Uzbekistan Education Sector Analysis: 2021

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December 2021

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Contents

List of Tables, Charts and Figures

Abbreviations / Acronyms	
ADB	Asian Development Bank
CMR	Child Mortality Rate
CTR	Children: Toilet Ratio
CWD	Children with Disabilities
CWSEN	Children with Special Education Needs
CWSN	Children with Special Needs
C4D	Communication for Development
DL	Distance Learning
ECAR	Europe and Central Asia Region
ECD	Early Childhood Development
ECE	Early Childhood Education
ECCE	Early Childhood Care and Education
EDC	Early Development Center
ELDS	Early Learning Development Standards
EMIS	Education Management Information System
EQAF	Education Quality Assurance Framework
EQAS	Education Quality Assurance System
ESA	Education Sector Analysis
ESP	Education Sector Plan
GDP	Gross Domestic Product
GER	Gross Enrollment Ratio
GPE	Global Partnership for Education
GPI	Gender Parity Index
GOU	Government of Uzbekistan
GRP	Gross Regional Product
GSE	General Secondary Education
HE	Higher Education
HEI	Higher Education Institutions
ICT	Information and Communication Technology
IE	Inclusive Education
IEA	International Association for the Evaluation of Educational Achievement
ILO	International Labour Organization
IMR	Infant Mortality Rate
ISED	International Standard Classification of Education
ISR	Implementation Status & Results Report
JMP	Joint Monitoring Programme
KAP	Knowledge, Attitudes and Practices
LEG	Local Education Group
LFPR	Labour Force Participation Rate

LP	Learning Passport
L2CU	Listening to the Citizens of Uzbekistan
MELE	Measure of Early Learning Environment
MELQO	Measuring Early Learning Quality and Outcomes
MODEL	Measure of Development of Early Learning
MDG	Millennium Development Goals
MOOC	Massive Open Online Courses
MOF	Ministry of Finance
MOH	Ministry of Health
MOHSE	Ministry of Higher and Secondary Specialized Education
MOPE	Ministry of Public Education
MOPSE	Ministry of Preschool Education
NAS	National Assessment System
NCF	National Curriculum Framework
NEET	Not in Education, Employment or Training
NOC	National Occupational Classifications
NQF	National Qualification Framework
OECD	Organization for Economic Co-operation and Development
OOSC	Out of School Children
PAD	Project Appraisal Document
PE	Professional Education
PISA	Programme for International Students Assessment
PPP	Public-Private-Partnership
PTR	Pupil: Teacher Ratio
REC	Republican Education Center
RPM	Regional Peer Mentors
SDG	Sustainable Development Goals
SISEQ	State Inspectorate for the Supervision of Education Quality
SRI	School Readiness Instrument
SSC	State Statistical Committee
SSCRWG	Subject Specific Curriculum Revision Working Group
STEM	Science, Technology, Engineering and Mathematics
TIMSS	Trends in Mathematics and Science Study
TLM	Teaching Learning Materials
TPS	Teacher Professional Standards
TQF	Teacher Qualification Framework
TVET	Technical and Vocational Education and Training
UIS	UNESCO Institute for Statistics
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	U.S. Agency for International Development
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

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CHAPTER 1. INTRODUCTION

Government of Uzbekistan (GOU) has assigned high priority to education sector since its independence, though the major focus within education sector has always been on ensuring and maintaining high enrollment rates in basic education sector (grades 1-9, referred to as "General Secondary Education" [GSE] in the country). Uzbekistan has been able to maintain high enrollment rates in GSE compared to other developing countries in the world, and the average number of years of schooling has been consistently maintained at around 11-12 years in the past 30 years. With the near-universal school enrollments, Uzbekistan had by 2015, met the enrollment targets set by the Millennium Development Goals (MDG).

Since 2015, the global attention shifted from merely targeting to achieve primary enrollments to a more comprehensive approach towards increasing the access to all sub-sectors of education (including preschool education and post-secondary education) and enhancing the quality and learning levels at all levels of education as envisaged in the **Sustainable Development Goals (SDG) 4** related to Education. This was a tipping point for Uzbekistan as the country still have several unfinished or unaccomplished education sector targets as per the SDG 4.

In 2017, the President signed a decree On **Uzbekistan's Development Strategy 2017-2021** which approved the five-year strategic plan "*National Action Strategy on Five Priority Development Areas 2017-2021"*. Under the priority area 4, development of education was one of the sub-areas for development. In line with the Strategy, GOU had unleashed unprecedented reforms in education sector in all its sub-sectors. Government is now in the process of coming up with a new five-year sector strategy for education and to inform that, it is important to look at the education sector scenario as of now.

In 2018, the Government of Uzbekistan had also developed an **Education Sector Plan (ESP) 2019-2023** with extensive consultations with the Local Education Group (LEG), coordinated by UNICEF. The ESP 2019-2023 elaborated the sectoral priorities for all sub-sectors of education and developed an action plan for the government to follow during the period 2019-2023 and beyond. Now with around 3 years of its implementation, it is important to review the education sector scenario, particularly in the COVID19 times, and initiate appropriate amendments to plan better for now till the end of SDG period in 2030.

Since 2018, the Government of Uzbekistan (GOU) has introduced several path-breaking reforms in the economy as well as in education sector. While many of the reforms in education sector were in line with the vision and strategies in ESP 2019-2023, there were several other interventions that went beyond the vision of ESP 2019-2023. Accordingly, the GOU has been successful in attracting several bilateral agencies to invest in education sector in the country. Since 2018, there have been several studies conducted around the education sector issues in Uzbekistan that provides more insights into the education sector issues.

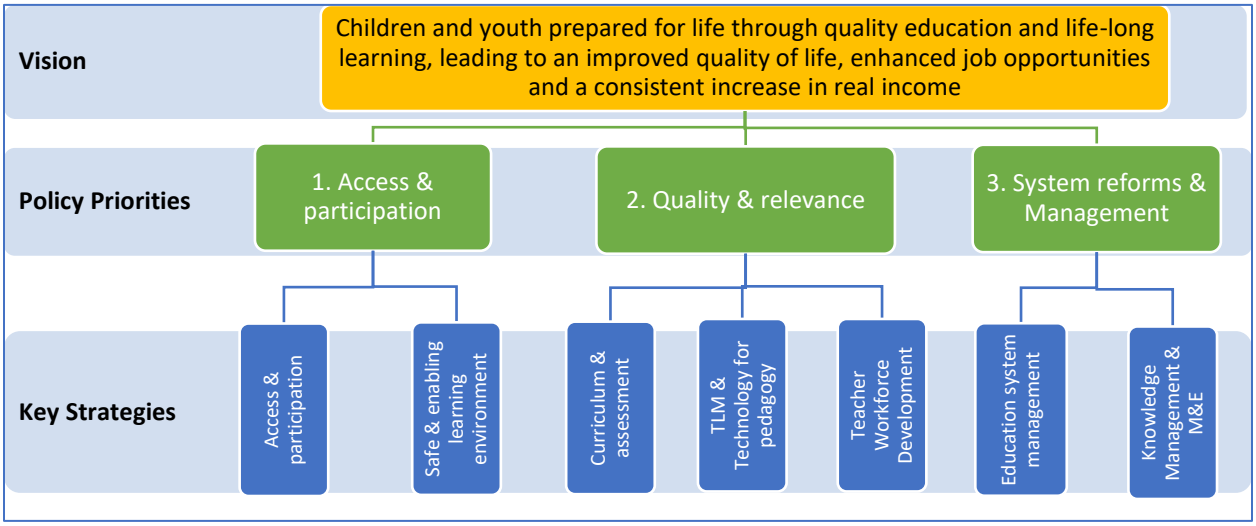
In October 2021, presidential elections were held in Uzbekistan and the incumbent President Shavkat Mirziyoyev won the elections and assumed office for the second term. In his opening address on November 6, 2021, President Mirziyoyev elaborated the priority areas for the next five years, and he emphasized that the issue of quality education and development will receive continued attention and for that the government will develop a new National Education programme[1].

[1] https://kun.uz/en/news/2021/11/06/shavkat-mirziyoyev-announce-the-new-uzbekistans-development-strategy

Given the new developments in the country, to inform the new GOU's plan to develop a "New Education programme", and to ensure that the Education Sector Plan 2019-2023 is reviewed and modified to reflect new priority programmes, it is important to do a detailed Education Sector Analysis (ESA).

This ESA aims to carry out a thorough review of the education sector – systemic reforms, interventions, and results in Uzbekistan in the past few years. It also aims to identify areas for priority actions for government in education sector and the potential strategies for doing so. This analysis will focus mainly on three sub-sectors of education: (i) Preschool Education (PSE); (ii) General Secondary Education (GSE); and (iii) Higher or Tertiary Education (HE). Within the sub-sectors, the policy areas, and strategic priorities, as set out in the Education Sector Plan 2019-2023 will be examined. See the ESP 2019-2023 priority areas and strategies below.

Chart 1. ESP 2019-2023. Vision, priorities, and strategic areas



Within the policy priorities, the outcomes will be analysed and through key strategies, the realisation of education sector outputs will be examined. The ESP2019-2023 had aligned its outcomes to that of Sustainable Development Goals 4 related to education. These include: (i) one-year pre-primary education before entering school and school readiness for young children; (ii) learning outcomes at the end of primary and secondary grades in core subjects; and (iii) enhanced equal opportunities to higher education. The analysis, wherever data is available, will be looking at status, trends and progress by gender and other equity and inclusion parameters. The Education Sector Analysis is organized in the following manner:

In Chapter 2, the context of the development of the education sector is looked at. This chapter has mainly three sections. In the first part, the macroeconomic context is examined and in the second section, an analysis of the demographic and social contexts is analysed. The third section of the chapter analyses the external efficiency of education in the country, mainly in terms of labour market outcomes.

In Chapter 3, an analysis of the situation in preschool Education is carried out. Ever since the Ministry of Preschool Education (MOPSE) was set up in late 2017, there has been systemic reforms in the sector, efforts to enhance access, create quality parameters and understand areas for further work through an evidence-based approach. The chapter will analyse the current scenario in terms of reforms in the sub-sector as well as the access, equity, and quality aspects.

In Chapter 4, the situation in Basic /school Education is looked at. Apart from an analysis of the current status of access, equity, and quality issues in basic education, the chapter also evaluates the progress in systemic reforms and efforts to enhance quality of education.

In Chapter 5 and 6, an analysis of the situation in Post-Secondary education (Professional Education and Higher Education) is carried out. Here again, the status of access, equity, and quality in the past few years are examined.

Chapter 7 looks at the public expenditure trends and patterns in education sector. Chapter 8 provides the overall recommendations for the education sector in the immediate future.

