teachers are provided training in a regular manner	Increase in Teachers who are trained in School management and other aspects	Proportion of teachers trained in School management	83,6%	84,3%	86%	89%	92%	94%
Support teachers to improve classroom instructional time and activities in an effective manner	**GS.5.6.** Design an academic supervision mechanism for supporting teachers in instructional innovations and effectiveness	A system for regular supportive supervision and academic support to preschool teachers is established and functioning	Proportion of teachers reporting being visited by supportive/academic support supervisors /methodologists at least 2 times a year	200	400	800	1500	2000	2400
Improve the legal standing and protection of teachers	**GS.5.7.** Legally prohibit use of teachers for any function other than related to School education/activities	GSE teachers' work is related to only their functional duties and no misuse of teachers for other activities	Number of cases reported by teachers through social media or grievances cell (through hotline) about use of them for non-functional duties	147,000	108000	108000			
Improve the image and status of teachers in society	**GS.5.8.** Prepare and roll out advocacy activities	Advocacy measures targeted at improving teacher image & status rolled out	Number of advocacy activities carried out to promote teacher images by Government	20	30	30	30	30	30

Table 48. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 6. Systemic reforms and management									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Consolidate all systemic reforms	**GS.6.1.** Harmonize all legal and policy documents	All legal and policy provisions in GSE is consolidated and harmonized in one document	Availability of harmonized GSE policy document	No	Yes	Yes	Yes	Yes	yes
Capacity building of staff at MOPE / Departments at all levels	**GS.6.2.** Training of staff at the MOPE for management of GSE areas /programmes in their respective areas / sections	Staff at the MOPE have all knowledge and skills to manage GSE plans and programmes	Number /proportion of MOPE staff trained in their area of specialization through short-term programmes or study visits abroad	200	400	800	1500	2000	2000
	GS.6.3. Training of Regional and district staff in various aspects of GSE management	Staff at the regional and district Education departments have all knowledge and skills to manage GSE plans and programmes	Number / proportion of regional/ district level staff trained in GSE management		100	114	TBD	TBD	TBD
	GS.6.4. Training of GS School managers in the management of GSE	GS School Managers/head teacher have all the knowledge and skills to manage GSE programmes	Number/proportion of GS School managers trained through GSE management programmes	750	4400	4600	TBD	TBD	TBD
Establish / Enhance collaboration / convergence mechanisms between GSE and other services (health, justice etc.)	**GS.6.5.** Collaboration of GS schools with preschools to get /share information on preschool education and child development of new enrollment	Preschool and General secondary education sub-sectors have coordinated activities at all levels, especially at the institution levels	Number/proportion of children in grade 1 in general secondary schools whose preschool child development records are provided to the schools		100%	100%	100%	100%	100%
	GS.6.6. Development of a Coordination strategy for MOPE to work with other Ministries (Ministry of Health, Ministry of Justice, etc.)	An Inter-ministerial coordination strategy to enhance GSE is established and functioning to its fullest capacity	Availability of an Inter-ministerial coordination strategy to enhance GSE	No	yes	yes	yes	yes	yes
Promote participation of parents/ community in ECE management	**GS.6.7.** Design and initiate outreach / awareness /advocacy campaigns to for promoting parental involvement in school management	PTA is formed in preschools and meeting regularly	Number of Parent-Teacher-Association (PTA) meeting held in a year		4	4	4	4	4
			Average proportion of parents participating in PTA meeting	35%	40%	50%	60%	65%	70%

Table 49. Detailed Activities and timeline for Education sub-sector: General Secondary Education Strategic Area 7. Knowledge Management and M&E for evidence based decision making in education sector									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Establishing and Strengthening GS Education Management System (EMIS) and harmonizing with other education subsector EMISs to have an integrated EMIS	**GS.7.1.** Establishing a legal framework for a comprehensive EMIS	A decree by President providing legal status to the EMIS	Decree of the President providing legal status to the EMIS		Yes	Yes	Yes	Yes	Yes
	GS.7.2. Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS	GS EMIS is harmonized with an integrated EMIS	GS EMIS is part of the integrated EMIS		Yes	Yes	Yes	Yes	Yes
	GS.7.3. EMIS data collection tools and guidelines developed and finalized	EMIS data collection forms (DCF) and guidelines finalized	EMIS DCF and guidelines available to all GS schools		Yes	Yes	Yes	Yes	Yes
	GS.7.4. Create a web-based GS EMIS with all up-to-date technology specifications	School based data collection is enabled by a web-based EMIS data collection /compilation system	A web-based EMIS data collection /compilation system is developed		Yes	Yes	Yes	Yes	Yes
	GS.7.5. Equip GS Schools with the new EMIS system	All GS Schools are equipped with necessary technological materials for EMIS	Number of schools with EMIS system installed		20%	50%	100%	100%	100%
Capacity building of staff at various levels for collecting/ compiling GSE information on various indicators	**GS.7.6.** Training of staff at various levels for collecting and entering data onto paper based tools and web-portal	Staff at MOPE knowledgeable about various aspects of EMIS	Number of staff at MOPE – EMIS unit trained in various aspects of EMIS		100%	100%	100%	100%	100%
		Regional EMIS department staff knowledgeable about data collection and compilation in EMIS	Number of staff at regional GSE department who is trained in collecting and entering EMIS data		10%	50%%	100%	100%	100%
		District EMIS department staff knowledgeable about data collection and compilation in EMIS	Number of staff at district GSE department who is trained in collecting and entering EMIS data		10%	50%	100%	100%	100%
		GS School staff knowledgeable on entering data into EMIS portal/DCF	Number of GS staff trained in compiling data into EMIS portal/DCF		100%	100%	100%	100%	100%
Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**GS.7.7.**Training of staff at various levels for analyzing and reporting EMIS statistics	MOPE -Statistics unit staff knowledgeable in using EMIS data and produce analytical reports	Number of staff at MOPE -Statistics unit who is trained in using EMIS data and produce analytical reports		100%	100%	100%	100%	100%
		Regional GSE Department staff knowledgeable in using EMIS data and producing analytical reports	Number of staff at Regional GSE Department who is trained in using EMIS data and producing analytical reports		10%	50%	100%	100%	100%
Strengthening the dissemination and use of EMIS analysis	**GS.7.8.** Produce GS EMIS analytical reports and publish it for larger audience	GS EMIS statistics and analytical report prepared and disseminated	At least one analytical report using GS EMIS data published on MOPE & EMIS portal		Yes	Yes	Yes	Yes	Yes
Strengthening research & evaluation of GS education sector	**GS.7.9.** Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of GSE	MOPE and SISEQ support research to understand sectoral status, progress and challenges	Number of studies commissioned by MOPSE /SISEQ to National Universities/ research institutions	1	2	2	2	2	2
		MOPE and SISEQ supported by DPs in research to understand sectoral status, progress and challenges	Number of studies commissioned by multi-lateral /bilateral development institutions in agreement with MOPE	1	2	2	2	2	2

5.5.3 Professional Education (PE) and Technical and Vocational Education & Training (TVET)

Table 50. Detailed Activities and timeline for Education sub-sector: Professional Education & Technical and Vocational Education & Training (TVET) Strategic Area 1. Strengthen /Improve PE/TVET provision and infrastructure									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Expand the trades and courses offered at HE	**PE.1.1.** Introduce new TVET trades and courses in PE /TVET institutions	New courses and trades are introduced in PE /TVET institutions	Number of new courses and trades in PE /TVET sector		TBD	TBD	TBD	TBD	TDB
		Increase in student/trainee intake in PE /TVET	Number of student /trainee spaces additionally created		TBD	TBD	TBD	TBD	TBD
	PE.1.2. Introduce PE courses in alternative, flexible mode (evening classes, flexible time-frame for completion etc.)	Increase in access to PE /TVET courses through alternative and flexible models of provision	Number of students/ trainee attending PE/TVET courses/trades through alternative, flexible models		TBD	TBD	TBD	TBD	TBD
Reconstruct/ repair/ rehabilitate HE infrastructure	**PE.1.3.** Renovate/repair/ rehabilitate PE/TVET infrastructure	PE /TVET institutional infrastructure and facilities are upgraded	Number of PE/TVET institutions renovated/repaired/ rehabilitated		TBD	TBD	TBD	TBD	TBD

Table 51. Detailed Activities and timeline for Education sub-sector: Professional Education (Technical and Vocational Education & Training (TVET) Strategic Area 2. Safe, enabling environments in PE/ TVET institutions for training									
					Years of Implementation				
Objectives	**Activities**	**Outputs**	**Output Indicators**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Strengthening PE/ TVET institutional facilities to ensure physical safety of the places	**PE.2.1.** Construct/ repair PE/ TVET facilities to ensure physical standards are met	PE/ TVET institutions meet all safety standards	Number of PE/ TVET institutions meeting the physical/building and equipment safety standards		TBD	TBD	TBD	TBD	TBD
Strengthen Disaster Risk Reduction and Emergency preparedness of PE/ TVET institutions	**PE.2.2.** Equip physical environment of PE/ TVET institutions for DRR & EP	PE/ TVET institutions are prepared for managing disaster risks and emergencies	▪ PE/ TVET institutions with an emergency evacuation facility /alternative door ▪ PE/ TVET institutions with fire extinguisher ▪ PE/ TVET institutions where an emergency preparedness simulation exercise is carried out at least once a year		TBD	TBD	TBD	TBD	TBD
Strengthening institutional policies and practices to ensure safe behaviour in PE/ TVET institutions	**PE.2.3.** Review and revise PE/ TVET institutional policies and redressal mechanisms related to abuse (including sexual/gender harassment), crime and violence among PE/ TVET trainees	PE/ TVET institutions have clear policies and mechanisms to address any form of violence, including gender/sex based harassments and abuse.	Number of PE/ TVET institutions having clear policies and mechanisms to address any form of violence, including gender/sex based harassments and abuse.		TBD	TBD	TBD	TBD	TBD
		Advocacy measures are in place to sensitize PE/ TVET students on the institutional policies and mechanisms regarding violence and abuse, including gender based violence	Number of PE/ TVET institutions that have carried out advocacy/outreach activities to sensitize PE/ TVET students on the institutional policies and mechanisms regarding violence and abuse, including gender based violence		TBD	TBD	TBD	TBD	TBD

Table 52. Detailed Activities and timeline for Education sub-sector: Professional Education (Technical and Vocational Education & Training (TVET) Strategic Area 3. Curriculum and Assessment									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Development of a National Qualification Framework, revision of National Occupational Classifications (NOC) and development of National Occupational Standards (NOS)	**PE.3.1.** Develop and endorse a National Qualification Framework (NQF) for PE/ TVET	National Qualification Framework for PE/ TVET	Availability of a National Qualification Framework for PE/ TVET	No	Yes	Yes	Yes	Yes	Yes
	PE.3.2. Improve the National Occupational Classification based on NQF for PE/ TVET	Revised National Occupational Classification	Availability of National Occupational Classification based on NQF for PE/ TVET	No	Yes	Yes	Yes	Yes	Yes
	PE.3.3. Develop occupational standards profession wise based on National Occupational Classifications	Occupational standards for each profession based on National Occupational Classifications developed	Availability of Occupational standards for each profession based on National Occupational Classifications	No	Yes	Yes	Yes	Yes	Yes
Enhance the PE/ TVET curriculum based National Qualification Framework	**PE.3.4.** Analysis of: (i) PE/ TVET skill gaps & needs; (ii) training provision; (iii) scenario planning; and (iv) development of sectoral programmes and interventions by Sector Skills Councils	PE/ TVET skill gaps & needs; training provision; scenario planning and sectoral programmes and interventions are developed by Sector Skills Councils	Availability of the analysis of: (i) PE/ TVET skill gaps & needs; (ii) training provision; (iii) scenario planning; and (iv) Sectoral programmes and interventions	No	Yes	Yes	Yes	Yes	Yes
	PE.3.5. Develop/ revise PE/ TVET curricula based on National Occupational Standards	PE/ TVET curricula is revised based on NQF and National Occupational Standards	Availability of the revised curricula for PE/ TVET	No	Yes	Yes	Yes	Yes	Yes
Enhance the PE/ TVET assessment and certification mechanisms	**PE.3.6.** Develop new/revise assessment and certification mechanism for PE/ TVET programmes	Assessment and certification mechanism for PE/ TVET programmes revised	Availability of revised assessment and certification mechanism and processes in PE/ TVET	No	Yes	Yes	Yes	Yes	Yes
Enhance the on-site training component of PE/ TVET programmes	**PE.3.7.** Review practical content of PE/ TVET programmes and enhance the practical content based on NQF, NOC and NOS	Review report on the practical content of PE/ TVET programme	Availability of Review report on the practical content of PE/ TVET programme	No	Yes	Yes	Yes	Yes	Yes
		Revised standards for practical content in PE/ TVET programmes based on NQF, NOC and NOS	Revised standards for practical content in PE/ TVET programmes based on NQF, NOC and NOS	No	Yes	Yes	Yes	Yes	Yes
A study on the adaptation of the PE curriculum and labour market requirements (this indicator is common for grades 10-11 of GSE sector as well)	**PE.3.8.** Commission a study on the adaptation of Secondary Specialized Education curriculum and labour market requirements	Better understanding of the relevance of new specialized secondary education curriculum to labor market requirements	Availability of the Report of the study	No	Yes	Yes	Yes	Yes	Yes

Table 53. Detailed Activities and timeline for Education sub-sector: Professional Education (Technical and Vocational Education & Training (TVET) Strategic Area 4. Teaching Learning materials & Technology, including ICT as a pedagogical Tool					Years of Implementation				
Objectives	**Activities**	**Outputs**	**Output Indicators**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Enhance /Upgrade the teaching-learning materials/ resources at TEVET institutions based on NQF, NOC and NOS	**PE.4.1.** Develop print and equipment resources based on the revised PE/ TVET curricula	Teaching learning resources for PE/ TVET defined	Number of printed and physical materials produced		TBD	TBD	TBD	TBD	TBD
	PE.4.2. Production and distribution of revised printed and physical materials in adequate numbers to PE/ TVET institutions	Teaching learning resources for PE/ TVET made available in PE/ TVET institutions	Number of PE/ TVET institutions equipped with: • Trade specific workshops • Trade specific equipment • Subject specific laboratories		TBD	TBD	TBD	TBD	TBD
			Number of PE/ TVET institutions in receipt of full package of teaching learning resources		TBD	TBD	TBD	TBD	TBD
Enhance PE/ TVET courses offered through innovative online resources	**PE.4.3.** Upgrade ICT facilities in PE/ TVET institutions and provide online teaching resources	All PE/ TVET institutions are equipped with state-of-the art ICT facilities to ensure online support to students/trainees	Number of PE/ TVET institutions equipped with state-of-the art ICT facilities		TBD	TBD	TBD	TBD	TBD

Table 54. Detailed Activities and timeline for Education sub-sector: Professional Education (Technical and Vocational Education & Training (TVET) Strategic Area 5. PE/ TVET Workforce Development					Years of Implementation				
Objectives	**Activities**	**Outputs**	**Output Indicators**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Enhance the quantity and quality of PE/ TVET faculty and staff	**PE.5.1.** Appoint adequate number of faculty and other staff in PE/ TVET institutions	PE/ TVET institutions have sufficient number of required faculty and staff	Number of faculties and other staff in PE/ TVET institutions by trade / subject		TBD	TBD	TBD	TBD	TBD
Improve PE/ TVET aff remunerations	**PE.5.2.** Increase Staff salaries in a gradual manner	Staff salaries are increased (overall) from 2017 base salaries	% increase in staff salaries (overall) from 2017 base salaries		10%	10%	TBD	TBD	TBD
Training of PE/ TVET faculty	**PE.5.3.** Provide PE/ TVET faculties opportunities for training	Proportion of PE/ TVET faculties trained in their trade area through industry placement, organized training and study visits abroad	Number of PE/ TVET faculties who have received some form of in-service training		TBD	TBD	TBD	TBD	TBD
PE/ TVET faculty is trained in using ICT extensively as a pedagogic tool	**PE.5.4.** Equip PE/ TVET institutions for state-of the art ICT facilities	PE/ TVET institutions are enhanced with state-of-the art ICT system	Number of PE/ TVET institutions enhanced with state-of-the art ICT system		TBD	TBD	TBD	TBD	TBD
		ICT programmes /software are developed to enhance computer/ ICT-enabled training in PE/ TVET institutions	Number ICT programmes /software developed to enhance computer/ ICT-enabled training in PE/ TVET institutions		TBD	TBD	TBD	TBD	TBD
	PE.5.5. Provide training to PE/ TVET faculties in using ICT extensively as a teaching learning tool	PE/ TVET faculty trained in the use of ICT for vocational training	Number of PE/ TVET faculties trained in the wider use of ICT for vocational training		TBD	TBD	TBD	TBD	TBD

Table 55. Detailed Activities and timeline for Education sub-sector: Professional Education (Technical and Vocational Education & Training (TVET) Strategic Area 6. Systemic Reforms and Management									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Capacity building for managing PE/ TVET at the Ministry of Employment, MOHSSE, SISEQ, at all levels	**PE.6.1.** Harmonize all legal and policy documents	Consolidated policy documents	Availability of a Consolidated policy document	No	Yes	Yes	Yes	Yes	Yes
	PE.6.1. Training of staff at MOE, MOHSSE, SISEQ for management of PE/ TVET programmes in their respective areas / sections	Staff at MOE, MOHSSE, SISEQ received training for management of PE/ TVET programmes in their respective areas / sections	Number of staff at MOE, MOHSSE, SISEQ who received training for management of PE/ TVET programmes in their respective areas / sections		20%	30%	40%	50%	60%
	PE.6.2. Training of Regional staff in various aspects of PE/ TVET management	Staff at regional levels trained for management of PE/ TVET programmes in their respective areas / sections	Number of Staff at regional levels trained for management of PE/ TVET programmes in their respective areas / sections		20%	30%	40%	50%	60%

Table 56. Detailed Activities and timeline for Education sub-sector: Professional Education (Technical and Vocational Education & Training (TVET) Strategic Area 7. Knowledge Management & M&E									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Establishing and Strengthening PE/ TVET Management System (MIS) and harmonizing the system with other education subsector EMIS to have an integrated EMIS	**PE.7.1.** Establishing a legal framework for a comprehensive EMIS	A decree by President providing legal status to the EMIS	Decree of the President providing legal status to the EMIS	No	Yes	Yes	Yes	Yes	Yes
	PE.7.2. Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS	PE/ TVET MIS is harmonized with an integrated EMIS	PE/ TVET MIS is part of the integrated EMIS	No	Yes	Yes	Yes	Yes	Yes
	PE.7.3. EMIS data collection tools and guidelines developed and finalized	EMIS data collection forms (DCF) and guidelines finalized	EMIS DCF and guidelines available to all PE/ TVET Institutions	No	Yes	Yes	Yes	Yes	Yes
	PE.7.4. Create a web-based GS EMIS with all up-to-date technology specifications	School based data collection is enabled by a web-based EMIS data collection /compilation system	A web-based EMIS data collection /compilation system is developed	No	Yes	Yes	Yes	Yes	Yes
	PE.7.5. Equip PE/ TVET institutions with the new EMIS system	All PE/ TVET institutions are equipped with technological materials for EMIS	Number of PE/ TVET institutions with EMIS system installed		30%	40%	50%	80%	100%
Capacity building of staff at various levels for collecting/ compiling PE/ TVET	**PE.7.6.**Training of staff at various levels for collecting and entering data onto paper based tools and web-portal	Staff at MOE/MOHSSE – EMIS unit knowledgeable about EMIS	Number of staff at MOE/MOHSSE – trained in various aspects of EMIS		20%	50%	70%	80%	100%
		Regional EMIS department staff knowledgeable about data collection and compilation in EMIS	Number of staff at regional PE/ TVET department who is trained in collecting and entering EMIS data		20%	50%	70%	80%	100%

Table 56. Detailed Activities and timeline for Education sub-sector: Professional Education (Technical and Vocational Education & Training (TVET) Strategic Area 7. Knowledge Management & M&E									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
information on various indicators		District EMIS department staff knowledgeable about data collection and compilation in EMIS	Number of staff at district PE/ TVET department who is trained in collecting and entering EMIS data		20%	50%	70%	80%	100%
		PE/ TVET institutional staff knowledgeable on entering data into EMIS portal/DCF	Number of PE/ TVET staff who are trained in compiling and entering data into EMIS portal/DCF		20%	50%	70%	80%	100%
Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**PE.7.7.** Training of staff at various levels for analyzing and reporting EMIS statistics	MOE/MOHSSE -Statistics unit staff knowledgeable in using EMIS data and produce analytical reports	Number of staff at MOE/MOHSSE - Statistics unit who is trained in using EMIS data and produce analytical reports		20%	50%	70%	80%	100%
		Regional PE/ TVET Department staff knowledgeable in using EMIS data and producing analytical reports	Number of staff at Regional PE/ TVET Department who is trained in using EMIS data and producing analytical reports		20%	50%	70%	80%	100%
Strengthening the dissemination and use of EMIS analysis	**PE.7.8.** Produce PE/ TVET EMIS analytical reports and publish it for larger audience	PE/ TVET EMIS statistics and analytical report prepared and disseminated	At least one analytical report using PE/ TVET EMIS data published on MOE/MOHSSE EMIS portal			Yes	Yes	Yes	Yes
Strengthening research & evaluation of GS education sector	**PE.7.9.** Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of PE/ TVET	MOE/MOHSSE and SISEQ support research to understand sectoral status, progress and challenges	Number of studies commissioned by MOPSE /SISEQ to National Universities/ research institutions			1		1	
		MOE/MOHSE and SISEQ supported by DPs in research to understand sectoral status, progress and challenges	Number of studies commissioned by multi-lateral /bilateral development institutions in agreement with MOE		1		1		1

5.5.4 Higher Education (HE)

Table 57. Detailed Activities and timeline for Education sub-sector: Higher Education Strategic Area 1. Strengthen /Improve Higher Education provision and infrastructure									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Expand access to Higher Education by introducing new courses and more spaces in HE institutions	**HE.1.1.** Introduce new HE courses	New HE courses (at Bachelors level) are introduced in HE institutions	Number of new HE courses (at Bachelors level) introduced		TBD	TBD	TBD	TBD	TBD
		Increase in student/trainee intake in HE institutions through new courses	Number of students' seats additionally created		5%	5%	5%	5%	5%
			Number of students enrolled in new courses		5%	5%	5%	5%	5%
	HE.1.2. Increase the number of seats in existing courses	Increase in the number of student seats in HE institutions	Number of students enrolled additionally in existing courses		3%	3%	3%	3%	3%
Increase availability of good quality HE spaces	**HE.1.3.** Reconstruct/ repair/ rehabilitate HE infrastructure	HE institutional infrastructure and facilities are upgraded	Number of HE institutions renovated/repaired/ rehabilitated		TBD	TBD	TBD	TBD	TBD
Engage more private and foreign universities in higher education	**HE.1.4.** Establish / strengthen strategies to engage more private and foreign universities in higher education	A strategy to increase engagement with private and reputed foreign universities developed	Availability of a strategy to engage reputed foreign and private universities.	No	Yes	Yes	Yes	Yes	Yes
Expand access to higher education in line with the rising quotas by simultaneously raising the quality of higher education	**HE.1.5.** Systematically increase quotas in HE, at the same time, reform entrance exams for students **HE.1.6.** Review and reform the expulsion policies related to performance before the final year of the HE courses	National tests for admitting students to higher education courses revised	Students admitted to HE based on a revised national entrance test format			100%	100%	100%	100%
		HE expulsion policies reviewed and revised	Availability of a policy regarding the expulsion of students in higher education	No	Yes	Yes	Yes	Yes	Yes
Expand access to distance education, beyond the existing admission quota	**HE.1.7.** Introduce /reform distance education mechanism Explore possibilities of introducing Massive Online Open Courses (MOOC)	MOOC introduced	Number of MOOC courses available		TBD	TBD	TBD	TBD	TBD
			Number of students availing MOOC courses		TBD	TBD	TBD	TBD	TBD

Table 58. Detailed Activities and timeline for Education sub-sector: Higher Education Strategic Area 2. Safe, enabling environments in HE institutions									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Strengthening HE institutional facilities to ensure physical safety of the places	**HE.2.1.** Construct/ repair HE facilities to ensure physical standards are met	HE institutions meet all safety standards	Number of HE institutions meeting the physical/building and equipment safety standards		TBD	TBD	TBD	TBD	TBD
Strengthen Disaster Risk Reduction and Emergency preparedness of HE institutions	**HE.2.2.** Equip physical environment of HE institutions for DRR & EP	HE institutions are prepared for managing disaster risks and emergencies	▪ Number of HE institutions with an emergency evacuation facility /alternative door ▪ Number of HE institutions with adequate number of fire extinguisher ▪ HE institutions where an emergency preparedness simulation exercise is carried out at least once a year		TBD	TBD	TBD	TBD	TBD
Strengthening institutional policies and practices to ensure safe behaviour in HE institutions	**HE.2.3.** Review and revise HE institutional policies and redressal mechanisms related to abuse (including sexual/gender harassment), crime and violence among HE trainees	HE institutions have clear policies and mechanisms to address any form of violence, including gender/sex based harassments and abuse.	Number of HE institutions having clear policies and mechanisms to address any form of violence, including gender/sex based harassments and abuse.		100%	100%	100%	100%	100%
		Advocacy measures are in place to sensitize HE students on the institutional policies and mechanisms regarding violence and abuse, including gender based violence	Number of HE institutions that have carried out advocacy/outreach activities to sensitize HE students on the institutional policies and mechanisms regarding violence and abuse, including gender based violence		100%	100%	100%	100%	100%

Table 59. Detailed Activities and timeline for Education sub-sector: Higher Education Strategic Area 3. Curriculum and Assessment									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Development of a National HE Qualification Framework	**HE.3.1.** Develop and endorse a National Qualification Framework (NQF) for HE	National Qualification Framework for HE	Availability of a National Qualification Framework for HE	No	Yes	Yes	Yes	Yes	Yes
Enhance the HE curriculum based National Qualification Framework	**HE.3.2.** Develop/ revise HE curricula based on National Qualifications Framework	HE curricula revised	Availability of the revised curricula for HE	No	Yes	Yes	Yes	Yes	Yes
Enhance the HE assessment and certification mechanisms	**HE.3.3.** Develop new/revise assessment and certification mechanism for HE programmes	Assessment and certification mechanism for HE programmes revised	Availability of revised assessment and certification mechanism and processes in HE	No	Yes	Yes	Yes	Yes	Yes
Enhance the on-site training component of HE programmes	**HE.3.4.** Review practical content of HE programmes	Revised standards for practical content in HE programmes	Revised standards for practical content in HE programmes	No	Yes	Yes	Yes	Yes	Yes

Table 60. Detailed Activities and timeline for Education sub-sector: Higher Education Strategic Area 4. Teaching Learning materials & Technology, including wider use of ICT as a pedagogical Tool									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Enhance /Upgrade the teaching-learning materials/ resources at HE institutions based on NQF and curriculum	**HE.4.1.** Develop print and equipment resources based on the revised HE curricula	Teaching learning resources for HE defined	Number of printed and physical materials produced		TBD	TBD	TBD	TBD	TBD
	HE.4.2. Production and distribution of revised printed and physical materials in adequate numbers to HE institutions	Teaching learning resources for HE made available in HE institutions	Number of HE institutions equipped with: • Subject Specific workshops • Subject Specific equipment • Subject specific laboratories		TBD	TBD	TBD	TBD	TBD
			Number of HE institutions in receipt of full package of teaching learning resources		TBD	TBD	TBD	TBD	TBD
Enhance HE courses offered through innovative online resources	**HE.4.3.** Upgrade ICT facilities in HE institutions and provide online teaching resources	All HE institutions are equipped with state-of-the art ICT facilities to ensure online support to students/trainees	Number of HE institutions equipped with state-of-the art ICT facilities		TBD	TBD	TBD	TBD	TBD
Impart courses through online platforms	**HE.4.4.** Create massive open online Courses (MOOC) for youth to enroll and learn in a distance mode	HE courses are offered through MOOC	Number of students enrolled in MOOC		TBD	TBD	TBD	TBD	TBD

Table 61. Detailed Activities and timeline for Education sub-sector: Higher Education Strategic Area 5. HE Faculty and staff workforce development									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Enhance the quantity and quality of HE faculty and staff	**HE.5.1.** Appoint adequate number of faculty and other staff in HE institutions	HE institutions have sufficient number of required faculty and staff	Number of faculties and other staff in HE institutions by trade / subject		TBD	TBD	TBD	TBD	TBD
Improve HE faculty & staff remunerations	**HE.5.2.** Increase Staff salaries in a gradual manner	Staff salaries are increased (overall) from 2017 base salaries	% increase in staff salaries (overall) from 2017 base salaries		10%	10%	10%		
Training of HE faculty	**HE.5.3.** Provide HE faculties opportunities for training and research	Proportion of HE faculties trained in their trade area through industry placement, organized training and study visits abroad	Number of HE faculties who have received some form of in-service training						
HE faculty is trained in using ICT as a pedagogic tool	**HE.5.4.** Provide training to HE faculties in using ICT as a teaching learning tool	HE institutions are enhanced with state-of-the art ICT system	Number of HE institutions enhanced with state-of-the art ICT system		TBD	TBD	TBD	TBD	TBD
		ICT programmes /software are developed to enhance computer/ ICT-enabled training in HE institutions	Number ICT programmes /software developed to enhance computer/ ICT-enabled training in HE institutions		TBD	TBD	TBD	TBD	TBD
	HE.5.5. Train HE faculty in the use of ICT for teaching and research	HE faculty trained in the use of ICT for vocational training	Number of HE faculties trained in the use of ICT for vocational training		TBD	TBD	TBD	TBD	TBD

Table 62. Detailed Activities and timeline for Education sub-sector: Higher Education Strategic Area 6. Systemic Reforms and Management									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Capacity building for managing HE at the Ministry of Employment, MOHSSE, SISEQ, at all levels	**HE.6.1.** Training of staff at MOE, MOHSSE, SISEQ for management of HE programmes in their respective areas / sections	Staff at MOE, MOHSSE, SISEQ received training for management of HE programmes in their respective areas / sections	Number of staff at MOE, MOHSSE, SISEQ who received training for management of HE programmes in their respective areas / sections		20%	20%	20%	20%	20%
	HE.6.2. Training of Regional staff in various aspects of HE management	Staff at regional levels trained for management of HE programmes in their respective areas / sections	Number of Staff at regional levels trained for management of HE programmes in their respective areas / sections		20%	20%	20%	20%	20%

Table 63 Detailed Activities and timeline for Education sub-sector: Higher Education Strategic Area 7. Knowledge Management & M&E									
Objectives	**Activities**	**Outputs**	**Output Indicators**		**Years of Implementation**				
				2018	**2019**	**2020**	**2021**	**2022**	**2023**
Establishing and Strengthening HE Management System (MIS) and harmonizing the system with other education subsector EMIS to have an integrated EMIS	**HE.7.1.** Establishing a legal framework for a comprehensive EMIS	A decree by President providing legal status to the EMIS	Decree of the President providing legal status to the EMIS	No	Yes	Yes	Yes	Yes	Yes
	HE.7.2. Coordinating with other sub-sectoral EMIS systems to create an integrated EMIS	HE MIS is harmonized with an integrated EMIS	HE MIS is part of the integrated EMIS			Yes	Yes	Yes	Yes
	HE.7.3. EMIS data collection tools and guidelines developed and finalized	EMIS data collection forms (DCF) and guidelines finalized	EMIS DCF and guidelines available to all HE Institutions		Yes	Yes	Yes	Yes	Yes
	HE.7.4. Create a web-based HEMIS with all up-to-date technology specifications	School based data collection is enabled by a web-based EMIS data collection /compilation system	A web-based EMIS data collection /compilation system is developed		Yes	Yes	Yes	Yes	Yes
	HE.7.5. Equip HE institutions with the new EMIS system	All HE institutions are equipped with necessary technological materials for EMIS	Number of HE institutions with EMIS system installed		50%	70%	100%	100%	100%
Capacity building of staff at various levels for collecting/ compiling HE information on various indicators	**HE.7.6.** Training of staff at various levels for collecting and entering data onto paper based tools and web-portal	Staff at MOHSSE – EMIS unit knowledgeable about various aspects of data collection and compilation of EMIS	Number of staff at MOHSSE – EMIS unit trained in various aspects of data collection and complilation of EMIS		50%	70%	100%	100%	100%
Capacity building of staff at various levels for analyzing and producing reports on EMIS statistics	**HE.7.7.** Training of staff at various levels for analyzing and reporting EMIS statistics	Staff at MOHSSE-EMIS Unit and at various levels are know how to analyze and report the statistics	Number of staff at MOHSSE-EMIS trained in data analysis using EMIS data		50%	70%	100%	100%	100%
Strengthening the dissemination and use of EMIS analysis	**HE.7.8.** Produce HE EMIS analytical reports and publish it for larger audience	MOHSSE publishes analytical reports using HE EMIS data on their website	Availability of HEMIS analytical report on MOHSSE website			Yes	Yes	Yes	Yes
Strengthening research & evaluation of HE sector	**HE.7.9.** Commissioning specific studies /reviews/ evaluations to generate evidence on various aspects of HE	MOHSSE identifies specfic issues and in collaboration with the universities commission studies/ research	Number of studies/ research projects commissioned by MOHSSE in collaboration with Universities, private sector and international agencies		1	1	1	1	1

6 Monitoring and Evaluation of the ESP

6.1 Purpose of Monitoring and Evaluation

Monitoring and Evaluation (M&E) is a prerequisite for successful implementation of the ESP. The key objective of M&E is to provide assistance in managing the implementation of programmes related to the key strategic areas, described in Section 4.3, in order **to provide overall quality assurance**. As an administrative tool, M&E system monitors all key indicators, outputs and outcomes, as well as resources involved in ESP implementation.

Monitoring will allow a proper coordination of activities of the implementing agents on achieving the strategic goals. The results of M&E will enable stakeholders to know:

- whether the activities that constitute the Plan of Action of the ESP were implemented (see Chapter 5);
- whether the intended ESP outcomes were being realised in consequence;
- whether there are any discrepancies between the expected and actual results.

M&E will thus assist in identifying the problems that need to be solved, at such an early stage that problems can still be corrected before it is too late. The M&E framework is therefore to be regarded as a practical tool which will provide an early warning system should certain indicators be in danger of not being achieved. It will allow the implementing parties of the ESP to study the possible causes of the discrepancy and to change the direction of interventions in good time, before discovering unsatisfactory outcomes.

As a management tool, the M&E framework tracks all the key operational and resource metrics involved in accomplishing the ESP. It is part of the normal feedback process from implementing a plan which then provides a basis for debate around performance on how to improve it and hence forms a basis for future planning and strategy development.

The Government guarantees transparency and wide dissemination of information on the monitoring of the ESP. The civil society and the mass media, including the open and public websites will be used for disseminating the information to all interested parties. It will allow assessing the perception of citizens in regard to efficiency of the activities, implemented within the ESP.

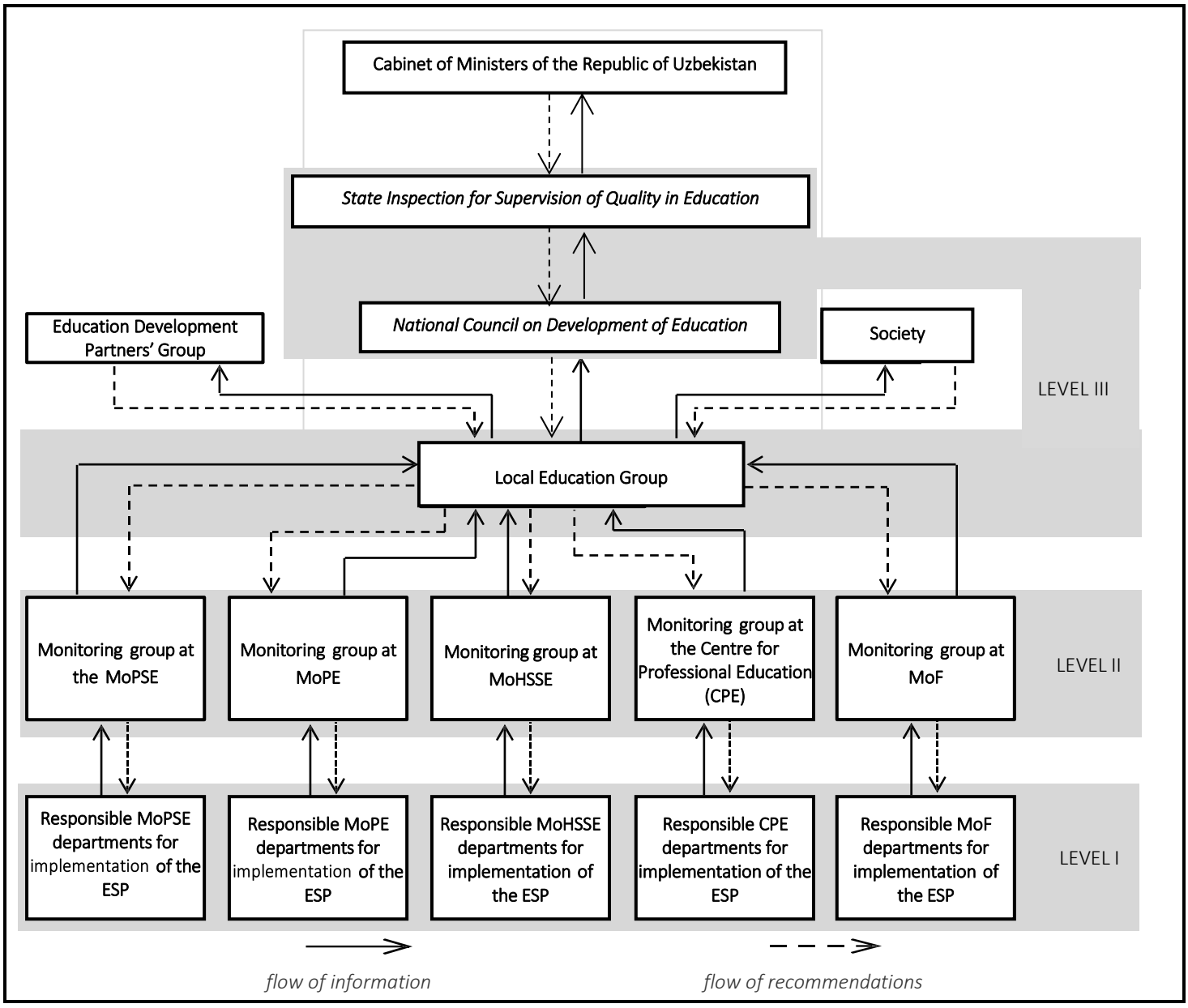
6.2 Monitoring and evaluation system

The system of monitoring and evaluation of the ESP is based on the methodology of the progress tracing and evaluation of achievements used in the 1st ESP, which was also utilised in the M&E of the National Programme for Personnel Training.

A system of regular collection and analysis of data will be maintained within the framework of the complex monitoring and evaluation of the implementation of the 2nd ESP. The data in the system will indicate the levels of achieving the strategic goals and target indicators, described in Chapter 5. The monitoring envisages the tracing of indicators, while analysing the results and their impact on development of the education sector as a whole. The monitoring and evaluation of the ESP will be based on data provided by the three implementing educational ministries, and will also include qualitative surveys as indicated in the Action Plan.

The monitoring services under the ministries, regional and district (city) departments for education, as well as the local group for planning the development strategy serve as the basis for building a complex M&E system for the period of 2019-2023. At the micro level (i.e. on the level of activities), the monitoring reflects whether all types of actions have been conducted as described in the plan, or if there is a need for assistance or intervention. At the macro level (i.e. at the level of the Programmes), the monitoring will reveal how the whole strategy is being implemented, if resources and funds are being used in accordance with the plan, and whether the results meet the expectations.

Chart/Figure 62: Monitoring Structure for ESP



A three-level monitoring and evaluation system will be established for tracking and analysing the process of ESP implementation, comprising

- Level I: Internal Monitoring at regular short-term intervals;
- Level II: Internal Monitoring at regular medium-term intervals (building upon Level I monitoring); and
- Level III: External Monitoring.

Table 64. Three-level monitoring and evaluation system
Level I – Internal Monitoring at regular short-term intervals
• Sub-sectoral departments of responsible agents for the ESP implementation (in line with the responsibilities shown in Section 5.1) conduct regular monitoring of implementation of the tasks • Sub-sectoral departments provide the monitoring department (sector or group) at the relevant ministry the information about the achieved results on each activity on a monthly basis
Level II – Internal Monitoring at regular medium-term intervals
• Specialists of the monitoring department (sector or group) at the relevant ministry summarise and analyse the information on the ESP implementation process on a regular basis • The Local Education Group is provided with (semi-annual or annual) analytical reports on the results of monitoring and evaluation of the ESP.
Level III – External Monitoring
• The Local Education Group prepares a report on the ESP implementation process, which includes an analysis of achievements of indicators and related targets, together with recommendations on further development of the planned activities • The report is submitted to the *National Council on Development of Education* and the *State Inspection for Supervision of Quality in Education* under the Cabinet of Ministers of the Republic of Uzbekistan • The society is provided with full access to information about the progress and efficiency of ESP implementation.

6.3 Key Performance Indicators (KPIs)

As shown on the Action Plan (Chapter 5), a considerable number of indicators have been formulated for tracking the timely progress of implementation of various programme activities. the various Programmes. However, these indicators mainly represent programme implementation indicators and not the most significant output and outcome indicators for each sub-sectors. A list of Key Performance Indicators (KPIs) have been identified for each sub-sector following a results framework which are summarised in this Section.

The system of indicators has two levels, i.e. output and outcome (or impact) indicators. Output indicators provide a sign about how well activities (strategies) are going. They are about measuring what has been done. Outcome indicators provide a sign of how well the programme has achieved intended changes as a result of the intervention. They are about measuring change and ultimately relate to the overall goal.

KPIs focuses on a set of indicators at a higher level that reflect strategic progress in the system of continuing education as whole. The tables below show the KPIs that will be monitored, their baselines (2017/18) and targets (2021/22) together with their respective Means of Verification (MoV) and the overall monitoring arrangements (level and frequency of monitoring). All indicators will be disaggregated by gender and special needs where applicable.