CHAPTER 2. CONTEXT OF THE DEVELOPMENT OF EDUCATION SECTOR IN UZBEKISTAN

Introduction

Uzbekistan is a double-landlocked country in Central Asia consisting of 12 regions (provinces), an autonomous republic (Republic of Karakalpakstan) and a stand-alone city (Tashkent). Nearly 51% of its 34.6 million people live in urban areas[2]. With a Gross Domestic Product (GDP) of US$ 58 billion in current prices in 2021 and a per capita GDP of US$ 1751[3], Uzbekistan is designated as a lower-middle-income country by the World Bank[4].

Uzbekistan is also country with steady growing population (growing at a rate of 1.48 percent per year) and the population is expected to increase over the next few decades until it peaks at 44.4 million people in 2070[5]. As per the UN Population Data base, in 2020, the total dependency ratio in the country was 97.9 per 100[6]. As a UNICEF (2018) Report[7] suggests, the country is currently at a stage of early demographic dividend and the window of demographic opportunity is expected to last for another 30 years. However, the demographic dividend is realized only when there is investment in human capital development, particularly in the education and skills development.

This chapter analyses the socio-demographic and macroeconomic contexts that have implications for the development of education sector and its outcomes in the country. This chapter has two main sections. In the first, the demographic and social development contexts are analyzed as they have a critical and direct impact on education policy. The demographic characteristics and social contexts determine the number of children to be educated at various stages as well as the social constraints the education system faces. The second section looks at the macroeconomic and public finance contexts. The evaluation of education systems' development prospects requires knowledge of the macroeconomic constraints a country faces and some understanding of its budgetary room for maneuver[8].

[2] source: https://stat.uz/ru/ofitsialnaya-statistika/demography
[3] https://www.worldbank.org/en/country/uzbekistan/overview#context
[4] https://data.worldbank.org/country/XN
[5] https://worldpopulationreview.com/countries/uzbekistan-population
[6] The dependency ratio is a demographic measure of the ratio of the number of dependents to the total working-age population in a country. As per the UN Population Data base, the total dependency ratio is the ratio of the population aged 0-24 and that aged 65+ to the population aged 25-64. They are presented as number of dependents per 100 persons of working age (25-64). Source: https://population.un.org/wpp/Graphs/1_Demographic%20Profiles/Uzbekistan.pdf.
[7] UNICEF (2018): "Generation 2030 Uzbekistan: Investing in Children and young people to reap the demographic dividend", UNICEF Uzbekistan.
[8] UNESCO, World Bank, UNICEF and GPE (2014): Education Sector Analysis, Methodological Guidelines Volume 1.

The Macroeconomic and Public Finance Contexts

In early 2017, the Government announced that a broad market-oriented reform programme to be implemented over the period of 2017-2021[9] and initiated several actions oriented towards social and economic transformation, with the long-term vision to become a middle-income country (from the currently lower-middle-income country status) by 2030. Uzbekistan's significant transformation has been characterized by introduction of several strategies, policies, laws and decrees, including structural reforms to strengthen the market economy, currency and tax reforms and key sectoral reforms.

One of the major steps was the decision in September 2017 to depreciate its currency, the Uzbek soum, by over 50 percent, allowing to converge the official rate with the then existing market exchange rates. 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.[10]

In the past decade or so, Uzbekistan's GDP grew both in nominal and constant prices. Most importantly, with concrete efforts to reform the economy and society, Uzbekistan has managed to record substantial progress in transforming its economy and society. In March 2020, the country reported the first case of COVID19 and subsequently there were measures to address the scenario that presented three challenges to the economy and society: (a) quarantine measures resulted in loss of income and loss of employment for many; (b) reduction in the influx of remittances; and (c) lowered foreign trade. However, despite these, Uzbekistan was one of the few countries in the that avoided a negative economic growth in 2020[11].

Uzbekistan's Gross Domestic Product (GDP) was estimated to be US$ 58 billion (current prices) in 2020 and as per the Ministry of Finance (MOF) data, it is estimated to have reached US$63 billion as per the latest budget estimates[12]. While the growth during 2019 to 2020 was only 1.65 percent, it is estimated that the economy has grown by 5.1 percent during the period from 2020 to 2021. In terms of GDP per capita income, Uzbekistan citizens had 16.95 million UZB soums (US$ 1686) in 2020 but it is estimated to have slightly reduced to 16.8 million UZB soums (US$ 1552) in 2021. The GDP per capita growth during 2020 was in negative (-0.29).

On the inflation side, the economy managed rather well to control inflation, which fell to 11 percent in June 2021 from 14.7 percent in June 2020 and 19 percent in 2019. After a decline in exports in 2020, exports picked up and increased to around 30 percent of GDP in 2021 (compared to 26 percent in 2020) to reach the levels of pre-COVID19 times. At the same time, though the imports grew by 14.3 percent in the first half of 2021 due to higher private consumption and investment, overall imports have remained the same. The inflow of personal remittances (8.7 percent of GDP in the first half of 2021) is still lower than what it used to be during the pre-COVID19 times. On the fiscal front, while revenue as a percent of GDP grew from 21 percent in 2019 to 23 percent in 2020, the expenditure of the government also grew from 17 percent in 2019 to 20.5 percent in 2020.

[9] http://tashkenttimes.uz/national/541-uzbekistan-s-development-strategy-for-2017-2021-has-been-adopted-following-

[10] 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.

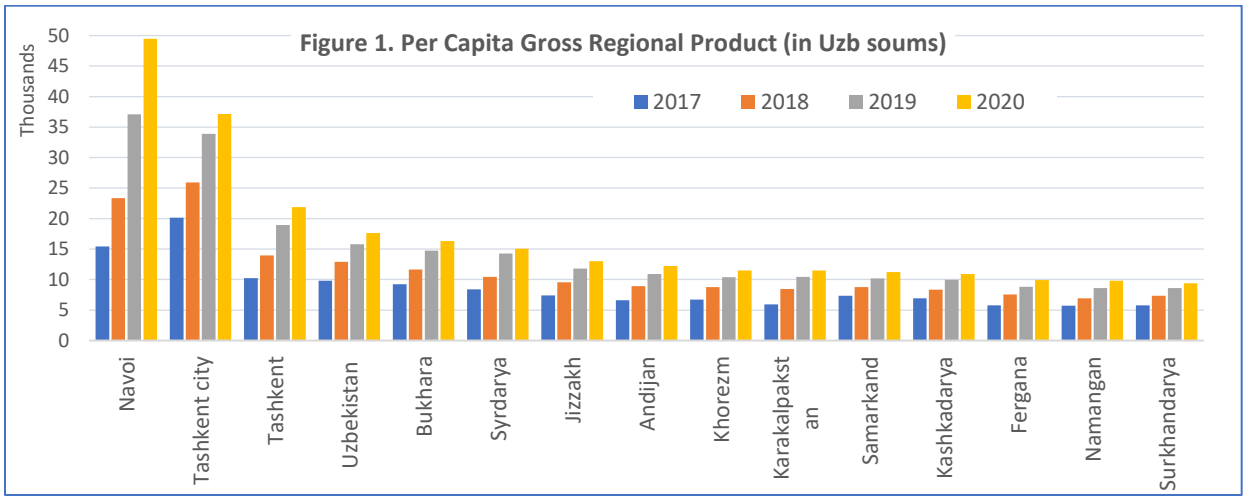
[11] https://www.worldbank.org/en/country/uzbekistan/overview#context

[12] https://www.openbudget.uz/en

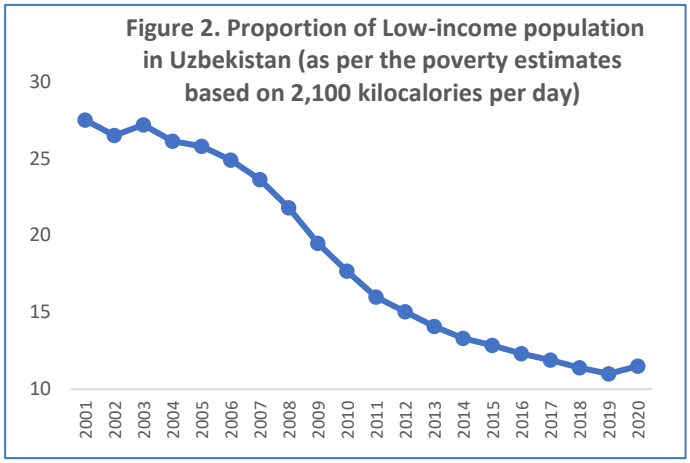
Table 1. Macro-Economic Indicators: Uzbekistan						
	2010	**2017**	**2018**	**2019**	**2020**	**2021**
GDP (current Uzbekistan soum billion)	74042.03	302536.8	406648.5	510117.2	580203.2	688900
GDP (current US$ billion)	46.7	59.2	50.4	57.7	57.7	63.4
GDP (constant 2015 US$ billion)	57.1	90.7	95.6	101.2	102.9	
GDP growth (annual %)	**7.60%**	**4.46%**	**5.45%**	**5.80%**	**1.65%**	**5.1%**
GDP per capita (current Uzbekistan soum in million)	2.59	9.34	12.34	15.19	16.95	16.79
GDP per capita (constant Uzbekistan soum in million)	2.59	3.63	3.76	3.91	3.90	
GDP per capita (current US$)	1634.3	1826.6	1529.1	1719.1	1685.8	1552
GDP per capita (constant 2015 US$)	1998.4	2800.7	2902.3	3013.6	3004.9	
GDP per capita growth (annual %)	**4.60%**	**2.72%**	**3.63%**	**3.83%**	**-0.29%**	
Inflation, GDP deflator (annual %)	39.4%	19.4%	27.5%	18.6%	11.9%	11.1%
Personal remittances received (% of GDP)	7.36%	12.05%	15.10%	14.80%	12.10%	
Export of goods & services (% of GDP)	27.91%	21.80%	28.04%	30.26%	26.31%	30.2%
Import of goods & services (% of GDP)	19.74%	23.88%	38.59%	41.99%	36.73%	35.8%
Revenue, excl. grants (% of GDP)	24.39%	18.32%	22.34%	21.05%	22.90%	23.60%
Expenditure (% of GDP)	15.24%	14.98%	17.13%	17.52%	20.10%	24.10%

Source: World Bank and Ministry of finance, Uzbekistan

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. The per capita Gross Regional Product (GRP) also increased in current prices in all regions, but the increase was much more visible in Navoi and Tashkent city compared to other regions. Surkhandarya region remains the poorer region in the country along with Namangan and Fergana.