6.3.1 SDG Indicators as KPIs

Before the sector specific full-list of KPIs is presented, the absolute, non-negotiable KPIs based on SDGs adopted as Country specific goals are presented below, as per the ESP policy goals. These are also listed under the KPI tables.

Table 65. SDG Indicators for Policy Goal 1: Improve equitable access to and participation in education at all levels

Education Sub-sectors	**SDGs related to the policy goal**	**Country specific Outputs/ Outcomes for 2023**	**Outcome Indicators for the period 2018-2023**
Preschool Education	SDG 4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education SDG 4.5. By 2030, eliminate gender disparities in education and ensure equal access to all levels of education for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	• Overall improvement in the participation rates of children 3-6 years in preschool education • Ensure universal, free and compulsory one-year preschool school (one year before the official primary entry age) education for 5/6 years old children • Ensure participation of children from remote rural areas, children with disabilities and special needs in preschool education • Upgrading preschool facilities to ensure safe and	SDG 4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex SDG 4.5.1 Parity indices in enrollments by sex, rural/urban, level of well-being, and disability status SDG 4.5.3 (national adaptation by Government of Uzbekistan): Proportion of children with disabilities who are enrolled in preschool, among all children in this category SDG 4.a. Upgraded education facilities providing safe and effective learning environments for all

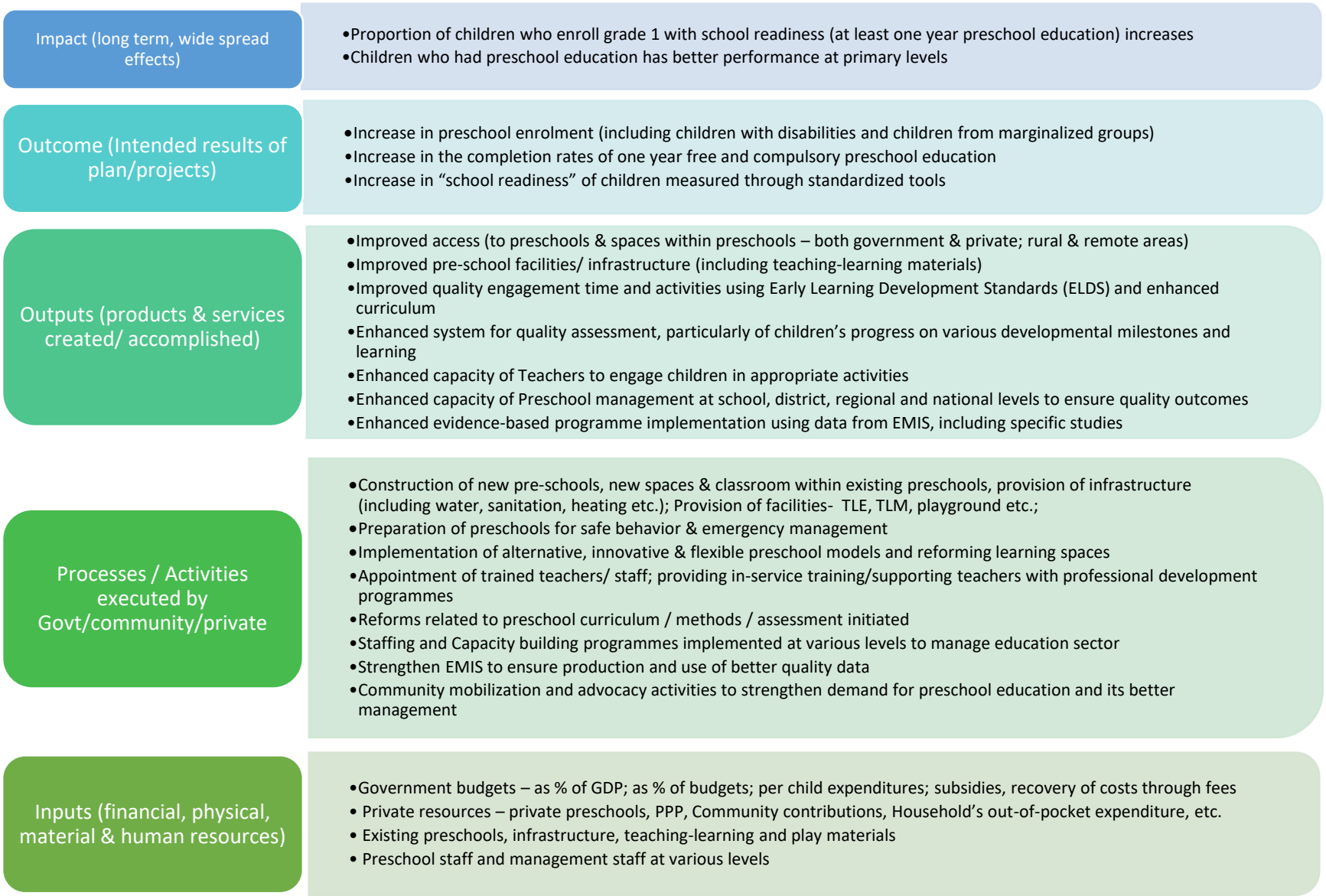
		effective learning environments for young children	
General Secondary Education	SDG 4.1: **By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education** leading to relevant and effective learning outcomes SDG 4.5. By 2030, eliminate gender disparities in education and ensure equal access to all levels of education for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	• Maintain high levels of general secondary enrollments (primary and secondary) • Maintain gender parity • More children with disabilities and special needs attend mainstream schools • Upgrading General secondary school facilities to ensure safe and effective learning environments for children.	SDG 4.5.1 Parity indices in enrollments by sex, rural/urban, level of well-being, and disability status SDG 4.5.3 (national adaptation by Government of Uzbekistan): Proportion of children with disabilities who are enrolled in GS school, among all children in this category
TVET & Higher Education	SDG 4.3. By 2030, ensure equal access for all women and men to affordable and **quality technical, vocational** and tertiary education, including university SDG 4.5. By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	• ensure equal access for all women and men to affordable and high-quality secondary special, tertiary professional and vocational education • More youth and adults with disabilities and special needs attend TVET programmes • Upgrading TVET facilities to ensure safe and effective learning environments for youth and adults	SDG 4.3.1. Participation rate of youth and adults in TVET in the previous 12 months, by sex SDG 4.5.1 Parity indices in enrollments in TVET and HE by sex, rural/urban, level of well-being, and disability status SDG 4.5.3 (national adaptation by Government of Uzbekistan): Proportion of youth with disabilities who are enrolled in TVET/HE, among all youth in this category

Table 66: SDG Indicators for Policy Goal 2: Enhance the quality and relevance of education at all levels in order to improve learning outcomes and skills			
Education Sub-sectors	**SDGs related to the policy goal**	**Country specific End Outcomes for 2023**	**Outcome Indicators for the period 2018-2023**
Preschool Education	SDG 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	• More children entering primary grades have appropriate "school readiness." • Better parity in school readiness levels of both boys and girls, rural and urban, and for children with disabilities and secial needs	SDG 4.2.1 Proportion of children under 5 who are developmentally on track in health, learning and psycho-social well-being, by sex
General Secondary Education	SDG 4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to **relevant and effective learning outcomes**	• Learning levels of children in core subjects (Language and Mathematics) improves as measured by standardized national assessment surveys (NAS). • Better parity in Learning levels of both boys and girls, rural and urban, and for children with disabilities and secial needs	SDG 4.1.1. Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary grade 4); and (c) at the end of lower secondary (grade 9) achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex
TVET & Higher Education	SDG 4.4.: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	• Skill/ competency levels of youth and adult improves as measured by special skills survey	SDG 4.4.1.: Proportion of youth and adults with information and communications technology (ICT) skills, by type of skills

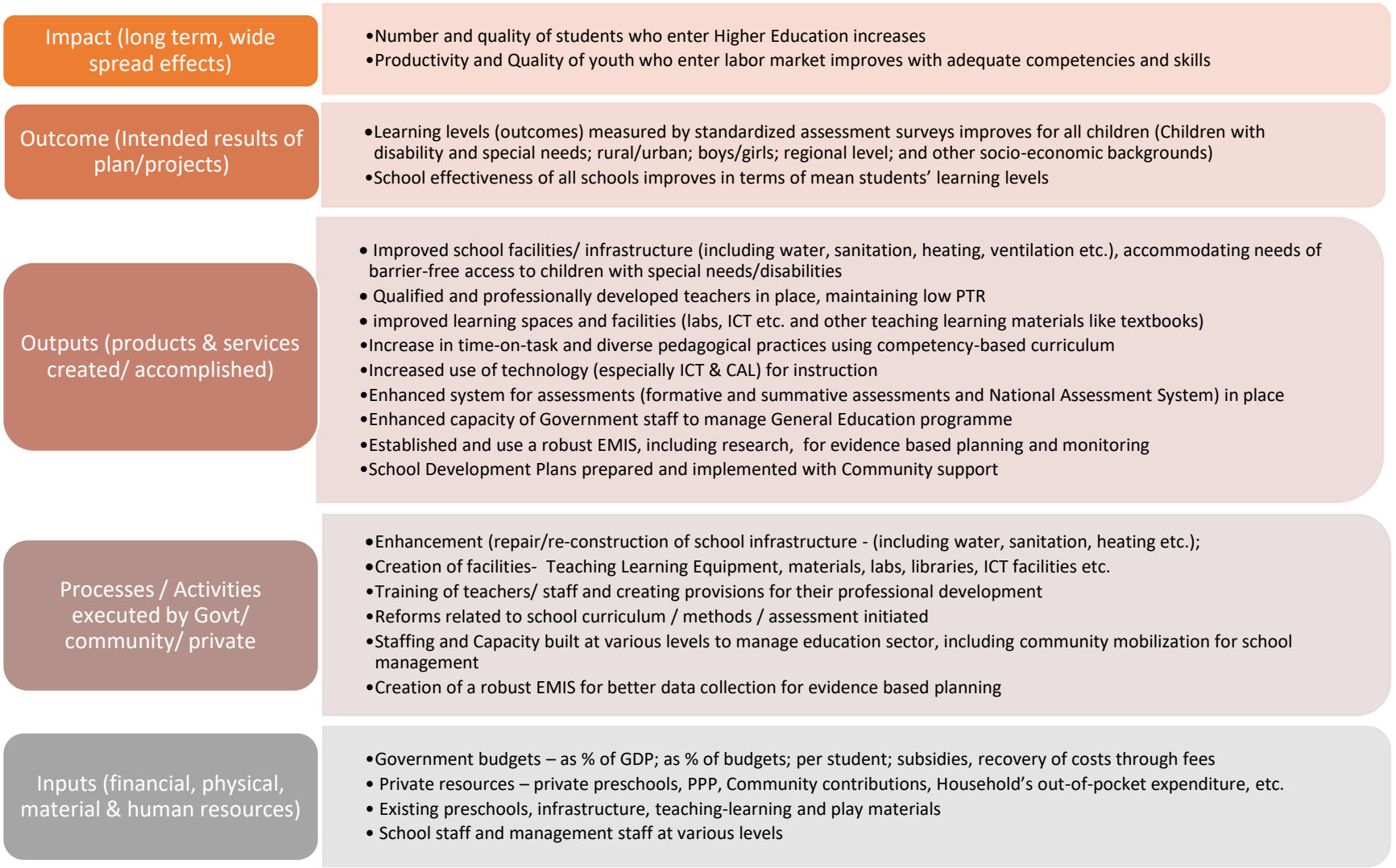
6.3.2 Result Framworks for sub-sectors

The broader logical framework for education sector follows resources to activities (construction, repair, renovation and refurbishing of education infrastructure and facilities, appointing and training of teachers/faculties, provision of teaching learning materials etc.), which results in education related intermediate outcomes or outputs (adequate number of education seats, facilities, qualified teachers, teaching -learning materials, and enrolment and retention of students), and finally the intended results/ outcomes (improved student learning and graduation). However, for better planning, in this ESP, the Key Performance Indicators (KPIs) are provided separately for each sub-sectors and hence, results framework is provided separately for each subsectors.

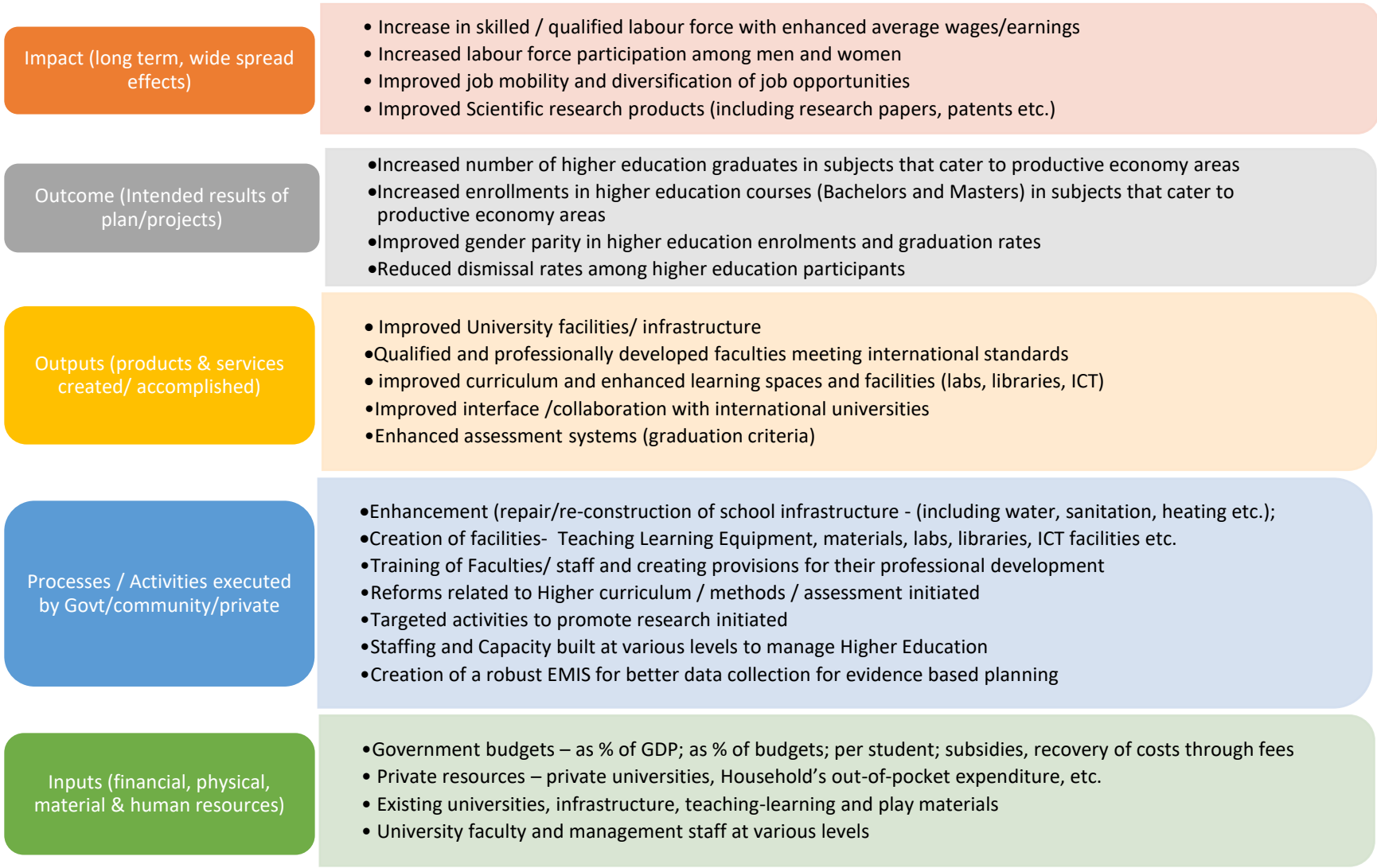
Chart/ Figure 63: Results Framework: Preschool Education



Chart/Figure 64: Results Framework: General Secondary Education



Chart/Figure 65: Results Framework: Professional Education /TVET & Higher Education



6.3.3 Preschool Education: KPIs

Table 67. Preschool Education: Outcome Indicators

Strategic area	End outcomes	Indicator	Type of indicator	Dis-aggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Expand access to preschool education for all children, especially for children in rural and remote areas, girls, lagging regions and children with disabilities and special needs	Improved access to quality preschool services for children aged 3-6/7 years in rural and remote areas; lagging regions, girls, and children with disabilities and special needs	• Gross Enrolment Ratio (GER) of 3-6 years children	Ratio	• Overall	Annual / yearly	EMIS; MOPSE	35.6%	40%	45%	50%	55%	60%
				• By gender			52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)
				• By rural/ urban			47% (R)/ 52.4% (U)	48%(R)/ 52%(U)	49%(R)/ 51%(U)	49%(R)/ 51%(U)	50%(R)/ 50%(U)	50%(R)/ 50%(U)
				• By regions			TBD	TBD	TBD	TBD	TBD	TBD
				• By disability			3.3%	3%	2.7%	2.5%	2.3%	2%
				• By public/ Private			98%/2%	97%/3%	96%/4%	95%/5%	94%/6%	93%/7%
		• Participation rate in organized learning at age 6 (one year before the official primary entry age) (country specific SDG indicator 4.2.2 for goal 4.2)		• Overall			28.5%	40%	65%	100%	100%	100%
				• By gender			52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)	52% (boys) 48% (girls)
				• By rural/ urban			47% (R)/ 52.4% (U)	48%(R)/ 52%(U)	49%(R)/ 51%(U)	49%(R)/ 51%(U)	50%(R)/ 50%(U)	50%(R)/ 50%(U)
				• By regions								
				• By disability			0.1%	0.2%	0.2%	0.3%	0.3%	0.3%
				• By public/ Private			99%/1%	97%/3%	96%/4%	95%/5%	95%/5%	95%/5%
		• Gender Parity Index (Country Specific SDG indicator 4.5.1 for goal 4.5)	Index	• Overall • By Rural/ Urban • By regions	annual	EMIS; MOPSE	100%	100%	100%	100%	100%	100%
		• Proportion of children enrolled in half-day models in total preschool enrollments	%	• Overall • By gender • By Rural/Urban • By regions	annual	EMIS; MOPSE	11,3%	11,8%	12,3%	12,8%	13,3%	13,8%
		• Number of groups applying alternative models						1220	1500	1700	2000	2420
		• Proportion of children enrolled in Alternative, innovative & flexible programme in total enrollments (other than the half-day models)	%				TBD	TBD	TBD	TBD	TBD	TBD

Strategic area	End outcomes	Indicator	Type of indicator	Dis-aggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
		• Proportion of children enrolled in private preschools (under Public Private Partnership scheme)	%				13,243	135,997	258,751	381,505	504,259	525,870
		• Proportion of CWD/CWSN integrated into regular preschools in total disabled/CWSN (Country specific SDG indicator 4.5.2 for goal 4.5)	%				0	0,2%	0,4%	0,6%	0,8%	1%
Improve preschool quality to better prepare children for primary school	Children enter grade 1 with at least one-year preschool experience and have better "school readiness"	• Proportion of children who enter grade 1 with at least one year of preschool education experience	%	• Overall • By gender • By Rural/Urban • By regions	annual	EMIS; MOPSE & MOPE	28.5%	40%	65%	100%	100%	100%
		• Proportion of children under 5 who are developmentally on track in health, learning and psychosocial well-being, by sex (Country specific SDG indicator 4.2.1 for goal 4.2)	%				98%	98%	98%	98%	98%	98%
		• Proportion of children who meet the benchmarks for "school readiness" in a standardized assessment using MELQO (Country specific SDG indicator related to 4.7.1 on assessment)	%		Alternative year	Specific study / Analysis	0	0	0	0	50%	50%

Table 68. Preschool Education: Intermediate Outcome /Output Indicators

Strategic area	Intermediate outcomes/ Outputs	Indicator	Type of indicator	Disaggre-gation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Expand access to preschool education for all children, especially for children in rural and remote areas, girls, lagging regions and children with disabilities and special needs	Improved physical facilities in preschool	• Children - Classroom Ratio	ratio	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS		1: 30	1: 25	1:20	1:20	1:20
		• Preschools with more than one shift	%				TBD					TBD
		• Preschools with boundary wall	%				TBD					80%
		• Preschools with adequate rooms for Early Learning Development related activities (as per state norms / standards)	%				TBD					80%
		• Preschools with drinking water facility (as per state norms/ standards) (Country specific SDG indicator 4.a.1 (e))	%				TBD	TBD	TBD	TBD	TBD	80%
		• Ratio of children to functional gender-specific toilets (as per state norms/ standards) (Country specific SDG indicator 4.a.1 (f))	%				1/14	1/14	1/12	1/12	1/10	1/8
		• Preschools with CWD/CWSN friendly toilet (as per state standards) (Country specific SDG indicator 4.a.1 (d))	%				0	0.1%	0.1%	0.15%	0.15%	0.20%
		• Preschools by WASH facility (water, functional toilets & hand wash) (Country specific SDG indicator 4.a.1 (g))	%				TBD					80%
		• Preschools with ramps (disable friendly) (Country specific SDG indicator 4.a.1 (d))	%				TBD					80%
		• Preschools with playground/play area	%				TBD					80%
		• Preschools with uninterrupted electricity supply at least 5 days a week (Country specific SDG indicator 4.a.1 (a))	%				TBD					80%
		• Preschools with heating facilities (during winter)	%				TBD					80%
		• Preschools with Kitchen for preparing meals for children	%				TBD					80%
		• Preschools with Separate room for dining	%				TBD					80%
		• Preschools with Indoor gym / sports room	%				TBD					80%
	Safe and conducive learning environment available in preschools	• Preschools with premises enclosed by fence / wall	%	• Overall • By rural/ urban • By regions	Annual	EMIS	TBD					80%
		• Preschools with an evacuation facility /alternative door	%				TBD					80%
		• Preschools with fire extinguisher	%				TBD					80%
		• Preschools which are accessible through an all-weather road	%									
		• Preschools with medical kit/first aid materials	%									
		• Preschools with emergency preparedness measures in place	%									

Strategic area	Intermediate outcomes/ Outputs	Indicator	Type of indicator	Disaggre-gation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Improve preschool quality to better prepare children for primary school Quality / preschool facilities	ELDS & curriculum appropriate for children in use	• Preschools using early childhood education programmes based on revised curricula and ELDS (Country specific SDG indicator 4.7.1)	%	• Overall • By rural/ urban • By regions	Annual / yearly	MOPSE reports	20%	80%	100%	100%	100%	100%
		• Teachers who have been trained in the new curriculum & ELDS (as per state norms / standards)	%				TBD					80%
	Facilities are in place to support quality & holistic child development in preschools	• Preschools with library facility (minimum: all prescribed child appropriate books available as per state norms/ standards)	%			EMIS	TBD					80%
		• Preschools with materials/toys for imaginative and developmental play as per ELDS requirements	%				TBD					80%
		• Preschools with Drawing and art materials as per ELDS requirements	%				TBD					80%
		• Preschools with Musical instruments/toys as per ELDS requirements	%				TBD					80%
	Enhanced use of ICT-enabled teaching & activities	• Preschools with computers (in adequate number as per the state norms / standards) (Country specific SDG indicator 4.a.1 (c))	%	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS	30%	44%	60%	70%	80%	100%
		• Preschools with internet (as per state norms / standards) (Country specific SDG indicator 4.a.1 (b)	%				0	20%	30%	40%	50%	70%
	Teacher work force norms and policies are implemented	• Children- Educator Ratio	Ratio	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS	TBD					80%
		• Preschools with all area-specific teachers (as per state norms / standards)	%				TBD					80%
		• Teachers with appropriate qualification (as per state norms / standards) (Country specific SDG indicator 4.c.1)	%				27,3%	29 %	31 %	34 %	37 %	41 %
		• Teachers who had in-service teacher training provided by state institutions in the past one year (Country specific SDG indicator 4.c.2)	%				20%	40%	60%	80%	100%	100%
		• Educators attrition rate	%				TBD					80%
Strengthen governance and Management of preschool services	Community participation	• Preschools with a functioning (meet at least once in every quarter) Parent-Teacher Association (PTA)	%	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS	TBD					80%
		• Community outreach /advocacy activities conducted	#				TBD					80%
	M&E strengthened to track results	• An Education Management Information System (EMIS) established and fully functional	Yes/ No	• National level	Annual	Report from MOPSE	TBD					80%
		• Analytical reports with EMIS data results	Yes/ No				TBD					80%
	Quality assurance	• National System in place for facilitating implementation of MELQO (MODEL and MELE)	Text	• National level	Annual	Report from MOPSE	TBD					80%

Table 69. Preschool Education: Process Indicators

Strategic area	Intermediate outcomes/ Outputs	Indicator	Type of indicator	Disaggre-gation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Expand access to preschool education	Improved and safe Preschool facilities	• Preschools repaired / reconstructed	#	• Overall • By rural/ urban • By regions	Annual	EMIS						
		• Preschools that was repaired in the last 5 years	#									
		• Preschools that was reconstructed in the last 5 years	#									
		• Preschools newly built	#									
Improving quality of preschool education services	Increase in quality preschool teaching and playing materials	• Preschools provided with new ELDS guidelines	#	• Overall • By rural/ urban	Annual	EMIS						
		• Preschools provided with new teaching/learning or play/game materials	#									
		• Materials for teacher training (at various levels) prepared	Training package	• National level	Annual	Training report						
Enhance public and private allocations to preschools and improve the efficiency and efficacy of public expenditures in preschool education	Preschool sector is adequately financed and diverse sources of funds are explored	• Preschools that have received funds from National/ Local governments based on a per student formula	#	• Overall • By rural/ urban	annual	Budget report analysis						
		• Budget allocation for preschool education sector	%	• National								
		• Budget allocation for preschool education in Centre budget	%	• Centre								
		• Budget allocation for preschool education in local budget	%	• By regions								
		• Budget allocation: share of salary of staff in overall education budget	%	• National								
		• Budget allocation: Share of construction/ repair etc. in overall education budget	%	• National								
		• Additional resources mobilized from Development Partners as a proportion of total public resources for preschool education	%	• National								
		• Additional resources mobilized through Public-Private Partnership (PPP) as a proportion of preschool budget	%	• National								

6.3.4 General Secondary Education: KPIs

Table 70. General Secondary Education: Outcome Indicators

Strategic area	Final Outcomes	Indicator	Type of indicator	Disaggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Maintain access to Inclusive General secondary education for all children, especially for children with disabilities and special needs and improve retention at secondary education	Maintain high enrollment rates	• Gross Enrolment Ratio (GER) at primary (grades 1-4) level • Net Enrolment Ratio (NER) at primary (grades 1-4) level	Ratio	• Overall, • By gender • By Rural/ Urban • By Regions • By disability type • By public/ private	Annual / yearly	EMIS	100.2% (111% in Tashkent & 96% in Bukhara)	105%	105%	105%	105%	105%
		• GER at secondary level (grades 5-9) • NER at secondary level (grades 5-9) • GER at Secondary specialization level (grades 10-11) • Graduation rate at general secondary level (grade 9) • Graduation rate at specialized secondary level (grade 11)					94.4% (107% in Tashkent ; 87% in Karkalpak)	96%	97%	98%	99%	101%
	improve gender parity and inclusion	• Gender Parity Index in enrollment (Country specific SDG indicator 4.5.1 for goal 4.5)	Ratio	• Overall, • By Rural/Urban • By Regions	Annual / yearly	EMIS	99%	99%	99%	99%	99%	99%
		• Proportion of CWD/CWSN integrated into regular schools (Country specific SDG indicator 4.5.2 for goal 4.5)	%				20%	30%	40%	50%	50%	50%
Enhance quality of education to ensure improved learning levels for children	Learning levels of children improved	• Proportion of children (a) in grades 1-4; (b) secondary school grades 5-9 who achieved at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex (Country specific SDG indicator 4.1.1 for goal 4.1)	%	• Overall, • By gender • By Rural/ Urban • By Regions • By disability type	Annual	National Assessment Surveys	TBD	TBD	TBD	TBD	TBD	TBD
		• Standardized mean scores of students from National Learning Assessment Surveys: **Grade 4** /**Grade 6** / **Grade 9** (subjects: Reading (Language), Mathematics and Science) (In alignment with Country specific SDG indicator 4.1.1 for goal 4.1 and 4.7.1 (d))	Mean Scale score				TBD	TBD	TBD	TBD	TBD	TBD
	Learning assessment done through international tests	• Standardized mean scores of students from international learning assessment (TIMSS/ PISA)	Mean Scale score	• Overall, • By gender • By Rural/ Urban • By Regions	As per TIMSS/ PISA schedule	International assessments	TBD	TBD	TBD	TBD	TBD	TBD

Table 71. General Secondary Education: Intermediate outcome/output Indicators

Strategic area	Intermediate Outcomes/ outputs	Indicator	Type of indicator	Disaggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Access & participation	Improved physical facilities in General Secondary schools	• Student-Classroom Ratio	ratio	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS		30	30	30	30	30
		• Schools with more than one shift	%					60%	55%	50%	50%	50%
		• Schools with boundary wall	#				6071	6491	6961	6991	7021	7051
		• Schools with adequate rooms for instructional activities (as per state norms / standards)	%									
		• Schools with drinking water facility (as per state norms / standards) (Country specific SDG indicator 4.a.1 (e))	%									
		• Schools with separate toilets for boys and girls (as per state norms/ standards) (Country specific SDG indicator 4.a.1 (f))	%				29%	35%	45%	60%	70%	75%
		• Schools with playground	%									
Safe and enabling learning environment	Safe and conducive learning environment available in General secondary schools	• Schools with CWD/CWSN friendly toilet (as per state norms/ standards) (Country specific SDG indicator 4.a.1 (d))	%	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS						
		• Schools by WASH facility (drinking water, functional toilets & hand wash) (Country specific SDG indicator 4.a.1 (g))	%									
		• Schools with emergency preparedness (as per state norms / standards)	%									
		• Schools with ramps (disable friendly) (Country specific SDG indicator 4.a.1 (d))	%					8399	8999	9600	9600	9600
		• Schools with heating facilities (during winter)	%				98%	98%	98%	98%	98%	98%
	Learning environment equipped with technological innovations in pedagogy	• Schools with uninterrupted electricity supply during school hours (Country specific SDG indicator 4.a.1 (a))	%	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS						
		• Schools with computers (in adequate number as per the state norms / standards) for ICT-enabled learning (Country specific SDG indicator 4.a.1 ©)	%									
		• Schools with internet (as per state norms / standards) (Country specific SDG indicator 4.a.1 (b))	%									
		• Schools with fully functioning laboratory (as per state norms / standards)	%	• Overall	Annual / yearly	EMIS						

	Teaching learning facilities	▪ Physics ▪ Chemistry ▪ Biology ▪ Computer Science		• By rural/ urban • By regions								
		• Schools with library facility (minimum: all prescribed textbooks, supplementary reference books, teacher guides, dictionary, atlas, story books available as per state norms/ standards)	%									
		• Schools with all students having all subject specific textbooks (as per state norms/ standards)	%									
Teacher work force development	Teacher availability and quality	• Pupil- Teacher Ratio	Ratio	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS						
		• Schools with all subject-specific teachers (as per state norms / standards) (Country specific SDG indicator 4.c.1, sub-indicator)	%									
		• Teachers with appropriate qualification (as per state norms / standards) (Country specific SDG indicator 4.c.1)	%									
		• Teachers who had in-service teacher training provided by state institutions as per norms (Country specific SDG indicator 4.c.2)	%									
		• Teachers who have been trained in the new curriculum (as per state norms / standards) (variant of country specific SDG indicator 4.7.1)	%									
		• Teachers who are 55+ years (to gauge future vacancies)	%									
Teaching Learning Materials and pedagogy	Methodology and instructional time	• Total Instructional days in the previous academic year	%	• Overall • By rural/ urban • By regions	Annual / yearly	EMIS	160	165	165	170	170	175
		• Students with language of instruction is same as language spoken at home	%	• Overall • By grade • By gender • By rural/ urban • By regions	Annual / yearly	EMIS		80%	80%	80%	80%	80%
		• Students provided with special /remedial coaching/training	%					TBD	TBD	TBD	TBD	TBD
Quality and assessment	Establishing learning assessment systems	• A system for conducting National Learning Assessments established and fully functional (institution / department with staff for performing various tasks appointed and conducted at least one round of sample-based assessment in the previous academic year)	Yes/ No	• National level • National level	Annual	Report from MOPE /SISEQ	No	Yes	Yes	Yes	Yes	Yes

		• National Learning Assessment (NAS) results of the latest round (grade specific) analyzed and published	Yes/ No						Yes	Yes	Yes	Yes
		• An Education Management Information System (EMIS) established and fully functional	Yes/ No					Yes	Yes	Yes	Yes	Yes
		• Analytical reports with EMIS data results	Yes/ No					Yes	Yes	Yes	Yes	Yes
	Instructional time, students' opportunity to learn and assessments	• Teacher's time use, Instructional Time and quality of teaching-learning tasks	Report	• National level	Once in 2-3 years	Research study		Yes			Yes	
		• Students' Opportunity to learn, instructional time and quality of learning activities	Report						Yes			Yes
		• Formative and summative assessments and feedback mechanisms to students	Report					Yes	Yes	Yes	Yes	Yes
Quality /curriculum	Textbooks quality review	• Number of subject textbooks audited for gender and social correctness	Report	• National level	Each year, specific grades & subjects	Research /review			30%	30%	30%	
		• Number of textbooks revised according to revised curriculum	Report						1/3	1/3	1/3	
		• A study on the adaptation of the SSE curriculum and labour market requirements	Report	• National level		Research study		Yes	Yes	Yes	Yes	Yes
Management	School Based management	• Schools with a Parent-Teacher Association or School Management Committee	Report		Annual / yearly	EMIS		100%	100%	100%	100%	100%

Table 72. General Secondary Education: Process Indicators

Strategic area	Processes/ Activities	Indicator	Type of indicator	Disaggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Access and participation	Improving School physical facilities	• Schools repaired / reconstructed with new/existing classrooms	#	• Overall • By rural/ urban	Annual	EMIS		500	500	600	600	600
		• Schools provided with new/ reconstructed toilets	#									
		• Schools provided with new/ reconstructed water facility	#									
		• Schools provided with new / refurbished playground	#									
		• Schools where new ramps (for disabled) constructed	#									
		• Schools provided with new / repaired heating systems	#									
Quality and relevance	Improving school teaching facilities	• Schools provided with new / reconstructed laboratories	#	• Overall • By rural/ urban	Annual	EMIS						
		• Schools provided with new/ reconstructed libraries	#									
		• Schools provided with new computers/ replaced old computers	#									
		• Schools provided with high quality /speed internet	#									
Governance and education Management	Activities for Capacity building at various levels	• Materials for teacher training (at various levels) prepared	Training package	• National level	Annual	Report						
		• Number of Staff at the NAS institution trained on various aspects of assessment surveys	#									
		• Number of schools who have developed a School Development Plan	#	• Overall • By rural/ urban	annual	Report/ EMIS						
		• Number of schools that have received funds from National/Local governments based on a per student formula	#									
	Ensuring resources for general secondary education	• Budget allocation for general secondary education sector	%	• National	annual	Budget report analysis						
		• Budget allocation for general secondary education in Centre budget	%	• Centre	annual							
		• Budget allocation for general secondary education in local budget	%	• By regions								
		• Budget allocation: share of salary of staff in overall education budget	%	• National								
		• Budget allocation: Share of construction/ repair etc. in overall education budget	%	• National								

6.3.5 *Professional Education/TVET and Higher Education: KPIs*

Table 73. Professional Education / TVET and Higher Education: Outcome Indicators

Strategic area	Final Outcomes	Indicator	Type of indicator	Disaggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
Access and participation	Outcome	• Gross Enrolment Ratio (GER) at Higher Education • Gross Intake Ratio at Higher Education (proportion of students who appeared for entrance exams getting admitted) • Proportion of HE students at Bachelors level course • Proportion of HE students at Masters or higher-level course • Graduation rate at Higher Education (course completion) • Higher Education Dismissal rates • Number of students enrolled in distance education programmes	Ratio	• Overall, • By gender • By Rural/ Urban • By Regions • By type of course	Annual / yearly	HE & TVET MIS						
		• Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex (Country specific SDG indicator 4.3.1 for goal 4.3)										
	Outcome	• Gender Parity Index in Higher Education admission (intake) • GPI in Bachelors' Programme enrollment • GPI in Mastesrs' Programme enrollment • GPI in HE overall graduation rates • GPI in TVET/ Professional Education) (Country specific SDG indicator 4.5.1 for goal 4.5)	Index	• Overall • By regions • By type of course	annual	HE & TVET MIS						
Quality	Outcome	• Students who passed the HE exams • Students who scored distinction in graduate exams (HE) • Students who qualify TVET trade final evaluation	%	• Overall, • By gender • By type of course	Annual	University reports						
		• Proportion of youth and adults with information and communications technology (ICT) skills, by type of skills (Country specific SDG indicator 4.4.1 for goal 4.4)		• Overall • By gender • By level of course	Annual / yearly	HE & TVET MIS						

Table 74. Professional Education / TVET and Higher Education: Intermediate Outcome /output Indicators

Strategic area	Outputs	Indicator	Type of indicator	Disaggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
		•		•								
Access / facilities	Output	• Student-Class Ratio -HE • Student-Class Ratio - TVET	ratio	• Overall • By type of course	Annual / yearly	HE & TVET MIS						
Access /facilities	Output	• Higher Education Institutions with adequate rooms for instructional activities (as per state norms / standards) • TVET institutions with adequate rooms for training	%	• Overall • By type of course/ trade	Annual / yearly	HE & TVET MIS						
Access / facilities	Output	• Higher Education Institutions with adequate physical infrastructure (as per state norms / standards) • TVET institutions with adequate physical infrastructure	%									
Access / facilities	Output	• Higher Education Institutions with adequate laboratories (as per state norms / standards) • TVET institutions with adequate laboratories • TVET institutions with adequate workshops	%									
Access / facilities	Output	• Higher Education Institutions with adequate libraries (as per state norms / standards)	%									
Access / facilities	Output	• Higher Education Institutions with adequate ICT facilities (as per state norms / standards) • TVET institutions with adequate ICT facilities	%									
Access	Output	• Higher Education Institutions providing education through Massive Open Online Courses (MOOC) platform (as per state norms / standards)	#	• Overall	Annual / yearly	Higher Education MIS						
Access	Output	• Number of students enrolled in MOOC programmes	#	• Overall • By gender • By type of course	Annual / yearly	Higher Education MIS						
Quality/ Human resources	Output	• Pupil- Faculty Ratio	Ratio	• Overall • By type of course	Annual / yearly	Higher Education MIS						
Quality / Human resources	Output	• HE Faculty with doctoral (Ph.D) degree (Country specific SDG indicator 4.c.1)	%	• Overall	Annual / yearly	Higher Education MIS						

Quality / Human resources	Output	• HE Faculty with Masters' and above degree (Country specific SDG indicator 4.c.1)	%	• By type of course • By subject								
Quality / Human resources	Output	• HE faculty with at least one research project completed in the previous year (Variant of Country specific SDG indicator 4.c.2)	%									
Quality / Human resources	Output	• HE faculty with at least three research publications in a refereed journal in the last three years (Variant of Country specific SDG indicator 4.c.2)	%									
Quality / Human resources	Output	• HE faculty with who have presented a paper at least in one international conference in the last academic year (Variant of Country specific SDG indicator 4.c.2)	%									
Quality / Human resources	Output	• HE faculty with who have presented a paper at least in three Central Asia regional conference in the last academic year (Variant of Country specific SDG indicator 4.c.2)	%									
Quality / Human resources	Output	• HE faculty with who have attended at least one training programme in the last academic year (Country specific SDG indicator 4.c.2)	%									
Quality/ Student services	Output	• Students receiving free HE (no fees to pay)	%	• Overall • By gender • By regions	Annual / yearly	Higher Education MIS						
Quality / data	Output	• A Higher Education Management Information System (HEMIS) established and fully functional • A TVET MIS is established and fully functional	Yes/ No	• National level	Annual	Report from MOHSE						
Quality / data analysis	Output	• Analytical reports with HEMIS data results • Analytical reports with TVET data	Yes/ No	• National level	Annual	Report from MOHSE						
		• A study on the adaptation of the PE curriculum and labour market requirements	Report	• National level		Research study						

Table 75. Professional Education / TVET and Higher Education: Process Indicators

Strategic area	Process indicators	Indicator	Type of indicator	Disaggregation	Frequency	Source of data	2018 baseline	2019	2020	2021	2022	2023
		•		•								
Access /school facilities	Activities	• Number of HE Institutions repaired / reconstructed with new/existing classrooms	#	• Overall •	Annual	EMIS						
Access / facilities	Activities	• Number of HE institutions provided with new/ reconstructed infrastructure facilities	#	• Overall •	Annual	EMIS						
Access/ facilities	Activities	• Number of HE institutions provided with new / reconstructed laboratories	#	• Overall • By rural/urban	Annual	EMIS						
Access/ facilities	Activities	• Number of HE institutions provided with new/ reconstructed libraries	#	• Overall • By rural/urban	Annual	EMIS						
Access/ facilities	Activities	• Number of HE institutions provided with new ICT facilities	#	• Overall • By rural/urban	Annual	EMIS						
Resources	Inputs	• Budget allocation for Higher Education sector (A variant of Country specific SDG indicator 4.b.1)	%	• National	annual	Budget report analysis						
Resources	Inputs	• Budget allocation: share of salary of HE staffs in overall education budget	%	• National	annual	Budget report analysis						
Resources	Inputs	• Budget allocation: Share of construction/ repair etc. of HE institutions. in overall education budget	%	• National	annual	Budget report analysis						

7 Financing and costing considerations

As part of the ESP, financial projections for Preschool Education, General Secondary Education and Higher Education have been made for the period 2019-2023. Multiple reform programmes are in their initial stages in each of the subsectors. Wherever these reforms can be linked to anticipated changes in resource requirements, they have been incorporated into the projections for the 2019-2023. Where details of reforms are still being defined, the estimates represent a projection of recent spending adjusted for demographic and/or enrolment changes.