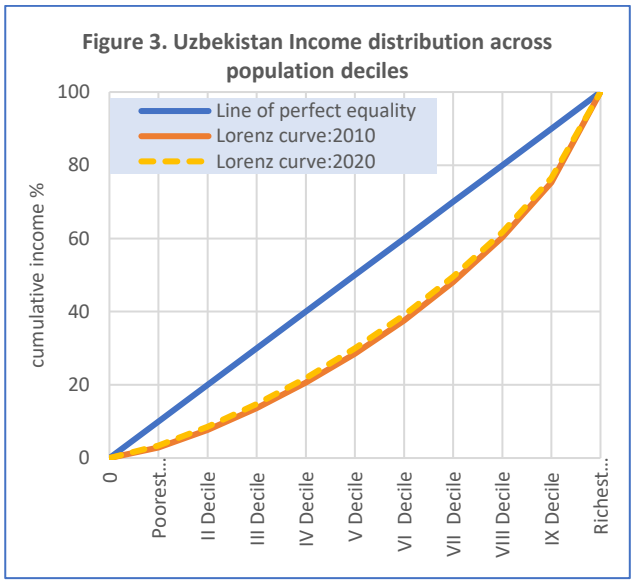


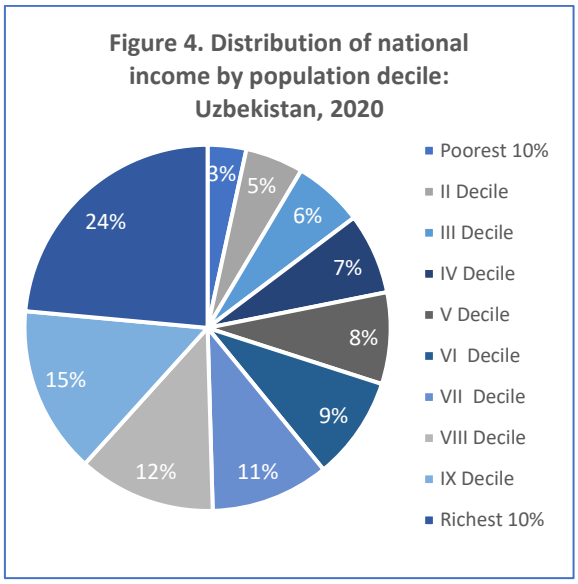
Source: State Statistical Committee, Government of Uzbekistan



The economic disparities are evident not only across regions, but across population as well. The estimations of the share of low-income population in the country (based on the poverty estimates as per the 2,100 kilocalories per day as recommended by the World Bank, carried out by the State Statistical Committee, Government of Uzbekistan) is around 11.5 percent in 2020. The estimated income poverty had increased from 11 percent in 2019 to 11.5 percent 2020, mainly on account of the COVID19 pandemic.

What is also important is to look at the distribution of income among population. As the Lorenz curve[13] shows, the inequality in the distribution of income among the population has not declined much between 2010 and 2020. The Gini coefficient has slightly declined from 0.44 in 2010 to 0.41 in 2021. Still, the inequality is high as the richest 10 percent of population account for almost a fourth of the income whereas the poorest 10 percent gets only 3 percent of all the national wealth.



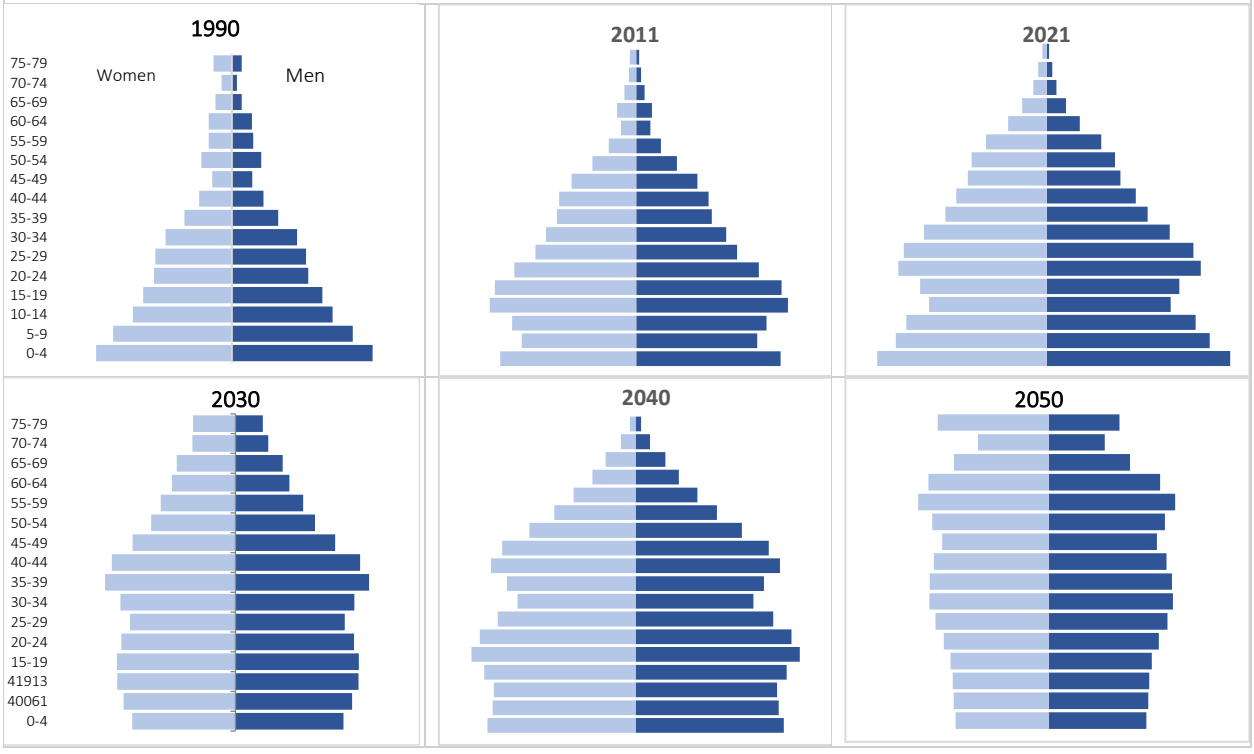


[13] A Lorenz curve plots the cumulative percentages of total income received by households against the cumulative number of households, starting with the poorest individual or household. The Gini Index measures the area between the Lorenz curve and the hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus, a Gini Index of 0 represents perfect equality while an index of 100 implies perfect inequality (World Bank). A higher Gini index indicates greater inequality, with high-income individuals receiving much larger percentages of the total income of the population.

Social and Demographic contexts

Uzbekistan's overall population in 2021 stood close to 34.6 million, out of which 17.2 million were women and 17.4 million were men. The median age of population was estimated at 27.8 years[14]. Uzbekistan has been undergoing a steady demographic transition over the past two and a half decades. The country's population, although still growing, has stabilized while remaining youthful. The dependency ratio (the number of dependents (children under 15 years of age and people over 65 years of age) have declined over previous decades. With the share of the working age population set to expand in the next few years and with the dependency ratio remaining at a moderate level, the country has favorable demographic conditions for a growth spurt - the "window of opportunity" or "demographic dividend" – that could substantially lift real incomes and held reduce poverty. The country still has time to reap a period of high and prolonged growth that could boost prosperity and reduce poverty and inequality (UNICEF 2018). However, the "window of demographic opportunity" will not stay open for long given the country's population trajectory. By 2050s, Uzbekistan's dependency ratio will increase as the share of older population will start to increase despite declining number of children. Global research has identified education attainment as the single most important factor behind obtaining demographic dividends. Education attainment is not only a major determinant in 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.

Figure 5. Demographic transition in Uzbekistan trends from 1990s to 2021 and projections for the next three decades



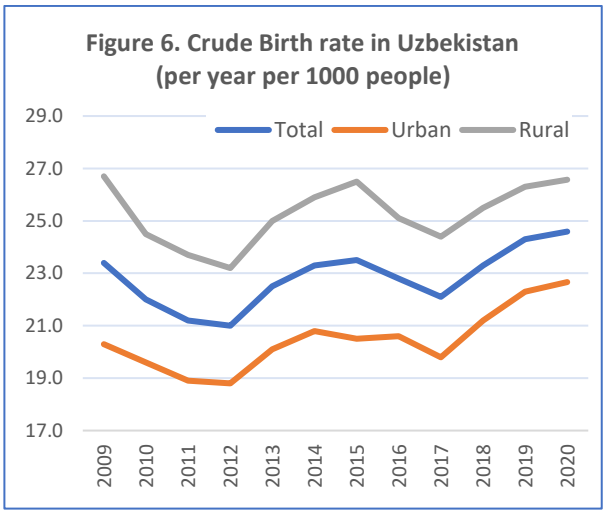
Source: State Statistical Committee, Government of Uzbekistan and UN Population Data base

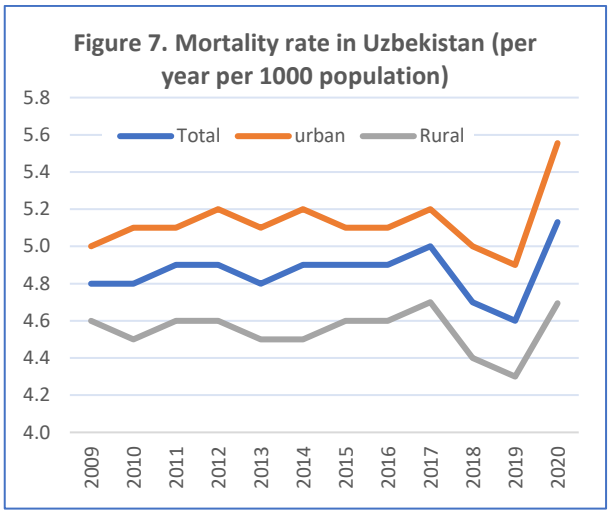
[14] https://population.un.org/wpp/Graphs/1_Demographic%20Profiles/Uzbekistan.pdf

Features of demographic indicators

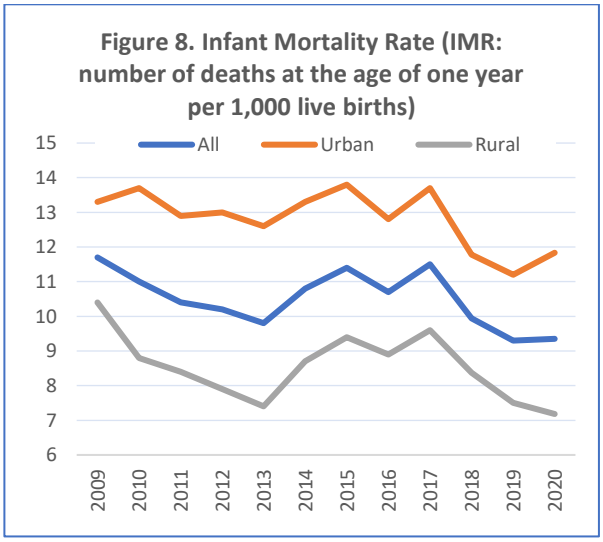
Crude Birth rate: Uzbekistan has high birth rates per 1000 population. At 24.6 births per 1000 population in 2020, Uzbekistan produces more children compared to other lower-middle-income countries (as per the World Bank data, the crude birth rates of lower-middle-income countries was 22 per 1000 population[15]). The birth rates have been increasing in the last three years. As expected, birth rates have been higher in rural areas compared to urban areas. What is also important to note is that the actual birth rates for 2020 exceeds the projections made by UN Population Data base, and hence may have implications for the projections of population by age group and the demographic transition estimates.