7.1 Education spending

Recent trends in education spending expressed as a percentage of GDP were used to estimate future allocation to the education sector. It is important to note that major infrastructure spending in the sector is funded through the *Fund for Reconstruction, Renovating and Equipping Educational and Medical Institutions* and is not included in the education budget. The projections of education total spending below represent resources available for salaries and non-salary recurrent expenditures for administration and provision of services in institutions. GDP estimates for 2017 and forcasts for 2018-2020 available from World Bank -IMF (see table 1) was used for the analysis here. In addition, information on the projected inflation, budget revenues and budget expenditures, as available from World-Bank and IMF is used here.

Table 76. Uzbekistan: Key Macroeconomic Indicators and Projections, 2014-2020

	2014	2015	2016	2017e	2018f	2019f	2020f
Real GDP growth, %	8.1	7.9	7.8	5.3	5.0	5.1	5.5
GDP per capita (US$)	2,050	2,124	2,094	1,491	1,239	1,449	1,526
CPI inflation (official end of year), %	6.1	5.6	5.7	14.4	16.9	10.1	8.2
CPI inflation (IMF estimate, end of year), %	9.3	8.4	7.9	18.9	16.9	10.1	8.2
Budget revenue (% of GDP)	33.1	33.0	30.5	30.1	30.1	30.0	30.5
o/w Tax revenue (% of GDP)	20.3	19.9	19.0	18.8	19.4	19.6	19.4
Budget expenditure (% of GDP)	32.7	34.1	31.3	30.1	31.3	31.4	30.4
o/w Current expenditure (% of GDP)	28.4	29.8	27.9	25.8	26.9	26.3	27.3
o/w wages and salaries (% of GDP)	10.4	10.3	10.3	10.3	9.8	9.2	10.0
Capital expenditure (% of GDP)	3.7	2.6	2.4	2.6	2.4	2.5	2.6
Gov. revenue incl. UFRD	35.6	34.3	32.2	31.7	31.8	31.5	32.0
Gov. expenditure, incl. UFRD	33.6	35.5	32.7	35.0	33.1	32.9	33.4
Capital expenditure, incl. UFRD	4.6	4.0	3.8	7.4	4.1	4.0	4.1

7.2 Preschool Education

The GoU has established a target of full participation for children 6-7 years of age and 50% participation of children 3-5 years of age by 2021. This translates roughly to a 60% (62.5) participation rate (3-7) by 2021.[119] Preschool Education is financed through the state budget and through fees paid by households. Fees are intended to cover primarily the costs of food and vary by the nature of the service; 6 days, 5 days and full or ½ day. Privately provided Preschool Education is rare with less than 2% of students attending a privately funded centre (2016).

There are considerable fiscal and operation challenges to expanding the current system to meet the participation goals. While preschool education has incorporated about 70,000 additional students per year between 2015 and 2019, meeting the targets requires incorporating more than 225,000 additional students each year between 2018/2019 and 2022/2023.

MoPSE estimates that existing infrastructure can accommodate about 340,000 additional students. MoPSE also plans to expand the half-day Kindergarten programme to 600 existing additional institutions per year between 2019 and 2021, and estimates that this expansion will reach an additional 90,000 students.

In addition, a community-based alternative is being considered. This modality would be provided by a qualified teacher (or a non-qualified person undergoing the necessary training) in a home setting. The community-based modality would be state funded (teachers and materials). This modality is seen as a response to meeting participation targets in communities where population and distance make provision of service through existing or new centres prohibitively expensive on a per student basis.

Three steps for the planned expansion of Preschool Education were estimated:

- As a first step, demographic trends[120] and enrolment targets were considered. At this stage, current (2016 and 2017) per student spending levels and incorporates MOPSE planned expansion of private provision to 500,000 students by 2023. In all three scenarios an additional UZS 230,000 per student was included for learning and teaching materials (previously irregularly provided).
- As a next step, along with the baseline assumptions as above, currently planned expansion of the half-day programme to 600 additional centres each year between 2019 and 2021 is also included.
- The final stage estimates incorporates the above two along with additional assumptions. The additional assumptions include a modification in the allocation of teachers to preschool education. The current model of assigning specialised teachers (Languages, Physical Education, Music) results in a benchmark[121] student-teacher ratio of about 14.5 to 1. By training the classroom teacher in preschool education to also teach Music and Physical Education, this ratio can be increased to 18 to 1. The final scenario incorporates this modified teacher allocation that gradually increases the student-teacher ratio from the ratio measured in 2016/17 of about 13 to 1 to a ratio of 18 to 1 in 2023.

[119] The existing system has high costs and low participation rates. While Uzbekistan expended roughly 0.8% of GDP on preschool education in 2013 (roughly equivalent to Finland and much higher than Japan), participation rates (33% in 2018/19) compare unfavourably to near neighbours Kazakhstan (60%) and Russia (85%).

[120] Population projections based on figures from the State Committee of the Republic of Uzbekistan on Statistics and confirmed by United Nations Population Databases.

[121] Using MoPSE allocation model per “group” of 25 students.

The final projections also includes the provision of a community-based modality (home based). It is assumed that the community-based expansion will be gradually implemented beginning in 2019 and will reach 12% of the public Preschool Education students by 2023. [122] Each community-based Preschool will have a student-teacher ratio of 15 to 1; a qualified teacher remunerated at the appropriate level for a Preschool Education teacher; include an installation grant of UZS 11.5 million for necessary modifications to the site and an annual facility grant of UZS 3.85 million. Learning and teaching materials will be identical to those provided to students in other state supported Preschools.

Detailed expenditure data provided by the Ministry of Finance for 2017 indicates that less than 1% of Preschool Education expenditures are incurred for the national and sub-national administration of the system. About 73 percent of 2017 recurrent spending for Preschool Education was for salaries at the level of institutions (primarily teachers). When the reported capital spending[123] is included the percentage of spending attributable primarily to teacher salaries represents about 64% of total spending. In the Preschool Education scenarios, the expenditures on administration were held constant on a per student basis throughout the ESP period.

The first stage analysis indicates that without significant changes in policy or norms for the provision of preschool Education, the demographic trends and the new targets for provision will require annual spending to increase by about 56% between 2017 and 2023. Spending by category (administration, institutions and salaries at institutions) increases in parallel with the overall increase in required spending. The increases are consistent with the expected 50% increase in the number of public Preschool Education students during the same period.

In the next stage, MoPSE plans to expand the half-day programme to 600 institutions per year between 2019 and 2021 (1,800 institutions) are incorporated. Providing a half-day programme for an additional approximately 90,000 students raises the effective student teacher ratio (the same teachers can provide services to two half-day cohorts). Expanding the half-day KG programme to an additional 90,000 students slows the growth in required resources to about 50% over 2016 spending (about 6% slower than the first stage estimations). The primary difference between scenario 1 and scenario 2 is the slower growth in requirements for institutional level salaries (primarily teachers). While the baseline scenario estimates that the required growth of institutional level salaries will be about 53%, expanding the half-day programme as planned (90,000 students) reduces this anticipated growth to about 40%.

In the final stage of estimation, the change in the teacher allocation model that allows student teacher ratios to increase from current levels to about 18 to 1 by 2022 and the provision of a community-based model beginning in 2019 and gradually expanded to meet the needs of 12% of the public Preschool Education students by 2023. The community-based model projections include an UZS 11.5 million installation grant (capital) for each new community-based site (for 15 students) and an ongoing additional annual recurrent annual grant for maintenance and facility improvements of UZS 3.85 million.

Incorporating both of the reforms suggested in the final stage estimations (modification of teacher allocation model and provision of a community based modality) reduces the projected growth of required spending to 34% - compared to the baseline estimate of 56% growth. Scenario 3 assumes: no additional resources are required for ensuring the quality of the community-based provision, an initial training/orientation of the teachers in the community based programme and ongoing incorporation of

[122] This would represent about 30% of the new enrolment.

[123] For 2017 the Ministry of Finance provided the capital spending from the *Fund for Reconstruction* that was used for works in the Preschool Education subsector.

the community-based teachers into the existing in-service programme can all be accommodated in the budget of MoHSSE. The final stage estimations also took into account the assumption that teacher (and administrator) salaries would increase by 100% between 2018 and 2023. By 2023 the increase in salaries would require an additional 70% in resources allocated to Preschool Education compared to the final stage estimations with no salary increases.

Table 77. Projected Costs of Expanding Equitable Access to Quality Preschool Education in Uzbekistan during 2019-2023

Parameters	Reported/Calculated			Estimated	Projected				
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Population (million) ages 3-6	2.46	2.48	2.51	2.53	2.54	2.53	2.52	2.51	2.55
Gross Enrolment Rate (%)	25%	26%	28%	33%	46%	53%	60%	62%	64%
Enrolment Total	620769	634052	690975	740849	964345	1201084	1437823	1674561	1727303
Ernolment Public				727849	828348	942333	1056318	1170302	1201433
Private Enrolment				13243	135997	258751	381505	504259	525870
Expenditures UZS billion	1482	1661	2103	2085	3878	5913	6139	6517	6707
Captial			269	237	1261	1655	1713	1771	1825
Non-Capital	1482	1661	1834	1848	2616	4259	4426	4747	4882
o/w Salaries+ benefits			1338	1295	1843	2206	2301	2550	2618
Other expenditure			494	553	773	2053	2125	2197	2265
% Ed. Exp.	13%	12%	14%	15%	13%	18%	18%	18%	17%

Using a snapshot of expenditure data to evaluate policy alternatives can sometimes be misleading because of the different mix of capital and recurrent spending in the alternatives being compared. To further examine the potential impact of scenario 3, the ingredients method[124] was used to estimate an annual per student required expenditure in the medium term (2022 and beyond) for the current system (baseline scenario) and scenario 3, as further shown below:

[124] The *ingredients method* is typically used in evaluating the cost-effectiveness of policy alternatives. In applying the method, the concept of cost is applied as the economic (or opportunity) cost of a given activity. By capturing the opportunity cost of a proposed policy or intervention rather than the budgetary costs, decision makers can evaluate alternatives on the basis of their relative efficiency. Capital costs are captured as their discounted annual equivalent value using an assumed social rate of return in the entire economy. For the calculations of the annualised cost per student for Preschool Education the ESP used a 4% discount rate an assumed a useful life of the formal school building of 25 years and 15 years for the community-based mode.
Cf Clive Belfield & A. Brooks Bowden & Henry M. Levin, 2018. *Cost estimation in education: The ingredients method*, Chapters in: Teaching Benefit-Cost Analysis, chapter 16, pages 200-207. Edward Elgar Publishing.

Table 78: Annualised Medium Term Expenditure per student – Baseline and Projected Scenario					
Ingredients	**Ingredients Costs**	**Current system**		**Projected Scenario**	
		Assumptions	**UZS million per student**	**Assumptions**	**UZS million per student**
Teachers	Teacher salaries UZS 25 million per teacher	13 students per teacher	1.930 (3.98 with 100% increase)	15 students per teacher community-based 36 students per teacher ½ day	1.570 (2.73 with 100% increase)
In-service training	In-service training UZS 7.5 million per teacher/annual equivalent = UZS 1.5 million per teacher	13 students per teacher	0.115	15 students per teacher community-based 36 students per teacher ½ day	0.079
Infrastructure	Infrastructure Each group of 25 students Replacement cost = UZS 192 million Annualised cost = UZS 12.3 million	25 students per group	0.490	UZS 11.5 million for 12% of students Annual physical improvement/ maintenance grant of UZS 3.85 million per annum	0.449
Materials	Teaching/Learning Materials UZS 0.23 million per student	UZS 0.23 million per student	0.230	UZS 0.23 million per student	0.230
Total annual per student in UZS million		**2.765**		**2.328**	
Total annual per student in UZS million with 100% salary increase		**4.815**		**3.488**	

The estimated medium term annual per student required expenditure applying scenario 3 reforms is about UZS 400,000 less than the estimated annual cost of maintaining the current system unchanged. The cost savings result from higher student-teacher ratios from rationalising overall subsector student teacher ratios to 18 to 1 from the current 13 to 1, reducing both teacher and infrastructure requirements by expanding the ½ day Kindergarten programme to another 90,000 students and reducing new infrastructure requirements by incorporating 12% of the public Preschool Education enrolment in a community-based modality.

When the assumption of a 100% increase in teacher salaries is included in the cost estimate, the savings associated with scenario 3 increase to about 25% because of the higher student-teacher ratios that result from the reforms. The ½ day KG and the community based modality would also be expected to have operational benefits by facilitating the provision of service to children in more isolated communities in a cost-effective manner.

7.3 General Secondary Education

Student cohorts and recent trends in spending in General Secondary Education were combined with 2017-18 subsector expenditures and 2018/19 budget allocation provided by the Ministry of Finance to project resource requirements for General Secondary Education. Up until 2016/17 General Secondary Education included 9 grades. In 2017/18 Grade 10 was incorporated and beginning in 2018/19 Grade 11 was added and compulsory schooling was reduced to 11 years. Some of the previous vocational content has been integrated into the General Secondary subsector and specialised professional training is now managed by the Ministry of Higher and Specialised Secondary Education.

Using the current primary cohort (Grades 1 to 4) as a baseline, the student population in Grades 5 to 11 is expected to increase by nearly 25% between 2017 and 2022. The primary cohort will also increase by about 20%, but this estimate is sensitive to demographic assumptions about the number of children reaching the age of school entry. With the additional grades added to the subsector and the growth in the General Secondary Education student population, the subsector is expected to consume around 60% of the projected education costs.

Table 79. Projected Costs of Quality General Secondary Education in Uzbekistan during 2019-2023

Parameters	Reported/Calculated				Estimated				
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Population (mn) ages 7-17		2.48	2.51	2.53	2.54	2.53	2.52	2.51	2.50
G1 to G4	2,134,601	2,260,515	2,391,489	2,478,576	2,572,905	2,665,695	2,756,700	2,857,800	2,665,695
G5 to G9 + G10 -G11	2,403,847	2,410,170	2,433,485	2,502,252	2,606,895	2,757,812	2,904,878	3,016,589	2,757,812
Total General Secondary enrolment	4,538,448	4,670,685	4,824,974	4,980,828	5,179,800	5,423,507	5,661,578	5,874,389	6,104,040
Expenditures UZS billion	6,299	9,018	10,989	13,176	18,076	19,884	20,923	21,971	23,070
Capital		1,153	1,457	1,655	5,154	5,414	4,905	4,406	3,957
Non-Capital		7,865	9,532	11,521	12,922	14,470	16,018	17,565	19,113
o/w Salaries + benefits				10,784	12,146	13,690	15,234	16,778	18,322
Other expenditure				737.8	775.8	779.6	783.4	787.2	791.0
% Ed. Exp.			64.5%	70%	63%	60%	60%	59%	59%

The projections indicate that the resource requirements for General Secondary Education will grow over the ESP period. While 2017 capital expenditures and 2018 capital spending allocation have been utilised in the projections, the MoPE objectives for addressing infrastructure backlogs and revitalising schools with updated laboratories and ICT investments may likely exceed the resource envelope projected).[125] When a salary increase reaching 100% by 2022 is included in the calculation, annual resource requirements for General Secondary Education increase by 65% over the plan period.

One potential reform to the system that would reduce requirements and provide more fiscal space for needed investments in facilities, equipment and materials is a reform of the study programmes to

[125] For example, MoPE intends to construct 340 new General Secondary Schools during the ESP period.

reduce/consolidate and prioritise subject offerings. Student-teacher ratios at the primary level (Grades 1 to 4) are about 22 students per teacher. However, the subject specialisation in grades 5 through 11 results in ratios less than 9 students per teacher[126]. Consolidation and prioritising subject offerings in Grades 5 through 11 that resulted in increasing the ratio of students to teachers from just under 9 to 11 students per teacher would result in raising the overall ratio in the subsector (Grades 1-11) from the current ratio (2017) of 13 to 1 to a ratio of 15 to 1. This would represent a savings of about UZS 1,800 billion per year that could be used for other quality improvements. When the assumption of a 100% increase in teacher salaries is included in the projection, the potential savings from consolidating and prioritising subject offerings is about UZS 3.6 billion per year.

7.4 Higher and Secondary Specialised Education

Higher and Specialised Secondary Education encompasses Higher Education and – since 2017/18 – Professional Education (previously Specialised Secondary Education). Participation is constrained[127] by central government established quotas for new Higher Education admissions of 60 thousand places per year. These quotas have remained stable despite increasing demand with admissions meeting about 19% of demand in 2009 and just 9% of demand in 2017. [128]

In conjunction with hard limits on new entrants, the Higher Education sector has made increasing use of "student contracts "(fees) as a means of financing Higher Education places with the value of contracts more than doubling from the inception of the scheme in 2012. During this same period state funding has declined slightly as a percentage of total education spending. As of 2018, there was no private Higher Education option for students in Uzbekistan.

Uzbekistan has traditionally had high rates of participation in specialised vocational training (87% in 2016). With the policy reforms that consolidated compulsory education into 11 years provided in General Secondary Education and the incorporation of Professional Education into the MoHSSE, vocational training is no longer an option for completing compulsory schooling and in the first year of the reform – 2017 – enrolment has already declined by 60% from the previous year.

It is anticipated that the number of vocational colleges will be reduced from about 1,400 to 800. [129] While in-service training of teachers represents an ongoing source of demand for Professional Education, [130] the subsector is currently exploring strategies for new models of service delivery that are more responsive to labour market demands and would be more reliant of student fees.

Both an indication of unit costs and estimates of the number of students are required to make a reasonable projection of resource requirements for Professional Education. The significant changes in the structure of the system creates a high degree of uncertainty over the number of students and mix

[126] Calculation using 2017 enrolment data and teacher numbers UNESCO UIS.
[127] Participation in Higher Education in Uzbekistan is considerably lower than would be expected for its level of development. A Higher Education GER of 9% compares unfavourably to neighbour Kazakhstan (50%), the OECD average (73%) and is considerably less that the expected rate for a Lower Middle-Income Country (LMIC) of similar levels of income (24%). The overall rate for LMICs is 50%.
[128] As calculated by the ratio of applications to admissions.
[129] The World Bank, draft Education Sector Analysis as on October 15, 2018.
[130] There are also between 300,000 and 500,000 students who began vocational programmes when Specialised Secondary Education was part of the compulsory system. Those students will be completing programmes in the next two years, further reducing enrolment.

(types) of programmes over the next few years. A useful projection of resource requirements will only be possible once policy options and programme strategies are more concretely defined.

For Higher Education two scenarios were developed. The baseline scenario assumes the maintenance of the current cap on new Higher Education places and constant 2017 costs throughout the plan period. The second scenario assumes the current cost structure and incorporates an expansion of the system to reach a GER of 15% in 2023. Reaching a 15% GER by 2023 would require adding about 110,000 additional Higher Education students. Using the 2017 baseline costs, this could be accomplished with a small increase in the percentage of the projected education budget from the current 5 percent to 6 percent in 2023.

The estimated costs of increasing Higher Education participation 2019-2023 were based on the assumption of holding expenditure per student (about UZS 4.14 million) constant. When the scenario incorporates the assumption that teaching salaries will increase by 100% by 2023, the cost per student reaches about UZS 8 million (.

Table 80. Projected Costs of Expanding Higher Education in Uzbekistan during 2019-2023

Parameters			Estimated					
	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Population (million) ages 18-25	2.90	2.90	2.82	2.75	2.69	2.66	2.64	2.63
HE enrollment rate (projected)	9%	10%	10%	10%	12%	13%	14%	15%
HE enrollments	268,300	281,000	281,000	281,944	329,536	349,841	371,720	395,481
Expenditures UZS billion	**643**	**720**	**1,165**	**1,600**	**1,950**	**2,340**	**2,775**	**3,154**
Capital			312.6	365.4	387.9	412.1	438.5	472.9
Non-Capital			853	1,234	1,562	1,928	2,336	2,681
o/w Salaries			813	1,188	1,513	1,875	2,280	2,621
Other Expenditures			39.8	46.5	49.4	52.5	55.8	60.2
% Ed. Exp. (recurrent only)	4.8%	4.9%	5.2%	5.6%	5.9%	6.7%	7.5%	8.1%

7.5 Overall Projected ESP Costs, projected government expenditures for education sub-sectors and overall financing gaps

The overall ESP costs were estimated using the method described above for preschool education, general secondary education as well as higher education. For the rest of the sub-sectors, a linear estimation of the current expenditures, with an additional 2% increase for any new activities (not envisaged now, but may arise in future) are projected. The possible government financing is estimated taking into account at least 5% growth rates in GDP (as per the World Bank – IMF projected GDP growth rates) every year is assumed. It is also assumed that the 6.8% share of education in GDP will be maintained. The gap between ESP projected costs and the projected government expenditures are considered as financing gap.

The forcasting of financing gaps show that Uzbek soum 44259 billion is the estimated gap for overall education sector for the period 2019 – 2023. This accounts for in today's exchange rate, around $ 5.5

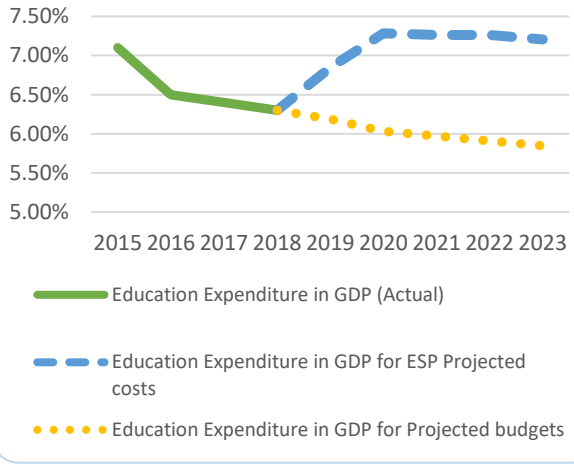
billion, or per year, $ 1.1 billion. It must be noted that this is an ambitious plan, but even with lowered expectations, the financing gap will remain very high.

As of now, the Development Partners – The World Bank, GPE and UN together will be financing around $ 93 million during the ESP period. The World Bank financing is through its soft loan arm of IDA, around 54 million for preschool education and $ 27 million for Higher Education project. UNICEF will provide technical support for system level changes in preschool and general secondary education. Other UN agencies will also focus on various subsectors of education.

Overall, the ESP has come up with general sector-wide projections. More detailed planning and projections are required in the medium term and the government will invest time and resources to do the same in the first year of ESP – 2019.

The overall projected education expenditures under ESP will increase the share of education expenditures in projected GDP. This is in contrast to the trends if the current budget expenditure trends of education had continued. The share of projected education costs in projected government budgeted expenditures wil be above 20% throughout the ESP period. This is evident from the graphs below.

Graph 66. Education Expenditures in GDP - Trends and projected for ESP costs



Graph 67. Share of projected education costs in projected budget expenditures of GOU - 2019-2023

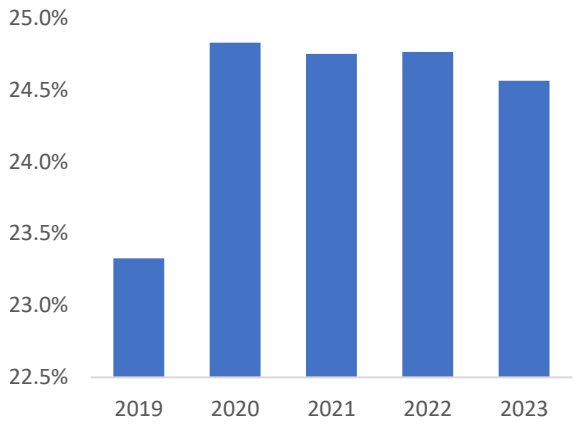


Table 81. Sub-sector wise Expenditure projections for education and financing gaps for the period 2019-2023 in Uzbekistan (in Billion Uzbek Soums)

		2019	2020	2021	2022	2023	2019-2023
Pre-school education	**Projected costs for implementing ESP**	3878	5913	6139	6517	6707	29155
	Projected budget	2308	2424	2545	2672	2806	12755
	Financing gaps	1569	3490	3594	3845	3902	16400
General secondary education	**Projected costs for implementing ESP**	18076	19884	20923	21971	23070	103924
	Projected budget	18076	18980	19929	20925	21971	99881
	Financing gaps	0	904	994	1046	1099	4043
Education for CWSN	**Projected costs for implementing ESP**	255	267	281	295	309	1407
	Projected budget	247	260	273	286	301	1367
	Financing gaps	7	8	8	8	9	40
Education at out-of-school institutions and music schools	**Projected costs for implementing ESP**	630	649	681	716	751	3428
	Projected budget	600	630	662	695	730	3318
	Financing gaps	30	19	19	20	21	110
Educating children at "Mekhribonlik" children's homes	**Projected costs for implementing ESP**	50	52	54	57	60	273
	Projected budget	48	50	53	55	58	264
	Financing gaps	2	2	2	2	2	9
Other activities on general education	**Projected costs for implementing ESP**	128	132	139	146	153	698
	Projected budget	122	128	135	141	149	675
	Financing gaps	6	4	4	4	4	22
Education at academic lyceums	**Projected costs for implementing ESP**	345	355	373	391	411	1875
	Projected budget	328	345	362	380	399	1815
	Financing gaps	16	10	11	11	12	60
Education at vocational education colleges	**Projected costs for implementing ESP**	3604	3548	3718	3904	4099	18872
	Projected budget	3276	3440	3612	3792	3982	18102
	Financing gaps	328	108	106	112	117	771

		2019	2020	2021	2022	2023	2019-2023
Higher education	**Projected costs for implementing ESP**	1600	1950	2340	2775	3154	11818
	Projected budget	805	846	888	932	979	4450
	Financing gaps	794	1105	1452	1842	2175	7368
Other activities on training the personnel	Projected costs for implementing ESP	179	188	197	207	217	987
	Projected budget	170	179	188	197	207	940
	Financing gaps	9	9	9	10	10	47
Total	Projected costs for implementing ESP	28744	32939	34845	36978	38932	172437
	Projected budget	25982	27281	28645	30077	31581	143567
	Financing gaps	2762	5657	6200	6901	7351	28870
	Projected Financing gaps (Million USD)	345	707	775	863	919	3609

Table 82: Share of Major Sub-sectors in projected costs, projected budgets and financing gaps for the period 2019-2023							
Education sub-sector		**2019**	**2020**	**2021**	**2022**	**2023**	**2019-2023**
Pre-school education	**Projected costs for implementing ESP**	13.5%	18.0%	17.6%	17.6%	17.2%	16.9%
	Projected budget	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%
	Financing gaps	56.8%	61.7%	58.0%	55.7%	53.1%	56.8%
General secondary education	**Projected costs for implementing ESP**	62.9%	60.4%	60.0%	59.4%	59.3%	60.3%
	Projected budget	69.6%	69.6%	69.6%	69.6%	69.6%	69.6%
	Financing gaps	0.0%	16.0%	16.0%	15.2%	14.9%	14.0%
Higher education	**Projected costs for implementing ESP**	5.6%	5.9%	6.7%	7.5%	8.1%	6.9%
	Projected budget	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
	Financing gaps	28.8%	19.5%	23.4%	26.7%	29.6%	25.5%
Education at academic lyceums	**Projected costs for implementing ESP**	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%
	Projected budget	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
	Financing gaps	0.6%	0.2%	0.2%	0.2%	0.2%	0.2%
Education at vocational education colleges	**Projected costs for implementing ESP**	12.5%	10.8%	10.7%	10.6%	10.5%	10.9%
	Projected budget	12.6%	12.6%	12.6%	12.6%	12.6%	12.6%
	Financing gaps	11.9%	1.9%	1.7%	1.6%	1.6%	2.7%
Other Education Sub-sectors	**Projected costs for implementing ESP**	4.3%	3.9%	3.9%	3.8%	3.8%	3.9%
	Projected budget	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
	Financing gaps	2.0%	0.7%	0.7%	0.6%	0.6%	0.8%

Table 83. Financing Gap to be met by Development Partner support							
Donor	**Kind of support**	**2019**	**2020**	**2021**	**2022**	**2023**	**Total**
The World Bank- ECE Project	IDA credit						$ 54 Million
Global Partnership for Education (GPE)	Multiplier Grant						$ 10 Million
The World Bank – Higher Education Project	IDA credit	$ 10 mn.	$ 10 mn.	$ 5 mn.	$ 2.2 mn.	0	$ 27.2 Million
UNICEF	Technical Support	$ 1 mn.	$ 1 mn.	$ 1 mn.	$ 1 mn.	$ 1 mn.	$ 5 mn.
Other UN agencies (UNESCO, UNODC, UNFPA & UNDP)	Technical Support	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 2.25 Million
Total							$ 97.45 million

Annex 1

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- URAZMETOVA, Mrs. Dilorom, Project Coordinator of the 4th Direction "Development of Social Sphere", Development Strategy Centre, Tashkent.

Ministries and agencies:

- Cabinet of Ministers of the Republic of Uzbekistan
- State Inspection for Quality Supervision of Education under the Cabinet of Ministers of the Republic of Uzbekistan
- Ministry of Preschool Education of the Republic of Uzbekistan
- Ministry of Public Education of the Republic of Uzbekistan
- Ministry of Higher and Secondary Specialised Education of the Republic of Uzbekistan
- Ministry of Finance of the Republic of Uzbekistan
- Ministry of Economy of the Republic of Uzbekistan
- Ministry of Health of the Republic of Uzbekistan
- Ministry of Employment and Labour Relations of the Republic of Uzbekistan
- State Statistics Committee of the Republic of Uzbekistan
- Centre of Professional Education, MoHSSE
- Chamber of Commerce and Industry of the Republic of Uzbekistan
- Centre for Economic Research, Tashkent
- Central Council of Education

International organisations:

- ADB, Tashkent
- EU Delegation, Tashkent
- UNICEF, Tashkent
- UNESCO, Asia-Pacific Regional Office
- UNESCO, Tashkent.
- USAID, Tashkent
- World Bank, Section Europe and Central Asia
- PROMAN S.A Consulting Company, Luxembourg

State agencies:

- Development Strategy Centre, Tashkent
- Republican Centre for Education
- Centre for Professional Orientation and Psychological and Pedagogical Diagnosis of Children under MoPE
- Retraining and In-Service Institute of Managers and Specialists of System of Public Education named after A. Avloni
- Barkamol Avlod Republican Centre, Tashkent

NGOs and Research Institutions:

- Republican Charitable Foundation “Makhalla, Tashkent
- DGP Research and Consulting, Tashkent

Annex 2: List of literature used in developing the Education Sector Plan

AMBASZ, Diego (2017): Disclosable Version of the ISR - Modernizing Higher Education Project - P128516 - Sequence No : 03 (English). Washington, D.C.: World Bank Group.

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GOVERNMENT of Republic of Uzbekistan – UNICEF Programme of Cooperation for 2018 (2018a): 2018 Annual Work Plan, Ministry of Preschool Education.

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UNICEF (2017): Policy Review of Preschool Education in Uzbekistan. May 2017. Tashkent: UNICEF.

UNICEF (2017a): Development of the National Quality Education Conceptual Framework and Design of its Monitoring System. June 2017. Tashkent: UNICEF.

UNICEF (2017b): Guidelines for designing and conducting simulation exercises (SIMEX) in schools. Tashkent: UNICEF.

UNICEF (2017c): Secondary School Emergency Preparedness Plan Guidelines & Workbook. Enhancing school-based disaster risk reduction and monitoring capacity in Uzbekistan. Tashkent: UNICEF.

UNICEF (undated, pres. 2017): ECCE Monitoring in Uzbekistan: Gap Analysis, Needs Assessment, Recommendations for Improvement. Tashkent: UNICEF.

UNICEF (undated a, pres. 2017): Gaps and Limitations in Teacher-Related Legislation in Uzbekistan. Some Recommendations for Addressing Limitations. Draft Report. Tashkent: UNICEF.

UNICEF (undated b, pres. 2017): Policy Review of Inclusive Education in Uzbekistan: Draft Summary Report. Tashkent: UNICEF.

UNICEF (undated c, pres. 2017): Information Package on the Progress of the Joint Programme of Collaboration Between the Ministry of Public Education and UNICEF. Tashkent: UNICEF.

UNICEF (undated d, pres. 2017): Public-Private Partnerships in Early Childhood Education: International Experience and Lessons for Uzbekistan. Tashkent: UNICEF.

UNICEF (undated e, pres. 2017): Mobilizing Additional Resources for Education Sector Financing, especially For Expanding Quality Preschool Education in Uzbekistan. Discussion Paper. Tashkent: UNICEF.

UNICEF (undated, pres. 2017): ECCE Monitoring in Uzbekistan: Gap Analysis, Needs Assessment, Recommendations for Improvement. Tashkent: UNICEF.

UNICEF (undated a, pres. 2017): Gaps and Limitations in Teacher-Related Legislation in Uzbekistan. Some Recommendations for Addressing Limitations. Draft Report. Tashkent: UNICEF.

UNICEF (undated b, pres. 2017): Policy Review of Inclusive Education in Uzbekistan: Draft Summary Report. Tashkent: UNICEF.

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UNICEF (2018b): Developing the Education Sector Plan (ESP) 2018-2022 of Uzbekistan. Situation Analysis of the Education Sector in Uzbekistan. Report. 24 May 2018.

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Decrees/Resolutions of the President of the Republic of Uzbekistan:

- 29.12.2016: On measures of further improvement of the preschool education system in 2017-2021 (#2707).
- 27.07.2017: On further improvement of the activities of the Fund of the President of the Republic of Uzbekistan "Eisteddfod" for the professional development of promising young pedagogical and scientific personnel.
- 28.07.2017: On measures to further advance participation of industries and economic sectors in improving the quality of training of specialists with higher education.
- 01.08.2017: On measures for fundamental enhancement of public support system of people with disabilities.
- 08.08.2017: On priority measures to ensure accelerated socio-economic development of regions (#3182).
- 09.08.2017: On the organisation of special correspondence departments on pedagogical directions in higher educational institutions [+ Appendix No. 1] (#3183).
- 09.09.2017: On measures for fundamental improvement on the preschool education system (#3261).
- 14.09.2017: On measures to develop further activities to provide non-governmental educational services (#3276).
- 26.09.2017: On measures to further improve the system of training teachers, retraining and upgrading the skills of public education workers (#3289).
- 30.09.2017: On Advancement of activities of the Ministry of Public Education of the Republic of Uzbekistan (#3304).
- 22.01.2018: State Programme: On implementation of the National Action Strategy on Five Priority Development Areas of the Republic of Uzbekistan 2017-2021 in the Year of Support of Active Entrepreneurship, Innovative Ideas and Technologies. Annex to Decree #5308.
- 17.07.2018: Reform Agenda for the public education system of the Republic of Uzbekistan, identified by the President of the Republic of Uzbekistan for the public education system during the special meeting with the Cabinet of Ministers on July 17, 2018.

Decrees/Resolutions of the Cabinet of Ministers of the Republic of Uzbekistan:

- 15.08.2014: On retraining and professional development of public education personnel (#34) [including Annexes 1-8].
- 07.04.2016: On attestation procedure for pedagogical personnel of pre-school, general secondary, secondary special, vocational and extracurricular government education institutions (#107).
- 15.03.2017: On approval of the regulation on general secondary education (#140).
- 06.04.2017: On approval of the State Educational Standards for General Secondary, Secondary Specialised and Vocational Education (#187).
- 18.07.2017: On the activity of State Inspectorate for Education Quality Control under the Cabinet of Ministers of the Republic of Uzbekistan (#515).
- 19.07.2017: On improvement of activities of preschool institutions (#732).

- 01.12.2017: On approval of the Regulations on the Ministry of Public Education of the Republic of Uzbekistan and the charters of some subordinate organisations (#961).

Annex 3

List of key consultations and workshops conducted in the process of developing the Education Sector Plan

1. In-depth consultations with key partners (30 April-18 May 2018)
2. Validation workshop of the Situation Analysis, LEG Meeting (17 May 2018)
3. Meeting of working groups on 7 sub-sectors of education (11-19 July 2018)
4. Stakeholders Workshop on Education Sector Plan development (24-26 July 2018)
5. Presentation and discussion of ESP strategic vision and key aspects of its implementation, LEG Meeting (08 August 2018), Miran International Hotel

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Lists of key workshop participants

Validation workshop of the Situation Analysis, LEG Meeting, 17 May 2018, UNICEF Office, Tashkent

#	Name	Organisation and position
1	Mr. Ulugbek Inoyatov	Minister of Public Education, Chair of LEG
2	Mr. Dilshod Kenjaev	Deputy Minister of Public Education
3	Mr. Abdurakhim Nasirov	MoPE, Chief of Main Department
4	Mr. Khumoyun Rashidov	MoPE, Specialist of International Department
5	Mr. R. Matkurbanov	MoPE, In-Service Institute named after Avloni, Pro-Rector
6	Ms. Zinaida Kim	MoPE, Specialist of In-service Institute named after Avloni
7	Mr. M. Asanov	MoPE, Director of Republican Education Centre
8	Mr. Usman Sharifkhodjaev	State Inspection for Supervision of Quality in Education under the Cabinet of Ministers, Deputy Director
9	Mr. Ayubkhon Radjiev	State Inspection for Supervision of Quality in Education under the Cabinet of Ministers, Head of department
10	Mr. F Esanboev	Ministry of Higher Education
11	Mr. Adkham Eshchanov	Ministry of Finance, Specialist on Department on Preschool Financing
12	Mr. Shukhrat Isakulov	Institute of Social Researches, Specialist
13	Mr. Khudaynazar Kurbanov	Centre of Professional Education, Chief of international Department
14	Ms. Khuriya Khudoyzunova	State Committee on Statistics, Specialist
15	Ms. Lazokat Turikova	Central Council Teachers Union, Specialist
16	Ms. Irina Grosheva	MoPSE, Specialist
17	Ms. Elena Cay	MoPSE, Specialist
18	Ms. Lana Schay	CER, Specialist

19	Mr. Shukhrat Saidiev	Centre of Strategic Development, Project leader
20	Ms. Dilorom Urazmetova	Centre of Strategic Development, Coordinator
21	Dr. Joachim Friedrich Pfaffe	PROMAN, Team Leader
22	Mr. Jean Luis Veaux	EU Delegation
23	Mr. Akmal Rustamov	EU Delegation
24	Mr. Bakhtiyor Namazov	UNESCO, Education Officer
25	Mr. Kamolkhon Inomkhodjaev	UNRC, Specialist
26	Ms. Jamilya Gulyamova	Deputy Director, British Council
27	Mr. Sascha Graumann	UNICEF, National Representative
28	Ms. Deepa Sankar	UNICEF, Chief of Education
29	Ms. Yulia Narolskaya	UNICEF, Education Officer
30	Ms. Vazira Nazarova	UNICEF, Preschool Education Officer
31	Ms. Umida Aslanova	UNICEF, Education Consultant
32	Ms. Eleonora Sadirova	UNICEF, Education Consultant
33	Ms. Kamila Alimjanova	UNICEF, Education Associate

Meeting of working groups on 7 sub-sectors of education, 11-19 July 2018, UNICEF Office, Tashkent

#	Name	Organisation and position
Group on Preschool Education		
1	Ms. Elelena Ten	Head of main department on organisation of activities of preschool educational institutions
2.	Ms. Elena Cay	Senior specialist, of main department on organisation of activities of preschool educational institutions
3	Ms. Natalya Kim	Main specialist, department on coordination of development of teaching methodological materials and organisation of methodological support
4	Mr. Sh. Pardaev	Chief of finance department
5	Ms. Irina Grosheva	Main specialist, international department
6	Ms. Umida Mukhitdinova	Head of section on coordination of activities of special preschool institutions
7	Mr. K. Ishpulatov	Rector of In-service Institute
8	Mr. Jasur Nurmatov	Main specialist, State Supervision on monitoring quality of education
Group on General Secondary Education		
1	Mr. Tojimurod Tursunov	Leading specialist, department on improvement of state educational standards and monitoring the quality of education
2	Mr. Khakimboy Samandarov	Main inspector of department of general secondary education
3	Mr. Ilkhom Sirodjev	Main economist, department on finance
4	Mr. Asliddin Odilov	Chief of department on attestation and accreditation, State Supervision on monitoring quality of education
Group on Professional Education		
1	Mr. Khudaynazar Kurbanov	Chief of International Department, CPE

#	Name	Organisation and position
2	Mr. Sharifbay Ergashev	Deputy Director, Institute of Innovative development, retraining and qualification enhancement of pedagogical staff under CPE
3	Ms. Gulbakhor Djabbarova	Head of department on attestation of secondary special, professional institutions, State Supervision on monitoring quality of education
Group on Higher Education		
1	Mr. Kamol Tursunov	Chief of Department on retraining and qualification Enhancement, MoHSSE
2	Mr. Jamshid Khaliov	Specialist, MoHSSE
3	Ms. Barno Abdullaeva	Vice Rector, Tashkent State Pedagogical University, under MoHSSE
4	Mr. Shakhzodbek Kurbaniyazov	Head of department on attestation of higher educational institutions, State Supervision on monitoring quality of education
Group on Retraining and Qualification Enhancement		
1	Ms. Malokhat Azamova	Vice Rector, In-Service Institute (preschool education)
2	Ms. Mavluda Rustamova	Senior pedagogue, In-Service Institute (preschool education)
3	Ms. Malika Fayzullaeva	Senior pedagogue, In-Service Institute (preschool education)
4	Ms. Zinaida Kim	Senior pedagogue, In-Service Institute named after Avloni (general secondary education)
5	Mr. Shahmsiddin Usanov	Specialist, State Supervision on monitoring quality of education
Group on Children with Special Needs in Education (SEN)		
1	Ms. Umida Mukhitdinova	Head of section on coordination of activities of special preschool institutions
2	Ms. Dilfuza Khasanova	Leading specialist, department on coordination of activities of special preschool institutions
3	Ms. Gulbakhor Djabbarova	Head of department on attestation of secondary special, professional institutions, State Supervision on monitoring quality of education
Group on Non-Formal Education		
1	Ms. Gulnora Muradova	Main specialist, MoELR
2	Mr. Murodjon Karabaev	Head of department on extracurricular activities, MoPE
3	Mr. Doniyor Ermatov	Director of Republican Centre “Barkamol Avlod”
4	Mr. Asliddin Odilov	Chief of department on attestation and accreditation, State Supervision on monitoring quality of education
Specialist meetings on financial issues		
1	Mr. Adkham Eshchanov	Specialist on financing preschool education, MoF
2	Mr. Mamed Khusainiv	Specialist on financing higher education, MoPE
3	Mr. Abdurakhim Nasirov	Chief of main department, MoPE
4	Mr. Todjimurod Tursunov	Leading specialist, department on improvement of state educational standards and monitoring the quality of education, MoPE
5	Mr. Ilkhom Sirodjev	Main economist, department on finance, MoPE
6	Mr. Sh. Pardaev	Chief of finance department, MoPSE