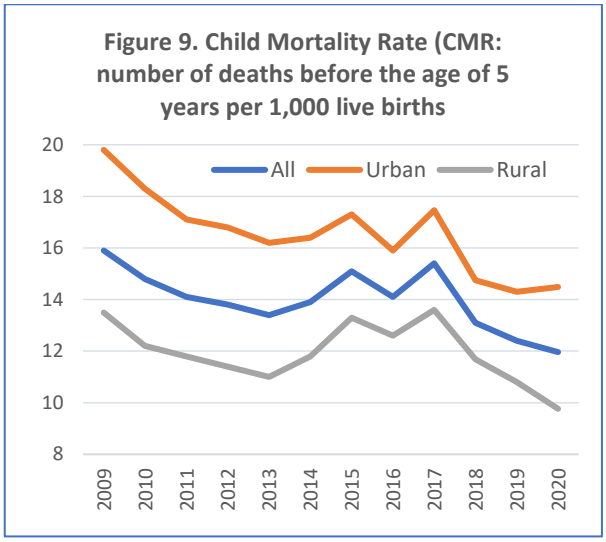
Mortality Rates: Uzbekistan has managed to reach the mortality level of only 5 deaths per year per 1000 population, which is highly commendable. However, Infant Mortality Rates (IMR) and Child Mortality Rates or Under-5 mortality rates higher than the overall mortality rates, which has implications for child population in the country.





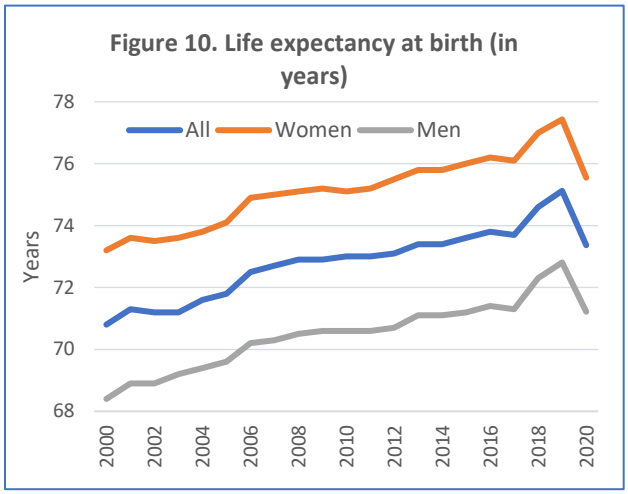
Source: State Statistical Committee, Government of Uzbekistan





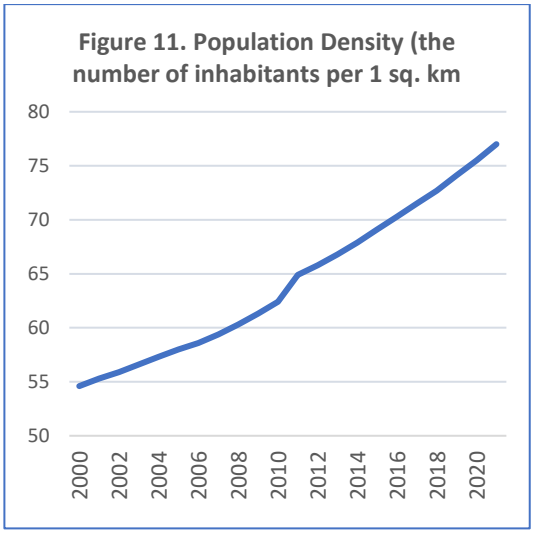
Source: State Statistical Committee, Government of Uzbekistan

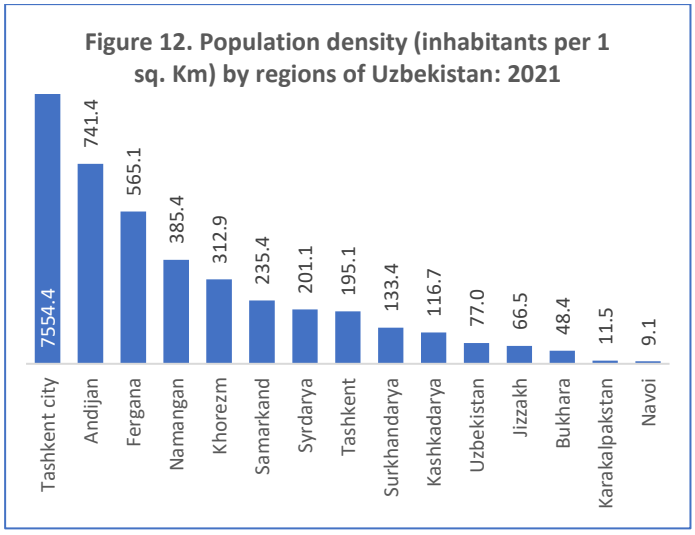
[15] https://data.worldbank.org/indicator/SP.DYN.CBRT.IN



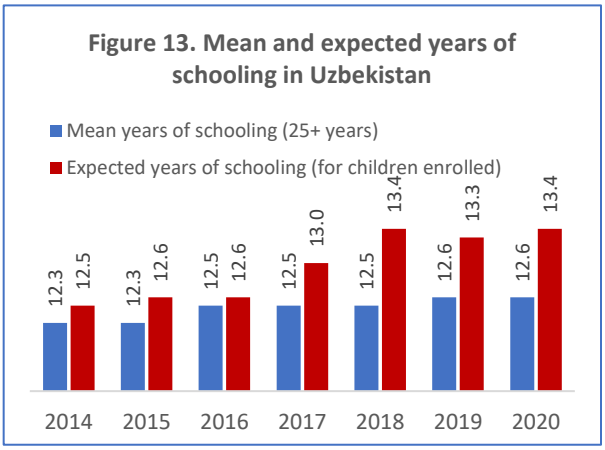
Life Expectancy at birth: As a result of the tremendous achievements in reducing the mortality rates, Uzbekistan has steadily been increasing the life expectancy at birth. Though 2020 figures show a reduced life expectancy, in 2019, on an average an Uzbekistan resident could live up to 75 years, particularly women, whose life expectancy at birth was 77 years in 2019 and 75.5 years in 2020. This contrasts with men whose life expectancy at birth was 73 years in 2019 and 71 years in 2020. On an average, a woman in Uzbekistan is expected to live 4 years more than a man in the country.

Population Density: Despite the surge in population, Uzbekistan, having a huge land mass, has relatively low average population density (the number of inhabitants per 1 sq. Km) of just 77 people per sq.Km. However, the challenge, particularly when the government has to plan its resources for providing social services, is addressing the variations across regions as well as between urban and rural areas. While Tashkent city has a population density of 7554 inhabitants per 1 sq. Km, there are only 9 inhabitants per sq. Km in Navoiy region.





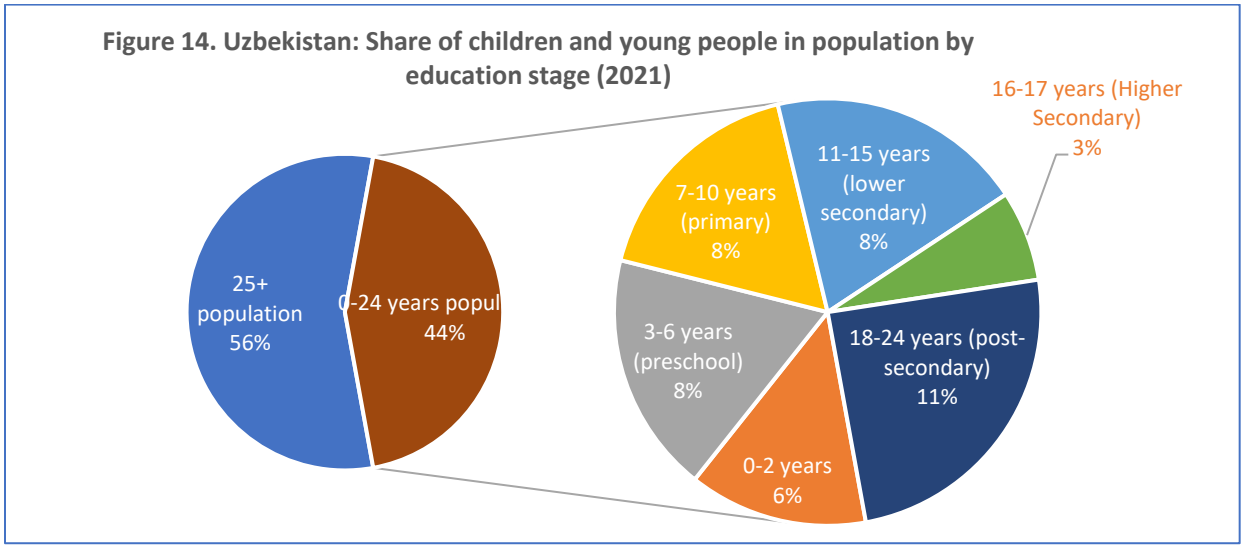
Source: State Statistical Committee, Government of Uzbekistan



Adult Literacy Rate and mean years of schooling: Uzbekistan is a country where nearly all population above 15 years of age are literate for the past two decades or more. The average duration of education that a person in Uzbekistan has received (defined as the average number of years of education received by persons aged 25 years and older during their lifetime) is around 12.6 years; with men receiving on an average 12.9 years of education compared to 12.4 years by women in the country as of 2020. On the other hand, expected years of schooling (defined as the number of years that a child who has reached the officially established age of enrollment in school can spend on education at all levels of education, provided that the existing age-specific enrollment rates of the population are maintained) 13.4 years in 2020 (State Statistical Committee, Government of Uzbekistan). This means that the children in school today will be able to study at least one more year compared to the adults.