Stakeholders Workshop on Education Sector Plan development, 24-26 July 2018,

#	Name	Organisation and position
Ministry of Preschool Education		
1	Ms. Elena Cay	Senior specialist, of main department on organisation of activities of preschool educational institutions, member of Working Group #1
2	Ms. Irina Grosheva	Main specialist, international department, member of Working Group #1
Ministry of Public Education		
3	Mr. Alisher Umarov	Deputy Minister of Public Education
4	Mr. Abdukarim Nasirov	Chief of Main Department
5	Mr. Murodjon Karabaev	Head of department
6	Prof. Dr. Nargiz Rakhmankulova	Rector of In-Service and Retraining Institute of Public Education Staff named after A. Avloni
7	Mr. Tojimurod Tursunov	Leading specialist, department on improvement of state educational standards and monitoring the quality of education, member of Working Group #2
8	Ms. Zinaida Kim	Senior pedagogue, In-Service Institute named after Avloni (general secondary education), member of Working Group #7
9	Mr. Doniyor Ermatov	Director of Republican Centre “Barkamol Avlod”, member of Working Group #7
Ministry of Higher and Secondary Specialised Education		
10	Mr. B. Khaydarov	Lecturer, Regional In-Service Centre, under Tashkent State Pedagogical University named after Nizamiy
11	Ms. M. Tashpulatova	Pedagogue, Tashkent State Pedagogical University named after Nizamiy, MoHSSE
12	Mr. A. Toshev	Senior pedagogue, Regional In-Service Centre, under Tashkent State Pedagogical University named after Nizamiy
13	Mr. Khudaynazar Kurbanov	Chief of International Department, CPE, member of Working Group #4
14	Mr. Sharifbay Ergashev	Deputy Director, Institute of Innovative development, retraining and qualification enhancement of pedagogical staff under CPE, member of Working Group #4
Ministry of Employment and Labour Relations		
15	Mr. F. Kosimov	Chief of department
16	Ms. D. Sultanova	Main specialist
State Inspection for Quality Supervision of Education under the Cabinet of Ministers		
17	Mr. Sh. Nematov	Specialist
18	Mr. Asliddin Odilov	Chief of department on attestation and accreditation, State Supervision on monitoring quality of education, member of Working Groups #2 and #5
19	Ms. Gulbakhor Djabbarova	Head of department on attestation of secondary special, professional institutions, State Supervision on monitoring quality of education, member of Working Groups #4 and #7

#	Name	Organisation and position
Centre for Economic Research		
20	Ms. Lana Chkay	Scientific Specialist for Social Sphere
UNICEF		
21	Dr. Joachim F. Pfaffe	Consultant
22	Dr. Deepa Shankar	Chief of Education
23	Vazira Nazarova	Primary Education Officer
24	Umida Islamova	Consultant
25	Sherzod Hoshimov	Consultant
26	Muazam Ismailova	Consultant
27	Eleonora Sadirova	Consultant
28	Kamila Alimdjanova	Programme Associate

Presentation and discussion of ESP strategic vision and key aspects of its implementation, LEG Meeting, 08 August 2018, Miran International Hotel

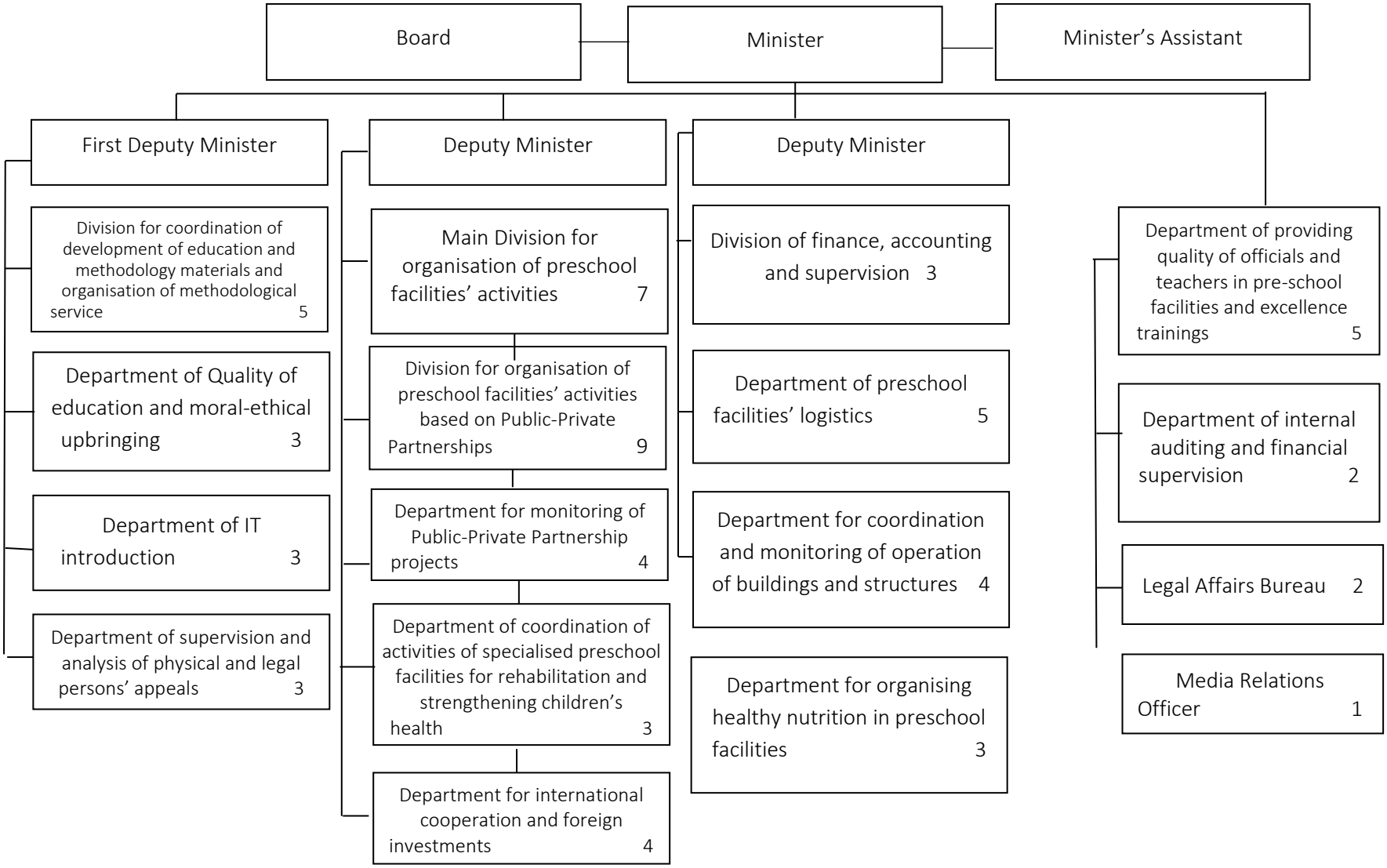
#	Name	Organisation and position
1	Mr. Alisher Umarov	First Deputy Minister of Public Education
2	Mr. Tuygun Aglamov	MoPE, Head of International Department
3	Mr. Tajimurod Tursunov	MoPE, Specialist
4	Mr. Igor Mitishka	MoPE, Adviser
5	Mr. Rustam Karimjonov	MoPE, Adviser
6	Mr. Sardor Ramazon	MoPE, Adviser
7	Ms. Z. Shamsieva	MoPE, Republican Education Centre, Specialist
8	Mr. Asliddin Odilov	State Supervision on Monitoring Quality of Education, Head of Department
9	Mr. Boysun Nazarov	State Supervision on Monitoring Quality of Education, Specialist
10	Mr. Sharifboy Ergashev	Institute of Innovative development, retraining and qualification enhancement of pedagogical staff under CPE, Deputy Director
11	Ms. Gulnora Murodova	Ministry of Employment and Labour Relations, Specialist
12	Mr. Kim Oeunsuck	Ministry of Employment and Labour Relations, Adviser
13	Mr. Khudaynazar Kurbanov	Centre of Professional Education, Chief of international Department
14	Ms. Khuriya Khudoyzunova	State Committee on Statistics, Specialist
15	Mr. Jamil Yaratov	Central Council of Education, Science and Culture, Specialist
16	Ms. Irina Grosheva	MoPSE, Specialist
17	Ms. Sh. Turgunbaev	Chamber of Commerce and Industry of the Republic of Uzbekistan, Specialist
18	Ms. Lana Schay	CER, Specialist
19	Mr. T. Kholikov	Republican Charitable Foundation “Makhalla”
20	Mr. Khurshid Zafari	DGP Research and Consulting, Deputy CEO
21	Mr. Akmal Vasiev	DGP Research and Consulting, CEO
22	Ms. U. Ibatkhodjaeva	Ministry of Economy, Specialist
23	Ms. Tursunkhodjaeva	ICT News, Reporter

24	Mr. Sherzod Abraev	State Statistics Committee, Specialist
25	Ms. Aziza Kuchimova	USAID, Specialist
26	Mr. Otabek Ismailov	USAID, Intern
27	Mr. Sascha Graumann	UNICEF Representative
28	Ms. Jamilya Gulyamova	British Council, Deputy Director
29	Ms. Inoyat Sadikova	World Bank
30	Mr. Ikboljon Akhadjanov	World Bank
31	Mr. Akmal Rustamov	EU Delegation
32	Ms. Farida Djumabaeva	ADB
33	Mr. Bakhtiyor Namazov	UNESCO, Education Officer
34	Dr. Joachim Friedrich Pfaffe	PROMAN, Team Leader (contracted as Consultant for UNICEF)
35	Ms. Deepa Sankar	UNICEF, Chief of Education
36	Ms. Vazira Nazarova	UNICEF, Preschool Education Officer
37	Ms. Umida Aslanova	UNICEF, Education Consultant
38	Ms. Muazam Ismailova	UNICEF, Preschool Education Consultant
39	Ms. Eleonora Sadirova	UNICEF, Education Consultant
40	Ms. Nargiza Mamasadikova	UNICEF, Health Associate

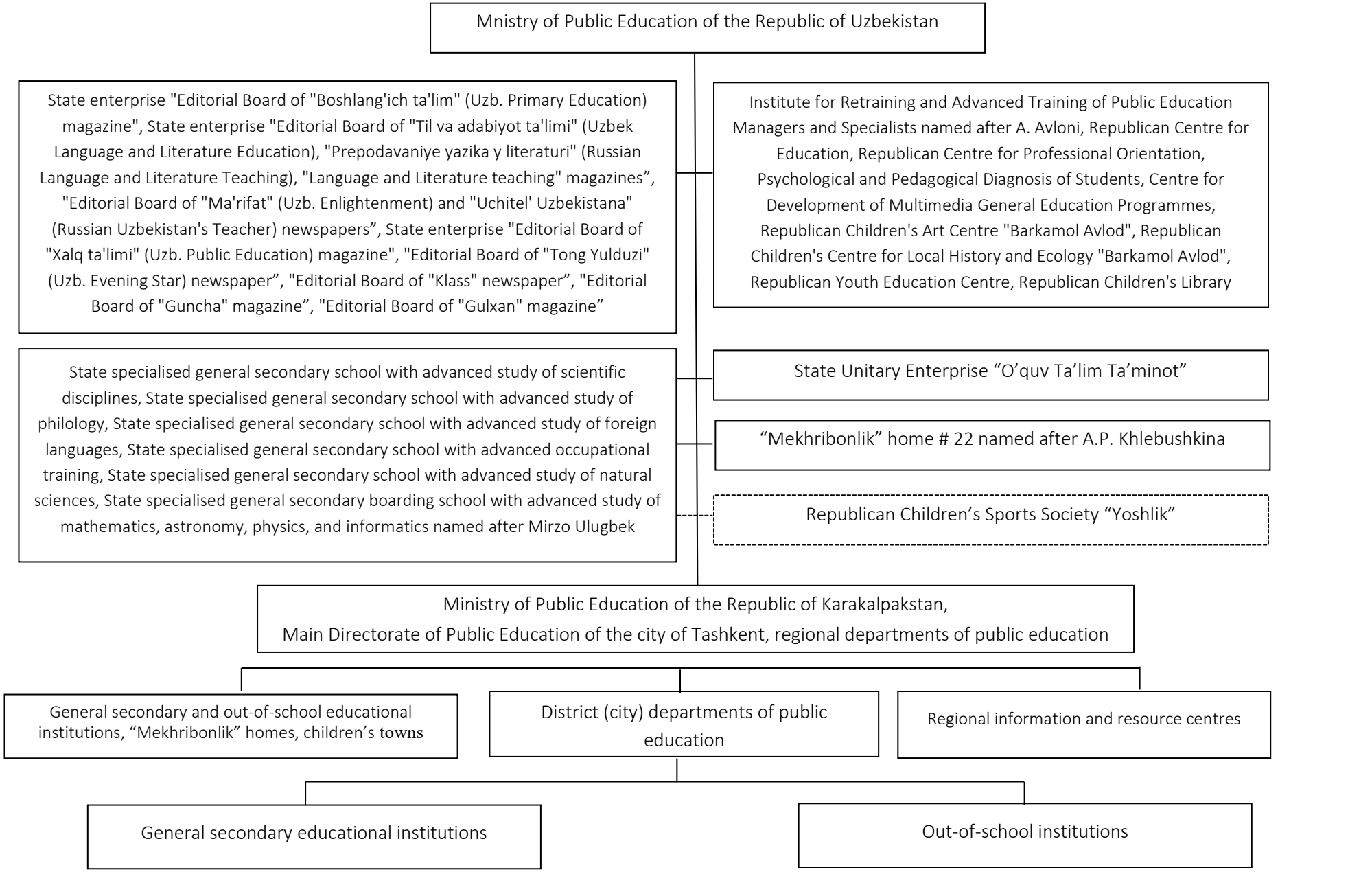
APPENDIX 4:

Institutional and organisational structures

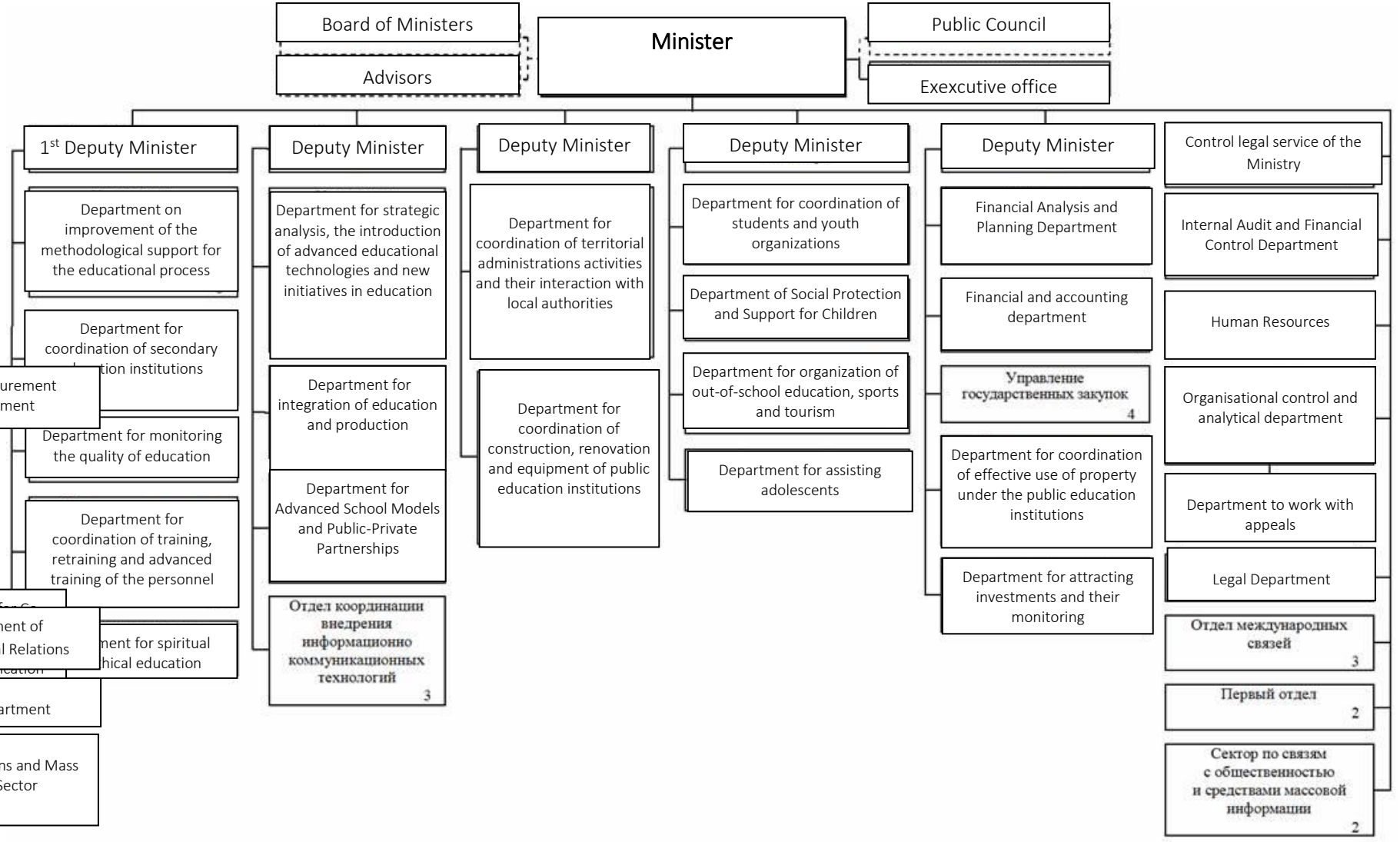
Structure of the Ministry of Preschool Education



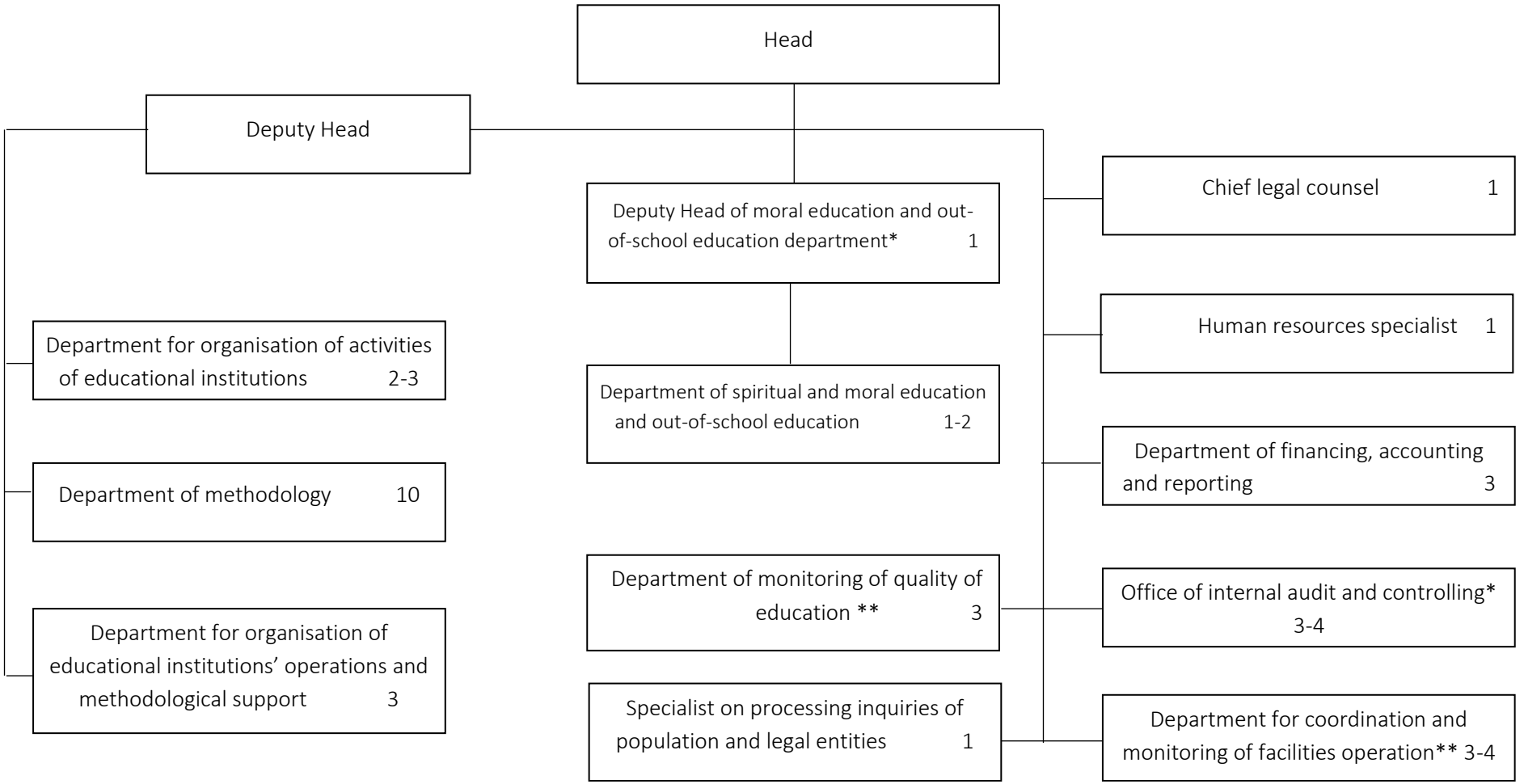
Structure of the Ministry of Public Education