Number of Children and young people by education sub-sectors

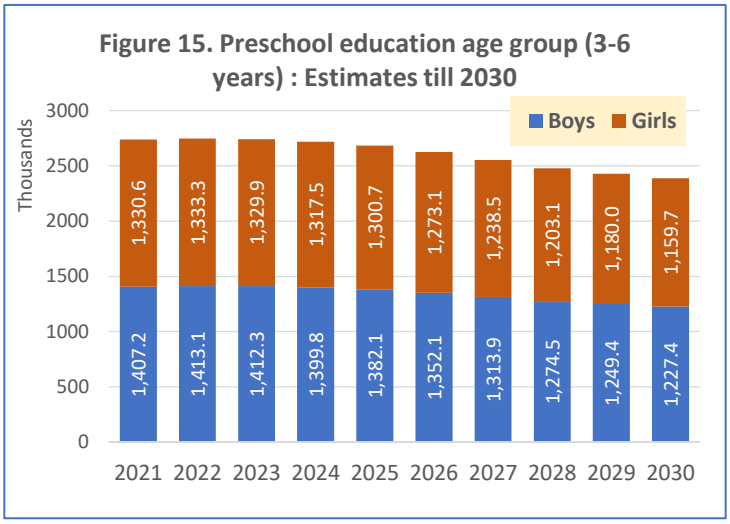
In 2021[16], the preschool education age group (3-6 years) accounted for 8.1% of all people in the country. Similarly, 7-10-year-olds (primary education age group) constituted 7.7 percent of all people in the country. The 11-15-year-olds, who belongs to the lower secondary education (grades 5-9) accounts for 8.6 percent of the total population and the 16-17-year olds (at the higher secondary or equivalent level of grades 10-11) accounts for 3 percent.

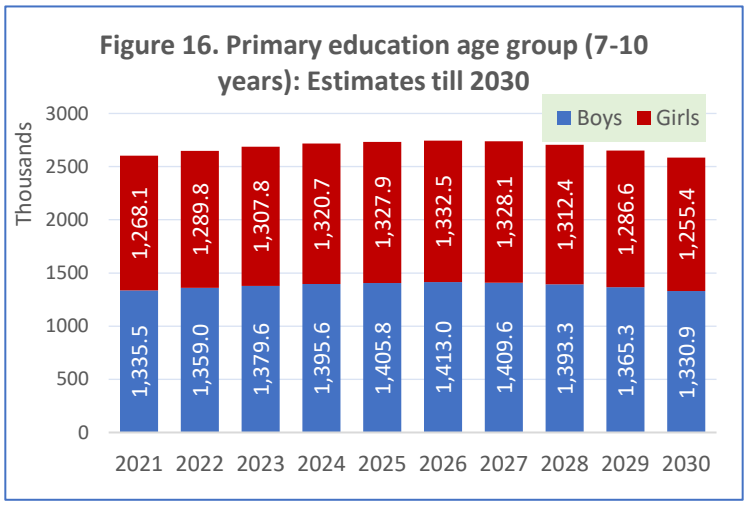


Source: UN Population Data base. https://population.un.org/wpp/Download/Standard/Interpolated/

[16] Estimated using UN Population Data bases https://population.un.org/wpp/Download/Standard/Interpolated/

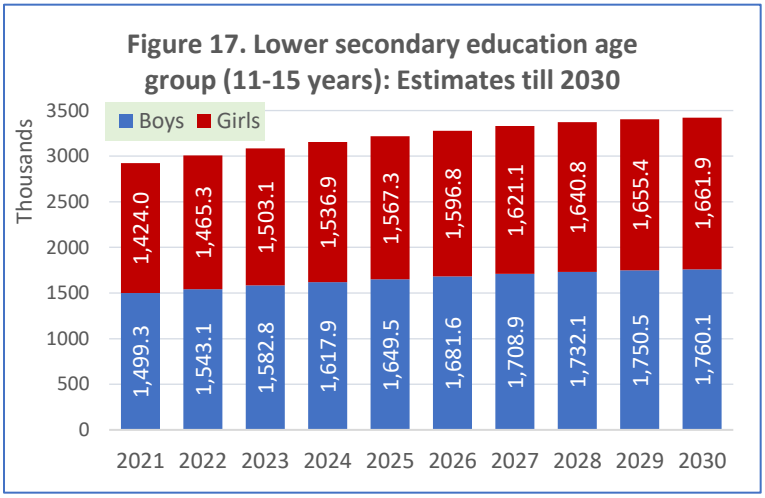
3-6-year-olds in the preschool age group: The UN projections show that the number of children in the age group of 3-6-year-olds will decline by 12% over the next decade compared to the numbers in 2021. While there are 2.7 million children in the preschool education age group in Uzbekistan in 2021, these numbers will decline to 2.4 million by 2030. The share of 3-6-year-old children in total population also will decline from 8.1 percent in 2021 to 6.4 percent by 2030. The share of girls in the total 3—year olds will remain at 48.5 percent through the period.

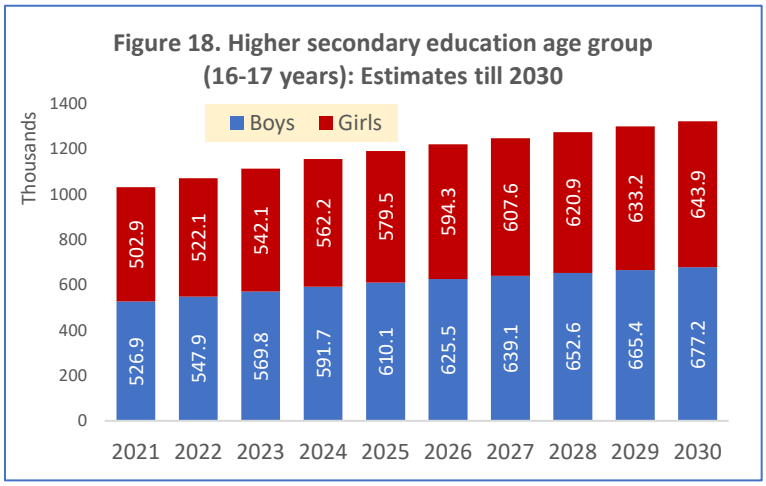




7-10-year-olds (Primary education age group): The number of children in the primary education (grades 1-4) age group will continue to grow till 2026 and thereafter these numbers will start to decline. The share of this age group in total population will decline from 7.7 percent in 2021 to 6.9 percent in 2030. While women account for half (50 percent) of the overall population throughout the period, the share of girls in the primary education age group is only 48.7 percent in 2021, and it will further decline to 48.5 percent by 2030.

11-15-year-olds (lower Secondary education age group): The number of children or adolescents to be enrolled in secondary education (grades 5-9) will continue to increase during the decade from 2.9 million in 2021 to 3.4 million by 2030. The share of this age group in total population will increase from 8.6 percent in 2021 to 9.1 percent by 2030. Compared to the overall share of women in total population (50 percent), the share of girls in the secondary education age group will remain around 48.5 percent throughout the decade.

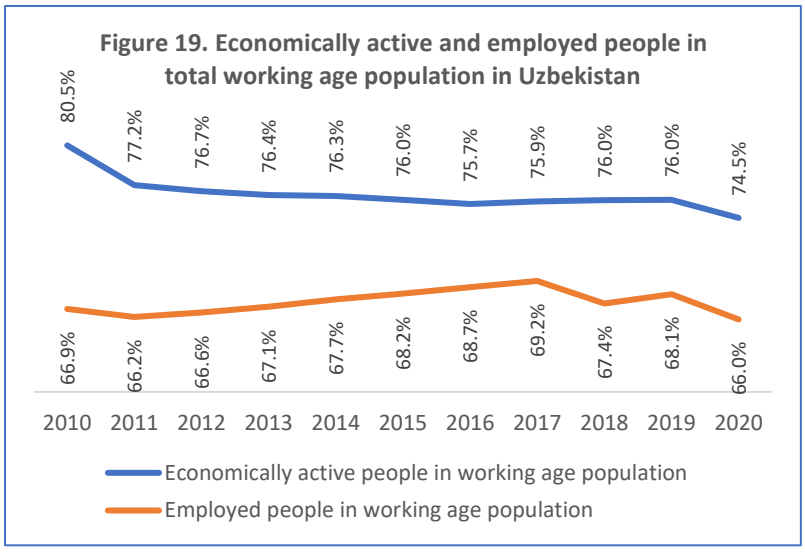




16-17-year-olds (Senior Secondary education): Number of children in the senior secondary education (grades 10-11) will be increasing consistently during the next decade from 1.02 million in 2021 to at least 1.32 million by 2030. In the total population, share of this specific age group will increase from 3 percent in 2021 to 3.5 percent by 2030. Girls' share in the 16-17 years age group will be around 48.7 percent compared to the share of women in total population which is 50 percent.

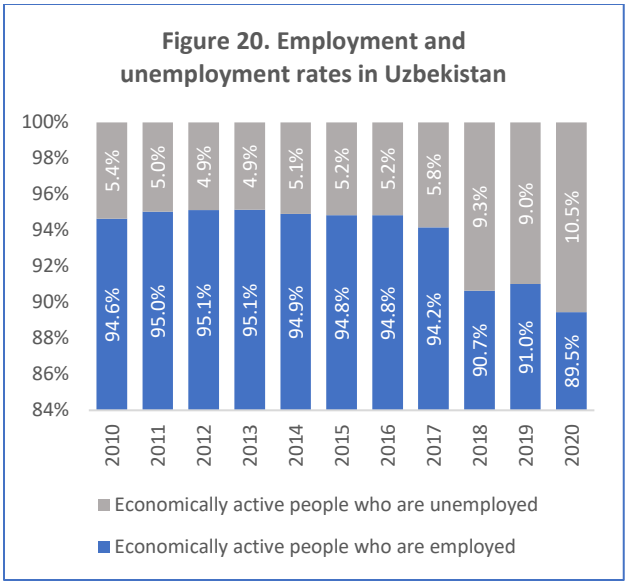
External Efficiency – Labour Market Context

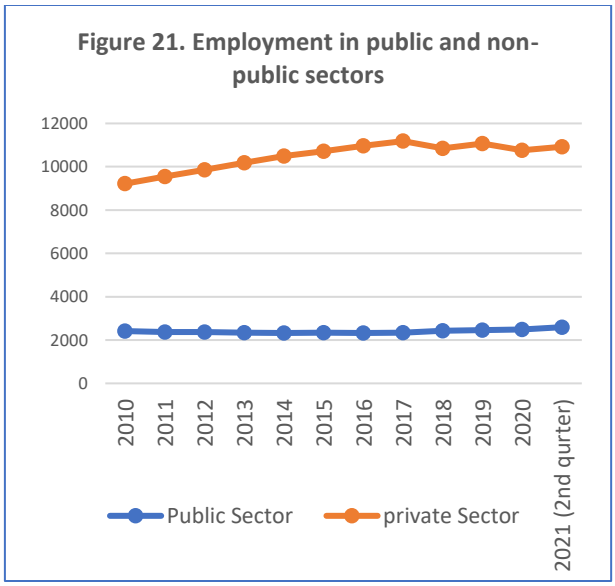
The economic impact of education is often analyzed based on employability and productivity which is a function of supply of and demand for skills. The economic returns to education are assessed through labour force participation rates and the wage earnings. According to the Ministry of Employment and Labour Relations (MOELR), the number of economically active population in the country has increased from 12.3 million in 2010 to 14.8 million by 2020 while the number of people employed has increased from 11.62 million in 2010 to 13.2 million in 2020.

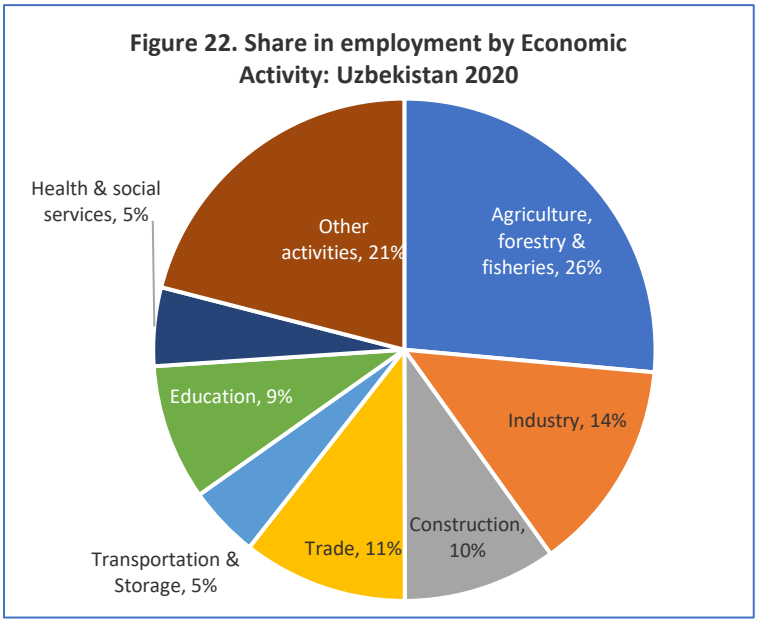


The proportion of economically active population in the working age population has declined over the years from 80 percent in 2010 to 75 percent as of today. As per the data available from the State Statistical Committee, GOU, the ratio of those who are employed in the working-age population had increased from 66 percent in 2011 to 69 percent in 2017, however thereafter it started declining. In 2020 when there was global meltdown due to COVID19 pandemic, the share of employed in the working-age population had further dipped down to 66 percent.

Within economically active population, the proportion of people who are employed have declined from 95 percent in 2020. A significant decline has happened during 2017-2018, when the reforms were introduced. Private sector (both formal and informal employments) account for more than 80 percent of the employment in the country.

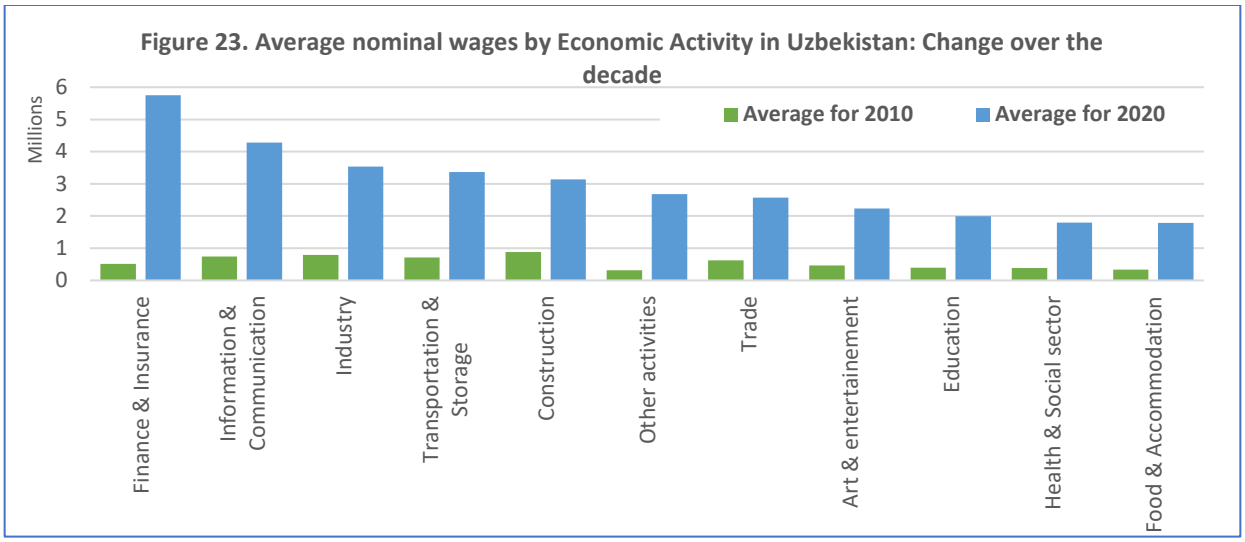






By economic activities, the most prominent sector that employs people continues to be agriculture, forestry, and fisheries. The primary sector employed 26 percent of all the employed people in the country in 2020, which is a slight declined from 27 percent in 2010. The share of employment from construction sector increased slightly from 9 percent in 2010 to 10 percent by 2020. In all other sectors, employment share of economic activities remained the same during 2010 -2020. It is important to note that health and social services accounts for 5 percent of the workforce in the country whereas education accounts for 9 percent of all people employed in the country. Since a vast majority of education and health services are provided by government (public sector), together these sectors account for more than 2/3rds of the public sector employment.

While average annual wages have been increasing over the years consistent with the inflation and other economic parameters, education and health sector workers receive one of the lowest average nominal wages in Uzbekistan, as per the data available from State Statistical Committee, Government of Uzbekistan. Apart from construction, health and education sector service providers' salaries also increased at the lowest pace during the decade 2010-2020 (education and health sector wages increased by nearly 5 times compared to finance and infrastructure, which increased by 11 times).

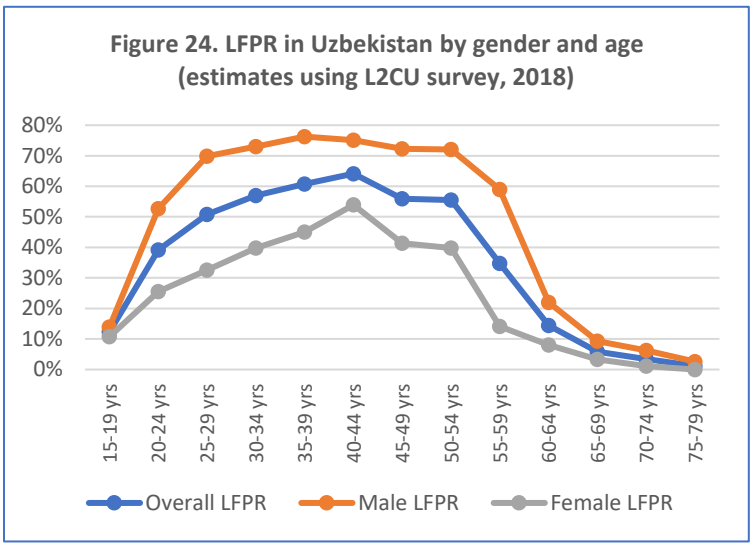


Source: State Statistical Committee, Uzbekistan

Education, employment, and earnings: Analysis of Uzbekistan:

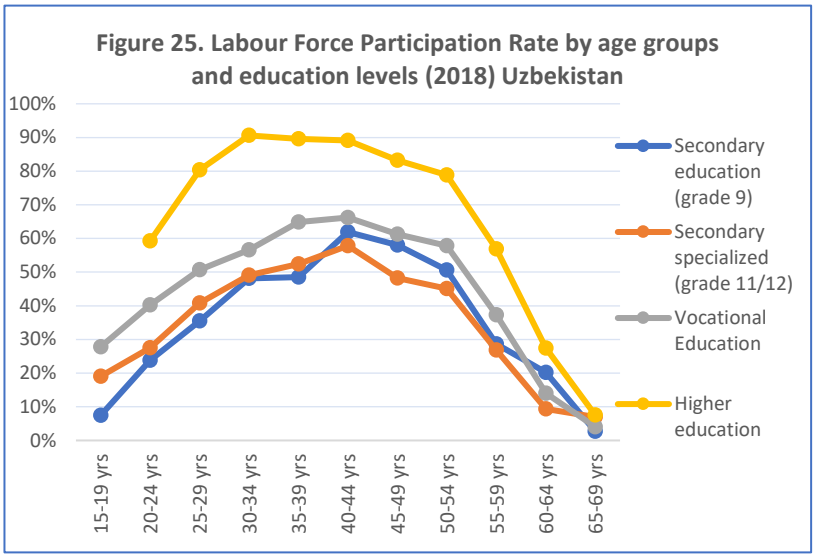
The labour force participation rate (LFPR) is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or looking for work; it provides an indication of the size of the supply of labour available to engage in the production of goods and services, relative to the population at working age. The breakdown of the labour force (formerly known as economically active population) by sex and age group gives a profile of the distribution of the labour force within a country (ILO)[17]. ILO uses only household labour force surveys and population census data that are representative of the whole country (with no geographic limitation) for the construction of the estimates.

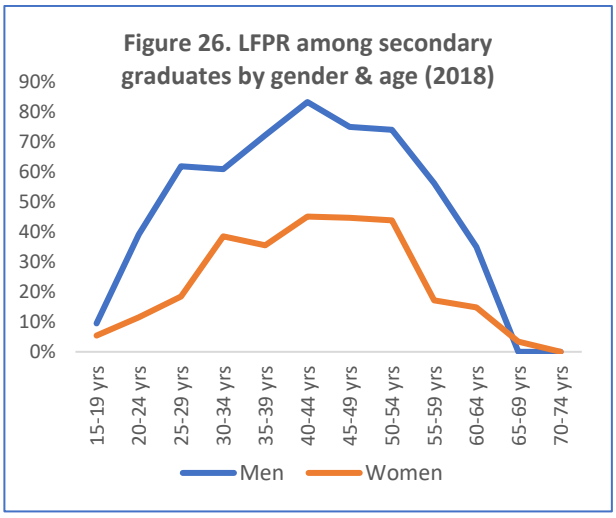
In the case of Uzbekistan, limited options of household surveys are available to estimate LFPR and its linkages to education. Due to paucity of national households' survey data on the LFPRs by education levels, it is difficult to understand the economic returns to education in Uzbekistan. Using the Listening to the Citizens of Uzbekistan (L2CU) data for 2018 (data collected by the World Bank), the LFPRs in Uzbekistan by education levels are estimated for this analysis. The overall LFPR for Uzbekistan shows that the participation peaks when the persons are in their 30s up to 60 years of age, and thereafter it declines. Men participates almost twice higher than women in labour force. While men's participation rate peaks by the time they are 30, women's participation rates peak in 40s, a difference attributable to the reproductive age of women.