Structure of the Central Office of the Ministry of Public Education of the Republic of Uzbekistan



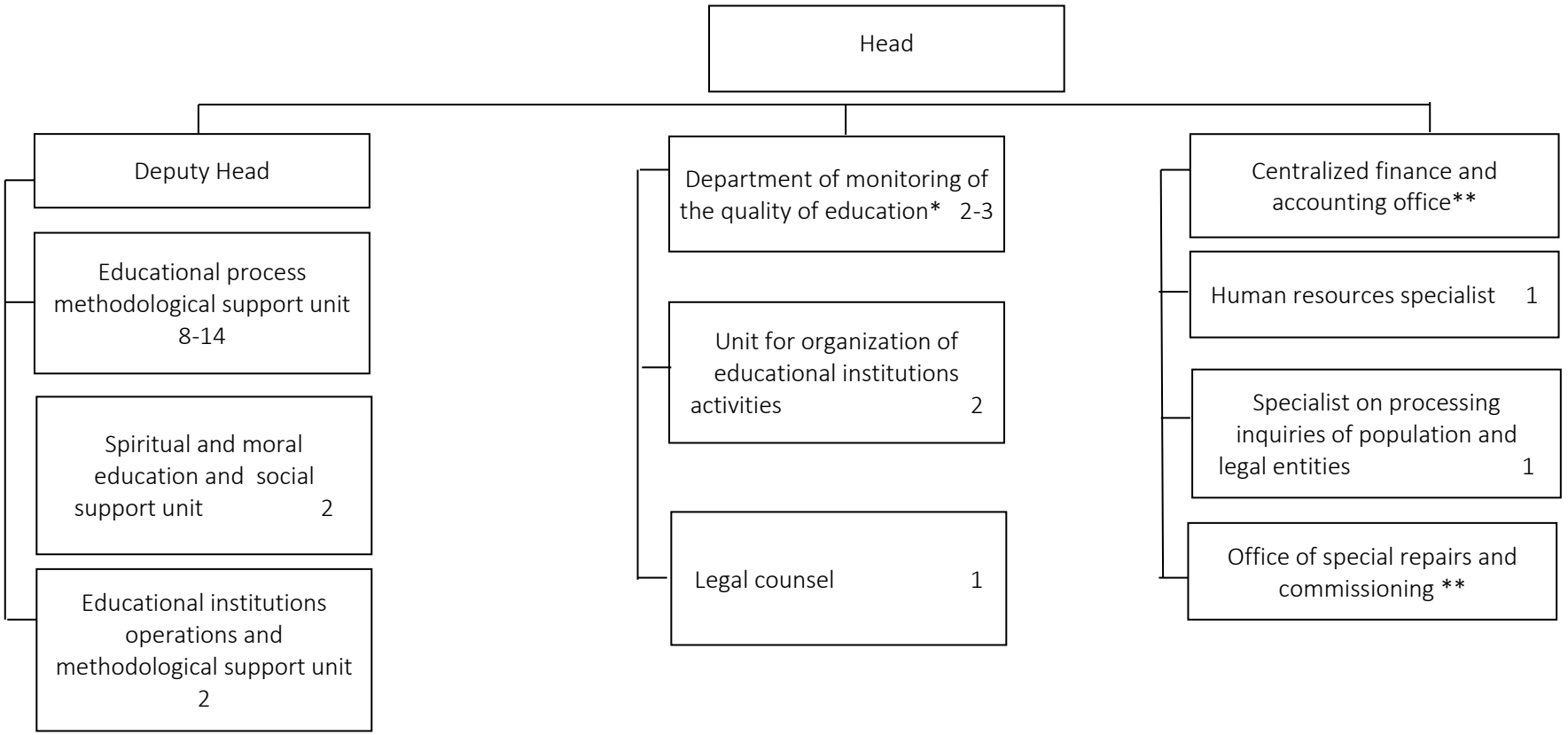
Model structure of regional departments of public education



** In Jizzakh, Navoiy, Sirdarya and Khorezm regions the functions of a methodologist of out-of-school education are fulfilled by the head of department.*

***) Positions are included in the list of occupations of the Ministry of Public Education of the Republic of Uzbekistan; Maximum total headcount – 440 FTEs, including management – 220 FTEs, and methodologists – 220 FTEs*

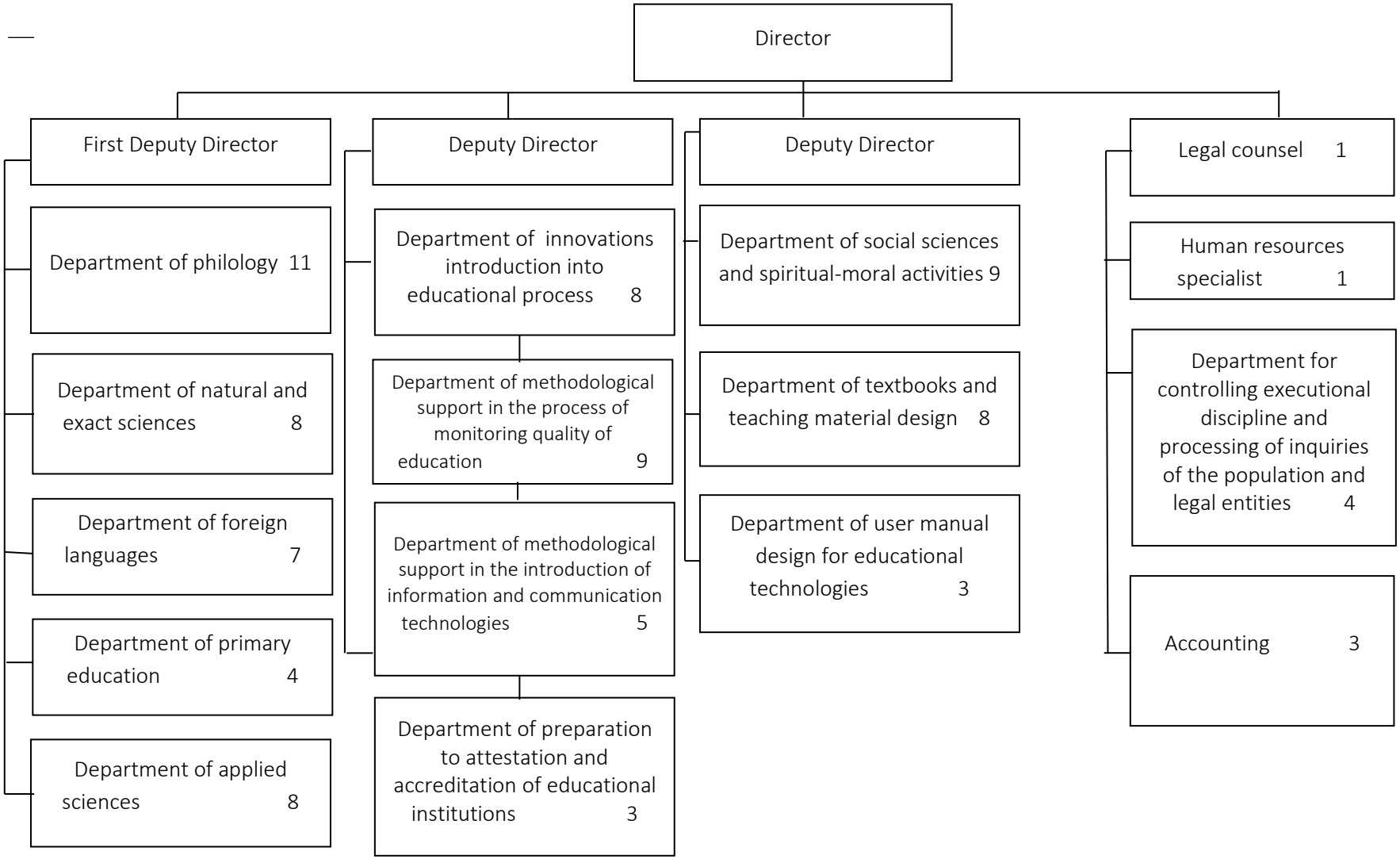
Model structure of district (city) branches of public education



**) Positions are included in the list of occupations of the Ministry of Public Education of the Republic of Uzbekistan*

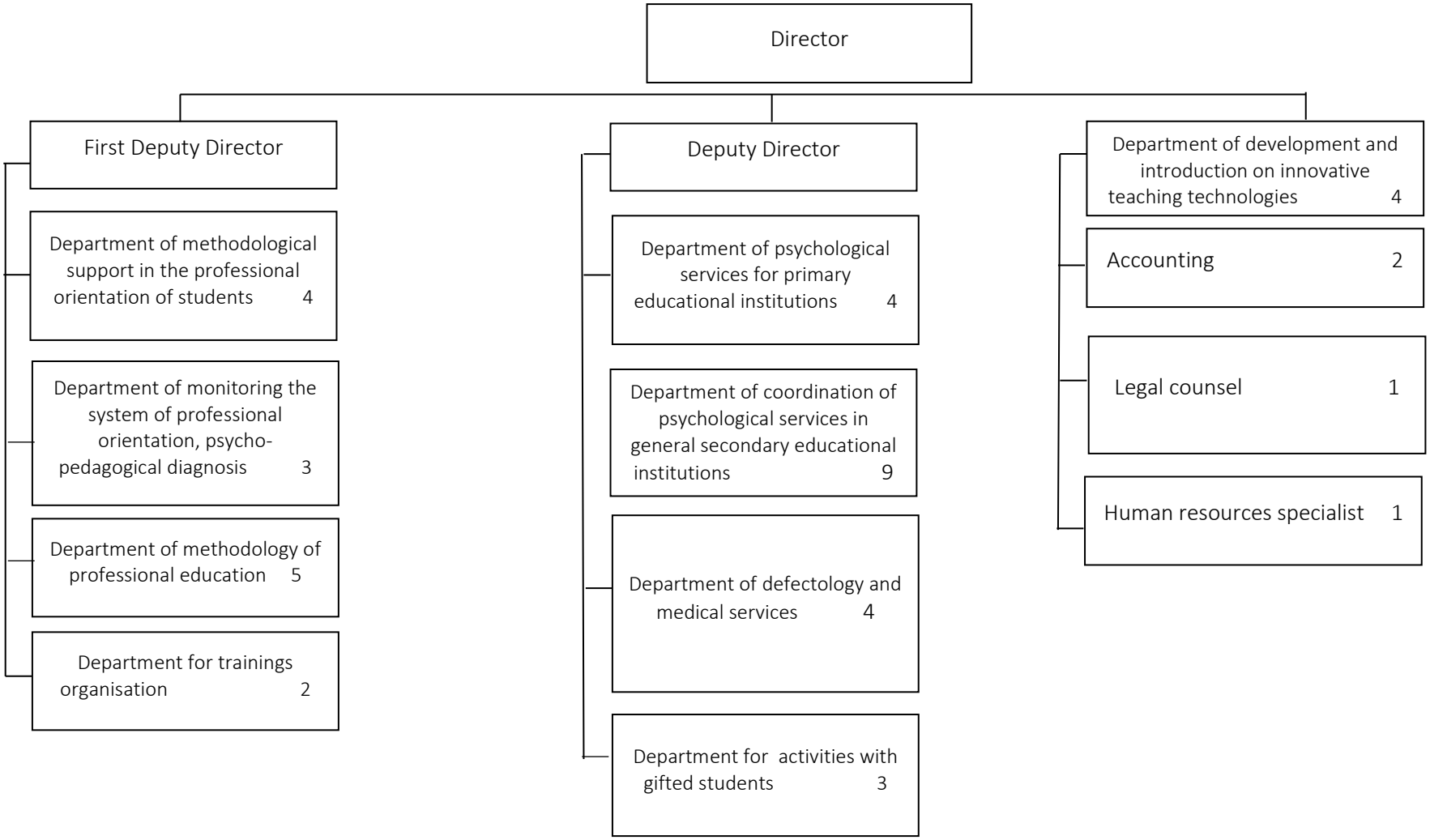
***) The headcount is to be determined based on the normative legal acts. Maximum total headcount (without personnel of the Centralised finance and accounting office, Office of special repairs and commissioning, and additional personnel) – 5163 FTEs, including management – 2000 FTEs, and methodologists – 3163 FTEs*

Structure of the Republican Centre for Education of the Ministry of Public Education



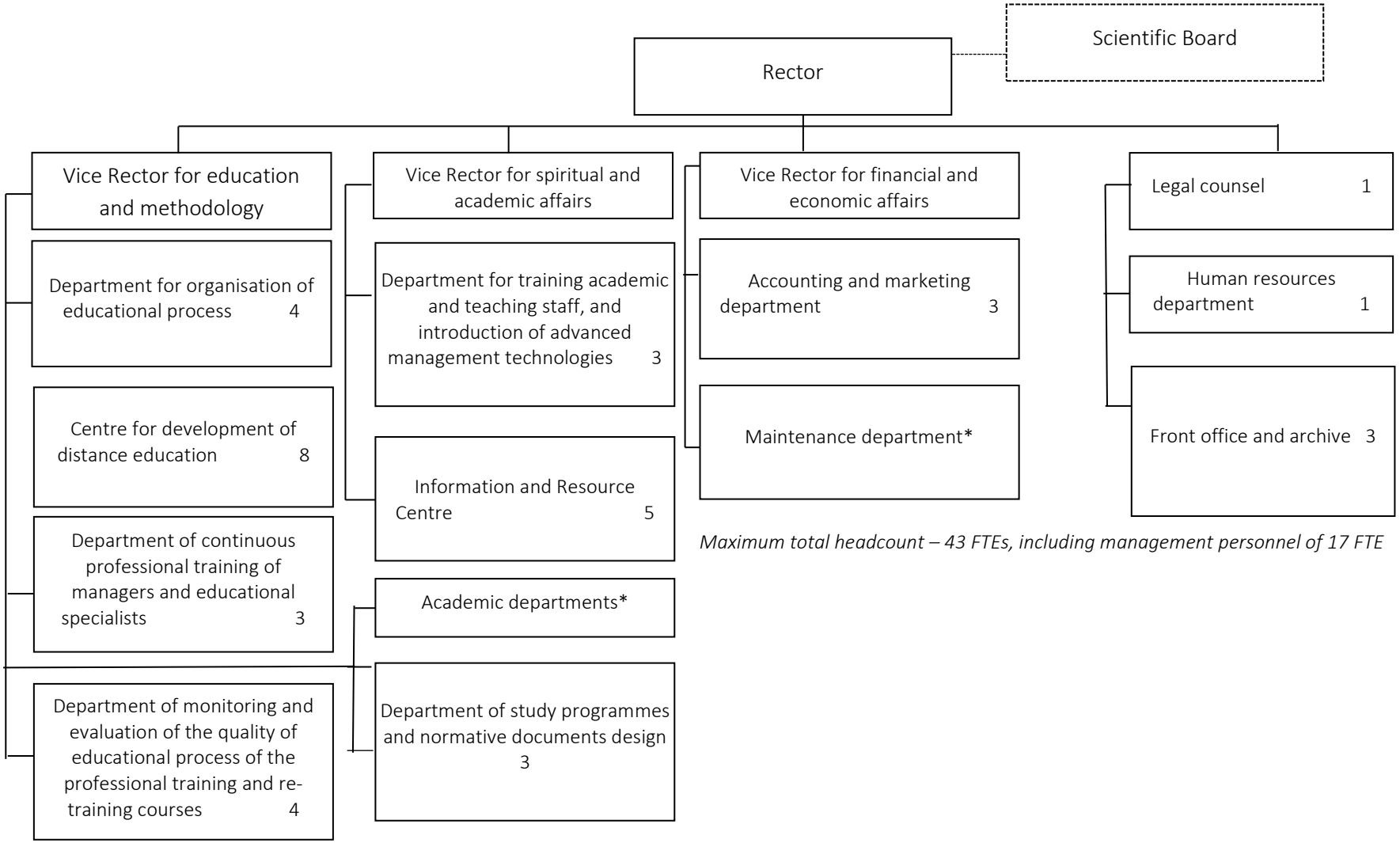
Maximum total headcount – 103 FTEs, including management personnel of – 23 FTEs

Structure of the Republican Centre for Professional Orientation, Psychological and Pedagogical Diagnosis under the Ministry of Public Education



Maximum total headcount – 41 FTEs, including management personnel of –16 FTEs

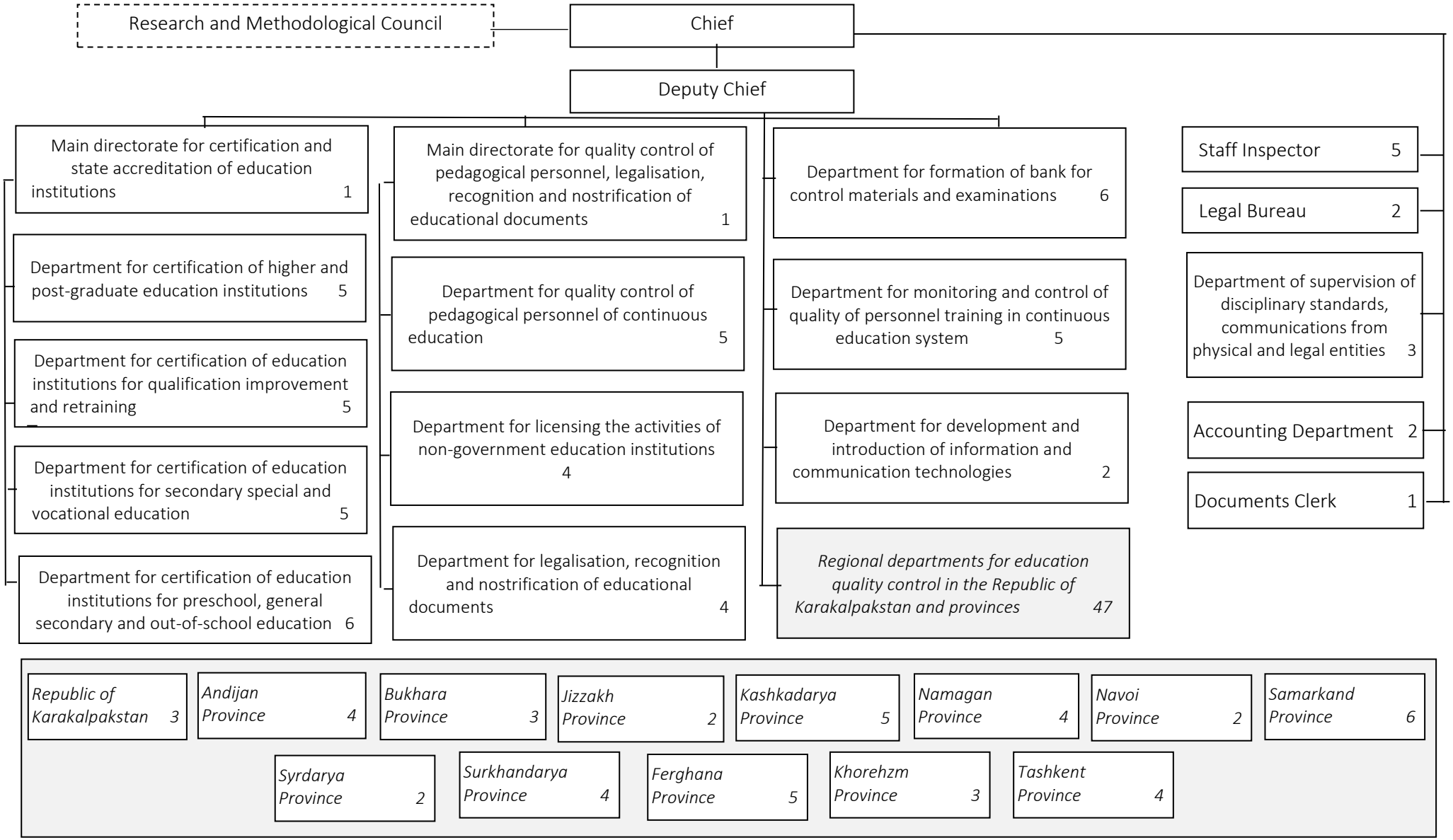
Structure of the Institute of retraining and advanced training of public education managers and specialists named after Abdulla Avloni



Maximum total headcount – 43 FTEs, including management personnel of 17 FTE

**Headcount of academic and teaching staff, as well as service personnel are determined according to the procedures established by law.*

Structure of the State Inspectorate for education quality control under the Cabinet of Ministers of the Republic of Uzbekistan



Total number of management personnel:108

Structure of the Professional Education System