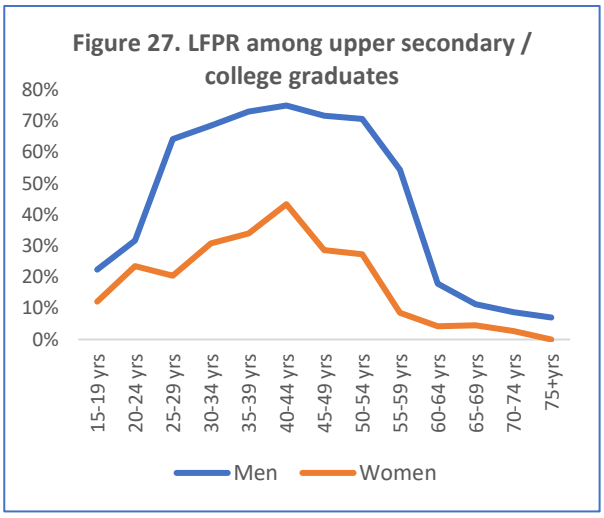


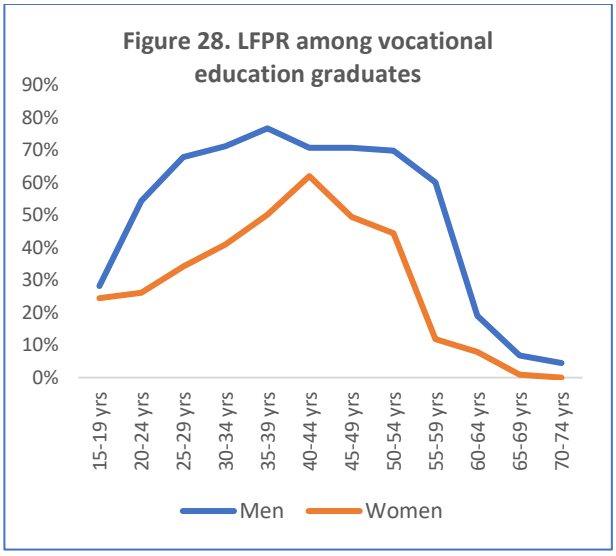
[17] https://www.ilo.org/ilostat-files/Documents/description_LFPR_EN.pdf

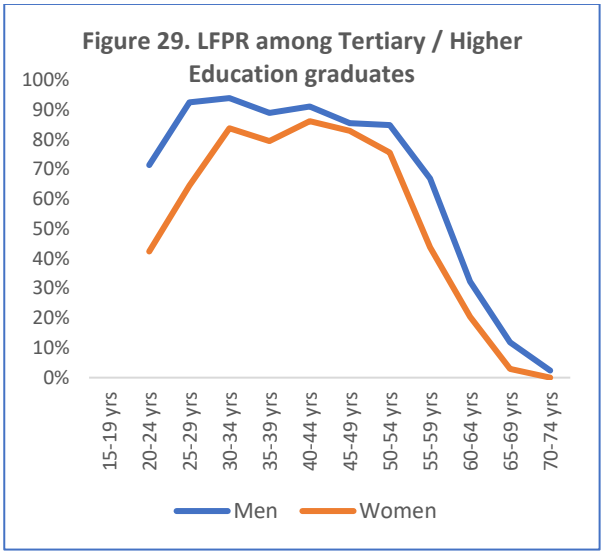
However, analysis of LFPR by education level shows that though the ones with higher (tertiary) education enter labour markets late, they have the highest rates of employment and hence LFPR. While close to 90 percent of higher education graduates work for three decades, the same cannot be said about those with lesser education. Though the ones with vocational education also have better LFPR, their difference from the LFPR of those with only secondary education is very narrow.



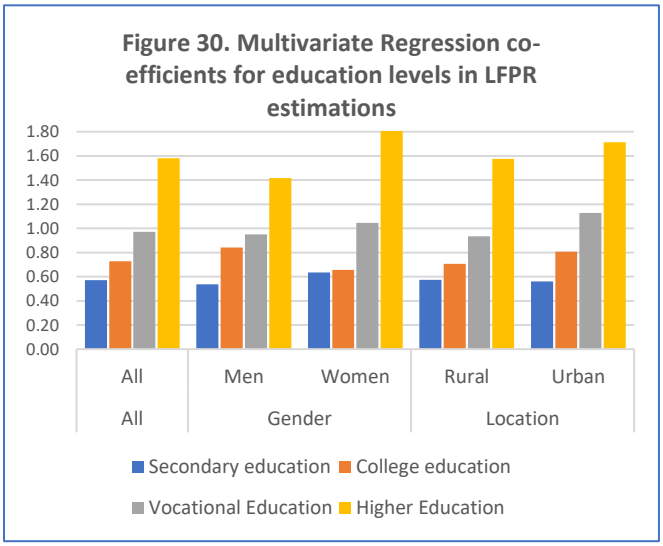




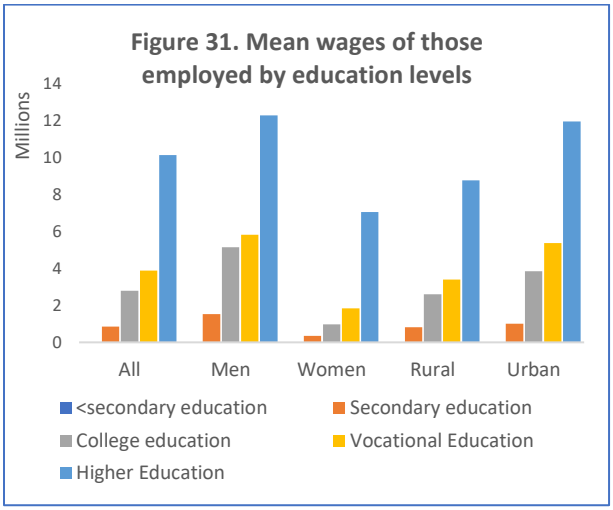


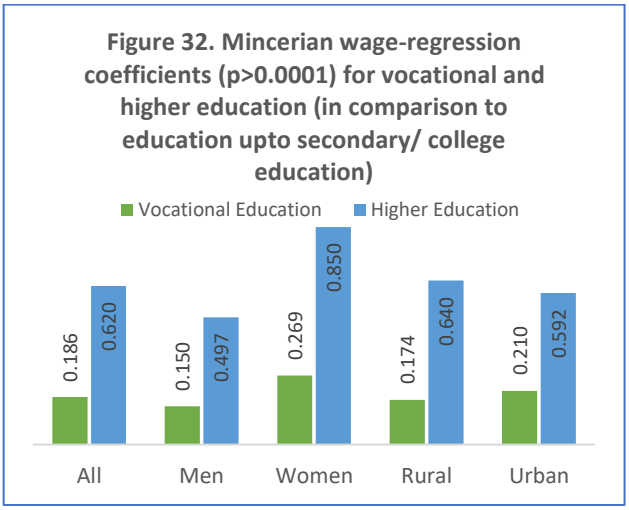


Source: Estimated using data from L2CU, World Bank (2018)



Women's participation in work is much lower if they had only studied up to secondary education compared to those with higher education. The differences between men and women in LFPR are much starker when the education levels are secondary or vocational. The analysis shows that men and women with tertiary education have five times more likelihood of participating in labour market than those with below secondary education, three times more probability than those with only secondary education qualification and 1.6 times more probability than those with vocational education. With higher education, the gender differences in LFPRs also narrower than with secondary education levels.





The Education Sector context

The status of education sector outcomes, outputs and activities are the consequences of the recent developments in education sector in terms of systemic reforms, strategies and interventions. **Uzbekistan's Development Strategy 2017-2021** (adopted in 2017) and the *National Action Strategy on Five Priority Development Areas 2017-2021* emphasized the development of education (sub-area 4.4). As a signatory to the UN Sustainable Development Goals (SDG) 2030 agenda *Transforming Our World—The 2030 Agenda for Sustainable Development*[18], 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". On 20 October 2018, the Government of Uzbekistan adopted the resolution "On measures for implementing the National Sustainable Development Goals and Targets for the period up to 2030". The national SDGs and targets, following the global goals emphasizes the focus of results on learning outcomes, school readiness and skills development at various stages of education.

[18] https://sustainabledevelopment.un.org/post2015/transformingourworld

As per the national /global SDGs, there are three key transition points or learning milestones that all children are expected to succeed: (a) at 5 – 6 years of age, children are expected to be developmentally on track and have school readiness (SDG 4.2); (ii) By the time they are around 10-11 years, every child can read and do basic math; every child has the basic reading and numeracy skills to access the academic curriculum (i.e. transitions from 'learning to read" to "reading to learn") (SDG 4.1); and (iii) by the time they reach 18 years, every young person has the foundational, transferable, digital, entrepreneurial and job-specific skills for work, and for life.

The details of the national SDG and indicators are presented in table below.

Table 2: 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**
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
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
	4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex
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
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
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
	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
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.
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:
	(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
	(a) electricity;
	(b) the Internet for pedagogical purposes;
	(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
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
	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

Source: https://uzbekistan.un.org/sites/default/files/2021-11/Brochure-en-ru-uz_0.pdf

New Laws on Education

Till the adoption of the new Law on Education (2020), Uzbekistan's education sector was governed by the (now invalid) 1997 Law on Education, which was highly oriented towards establishing the authority of the State and State provisions. An analysis of the 1997 Law on Education (UNICEF, 2018) brought out the inadequacy of the provisions to be in line with the international commitments and best practices. As the government was initiating pathbreaking reforms in all spheres of the economy, including social sectors, the Government of Uzbekistan decided to revise the Law on Education (1997). In 2018, the process of establishing new Law on Education was initiated with the newly established (in September 2017) State Inspectorate for Supervision of Education Quality (SISEQ) under the Cabinet of Ministers leading the process in consultation with the Ministries of Education and other stakeholders, including international organizations such as the UNICEF. After several deliberations, the new Law on Education (2020) was accepted by the Legislative Chamber of the Oliy Majlis of the Government of Uzbekistan on May 19, 2020 and approved by the Senate on August 7, 2020. The President of Uzbekistan signed the new Law "On Education (No LRU-637) on September 23, 2020.

The new Law on Education (2020) consists of 11 chapters and 75 articles. The Law establishes the forms of education allowed in the country in terms of preschool education and upbringing, general secondary and secondary specialized education, professional education, higher education, training and extra-curricular education. The General Secondary Education consists of 11 grades, which includes 9 years of basic secondary education and 2 years of secondary specialized education.

The new Law, for the first time in the country, has established a legal base for realizing inclusive education (Article 20 of the Law): "*Inclusive education aims to ensure equal access to education in educational institutions for all students, taking into account the diversity of special educational needs and individual opportunities. Inclusive education will be organized for children with physical, mental, sensory, or mental*

disorders in educational organizations"[19]. Further, the Law states that "*the procedure for organizing inclusive education is determined by the Cabinet of Ministers of the Republic of Uzbekistan*".

The new Law also provides for greater space for private participation in education provision. Articles 31 and 64 of the Law provides for the creation of Non-governmental educational organizations based on the provisions of the public-private partnerships (PPP) in the field of education in accordance with the principles, norms, and provisions of the Law of the Republic of Uzbekistan "On Public Private Partnership". The Law also provides for providing distance education (Article 16) using information and communication technologies (ICT) and digital resources.

As per the new Law (2020), the responsibility of managing the entire education sector is designed as follows:

Table 3. Institutions in charge of implementing Education as per the Law on Education (2020), Government of Uzbekistan

Institution / Body	Functions with respect to education (all sub-sectors)
Cabinet of Ministers of the Republic of Uzbekistan	• implement a unified state policy in the field of education, • approve and ensure the implementation of state programs in the field of education, • direct the authorized government bodies in the field of education, • determine the procedure for attestation and state accreditation of educational organizations, attestation of teaching staff and scientific personnel, issuing licenses to non-state educational organizations for the right to carry out activities for the provision of educational services (hereinafter referred to as the license), affixing an apostille to documents on education, • determine the procedure for recruiting teaching staff in educational organizations and assess their activities, • issue permits for the right to engage in educational activities to educational institutions of foreign states in of Uzbekistan, • determine the procedure for the recognition of educational qualifications obtained in foreign countries, • approve formats and procedures for issuing education documents, • approve the list of areas of education, specialties and professions in which training on an external basis is not allowed, • approve a list of areas of education, specialties and professions, training in which is carried out only in state educational institutions, • establish the procedure for admission to state educational institutions and organizations, • appointment and removal of Rectors of state higher educational institutions, as well as Rectors (heads) of higher educational institutions created with the participation of the state (non-state higher educational organizations with a state share, joint educational institutions, educational institutions created on the basis of public-private partnerships, and others), • establish the procedure for transferring students from one accredited educational organization to another, as well as their expulsion and reinstatement, • establish the procedure for determining the rating of educational organizations, • determine the procedure for retraining and advanced training of personnel, • form government orders for personnel training in educational institutions based on the forecast and analysis of labor market needs, • establish material, technical, infrastructural and parametric requirements for educational organizations,

[19] While Law on Education (2020) is ambiguous about what is meant by "educational organizations" (mainstream education institutions only or encompass boarding and specialized schools), the Presidential Decree # 4860 is upfront about inclusive education being gradually implemented in mainstream / regular schools.

	• establish the procedure for the preparation and publication of textbooks and teaching aids, as well as the requirements for their delivery and use in educational organizations.
State Inspectorate for the Supervision of Education Quality (SISEQ) under the Cabinet of Ministers	• conduct certification and state accreditation of educational organizations, as well as certification of teaching staff there, • monitor the quality of the educational process in educational institutions, • exercise control and participate in the process of assigning positions and qualification categories to teachers of preschool, general secondary, secondary specialized, professional and out-of-school educational organizations, • issue licenses to non-state educational organizations, • determine the rating of educational organizations, • make submissions to the relevant authorized government bodies and educational organizations on the identified violations of the legislation on education.
The Agency for the Development of Presidential, Creative and Specialized Schools under the Cabinet of Ministers	• develop and implement state policy in the field of identifying, selecting, teaching and educating young people in Presidential, creative and specialized schools, • approve state educational standards for Presidential, creative and specialized schools, • carry out unified coordination and methodological guidance of the activities of Presidential, creative and specialized schools in accordance with state educational standards, • introduce progressive forms of education, pedagogical technologies and information innovations into the educational process of Presidential, creative and specialized schools, • strengthen the material and technical base of the Presidential, creative and specialized schools, monitors and coordinates the operation of buildings and structures in these schools
Authorized government bodies in the field of education: the Ministry of Preschool Education (MOPSE), the Ministry of Public Education (MOPE), the Ministry of Higher and Secondary Specialized Education (MOHSSE)	• implement a unified state policy in the field of education, • develop, approve and implement sectoral state programs in the field of education, • coordinate activities and carry out methodological guidance of educational organizations, • exercise control over the implementation by educational organizations of the requirements of state educational standards (including the state standard for preschool education and upbringing), state educational requirements for the level of education and the quality of professional training, • ensure the development and approval of state educational standards (including the state standard for preschool education and upbringing) and state educational requirements, • establish the procedure for assessing the knowledge, skills and abilities of students, • establish a list of professions and specialties of vocational education, areas of undergraduate education and specialties of magistracy of higher education, as well as areas of knowledge and areas of education, • ensure the introduction into the educational process of progressive forms of education, new pedagogical technologies, technical and information teaching aids, • develop measures aimed at improving the quality of professional training in educational institutions, improve educational programs, • organize the preparation and publication of educational literature, • approve normative legal acts on the assessment of academic performance, organization of the educational process, final state certification of students, and also determine the categories of students on an external basis, • submit proposals to the Cabinet of Ministers on the appointment of rectors of state higher educational institutions, • organize training, retraining and advanced training of management and teaching staff of educational organizations, • develop requirements for the use of material and technical resources in educational organizations, • participate in the development of regulatory legal acts in the field of education, and • carry out international cooperation in the field of education.
Local Bodies	• in agreement with the authorized government bodies in the field of education, create, reorganize and liquidate state educational institutions, with the exception of educational institutions of republican subordination,

	• within the limits of their authority, establish the amount of funding for state educational institutions in the relevant territory, • interact with citizens' self-government bodies, non-governmental non-profit organizations and other civil society institutions on the development of educational organizations, • define territories (micro-areas) attached to state general secondary educational institutions, • assist educational organizations in the implementation of international cooperation in the field of education, • develop programs to create the necessary local conditions for students in order to provide them with high-quality education, upbringing, formation and manifestation of their abilities, • within their powers, develop public-private partnership in the field of education and contribute to the expansion of the network of non-state educational organizations, • assist in ensuring the employment of graduates of general secondary educational institutions.

Source: Law on Education (2020)

Reforms and policies in Preschool Education

Reforms in the preschool education sub-sector were introduced since a new government assumed office in Uzbekistan in late 2016. In December 2016, through a Presidential Decree (PP# 2707 on "Measures Aimed at Further Improvement of the Pre-School Education System in 2017-2021")[20], the Government approved a Programme for "Further Improvement of the Preschool Education System" during 2017- 2021, with the goal of reforming the quality of preschool education. This national programme was aimed at (i) creating conditions for a comprehensive early childhood development of children, based on international good practices, (ii) improving the quality of preschool education, and preschool children's readiness for school, 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.

One of the important steps taken by the government in 2017 was the establishment of a new Ministry of Preschool Education (MOPSE) with the purpose of enhancing the expansion of quality preschool education in the country. "Iin order to further improve the preschool education system as the most important link in a unified system of continuing education, create an effective public administration system, expand the network and strengthen the material and technical base of state and non-state preschool educational institutions, staff them with qualified teaching staff, ensure the fullest possible coverage of children with preschool education, introduction into the educational process of modern educational programs and technologies aimed at the comprehensive intellectual, spiritual, aesthetic and physical development of children, a radical increase in the level of preparation of children for school[21]", a Ministry of Preschool Education (MOPSE) was established on 30 September 2017. This was a response to 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.

[20] https://lex.uz/en/docs/3090103

[21] https://lex.uz/en/docs/3362884 Decree of the President of the republic of Uzbekistan 5198 ("On Measures to Radically Improve the Management of the Preschool Education System" dated 30 September 2017)

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[22]. 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[23]. Additionally, preschool education will be provided at no cost for some families from disadvantaged socioeconomic backgrounds in private preschools.

In 2019, Government of Uzbekistan adopted the "Law on Preschool Education" (Act of the Cabinet of Ministers # 5019, approved on 31 December 2019, came to force on 3rd January 2020)[24]. As per the Law, the state guarantees every child the right to one year of compulsory preschool /pre-primary education before the children enter grade 1. The Law also established the basic principles and directions of State policy regarding preschool education. As per the Law, there are many institutions in charge of implementing the State Policy or the Law on Preschool Education and upbringing/ development. These include: (i) Cabinet of Ministers of the Republic of Uzbekistan; (ii) The State Inspectorate for the Supervision of Education Quality (SISEQ) under the Cabinet of Ministers; (iii) Ministry of Preschool Education (MOPSE); (iv) Ministry of Health (MOH); (v) state and non-state preschool educational institutions; and (vi) local bodies. The specific functions of these bodies are described in the table below.

Table 4. Institutions in charge of implementing preschool education as per the Law on Preschool Education and Upbringing (2019)

Institution / Body	Functions with respect to preschool education
Cabinet of Ministers of the Republic of Uzbekistan	• ensure, the implementation of a unified state policy in the field of preschool education and development, approval and implementation of state programs in the field, adoption of normative legal acts, • coordinate the activities of government agencies and other organizations in the field of preschool education, • regulate the implementation of PPP in preschool education. • approve the state standards, • regulate the organization, reorganization and termination of preschool educational institutions, including licensing, • determine the procedure for admission of preschool children to state preschool educational institutions
State Inspectorate for the Supervision of Education Quality (SISEQ) under the Cabinet of Ministers	• monitoring and quality assurance of the processes in preschools, • attestation and state accreditation of preschools, • attests the management and teaching staff of state preschools, • assignment of qualification categories to teachers of preschools, • issue licenses to non-governmental preschools.
Ministry of Preschool Education	• implement a unified state policy in the field of preschool education, • ensure the implementation of legislation on preschool education,

[22] President's Resolution #3651 on "Measures of Further Stimulation and Development of Preschool Education System" dated April 5, 2018.

[23] 9 https://www.gazeta.uz/ru/2018/01/09/kindergarten

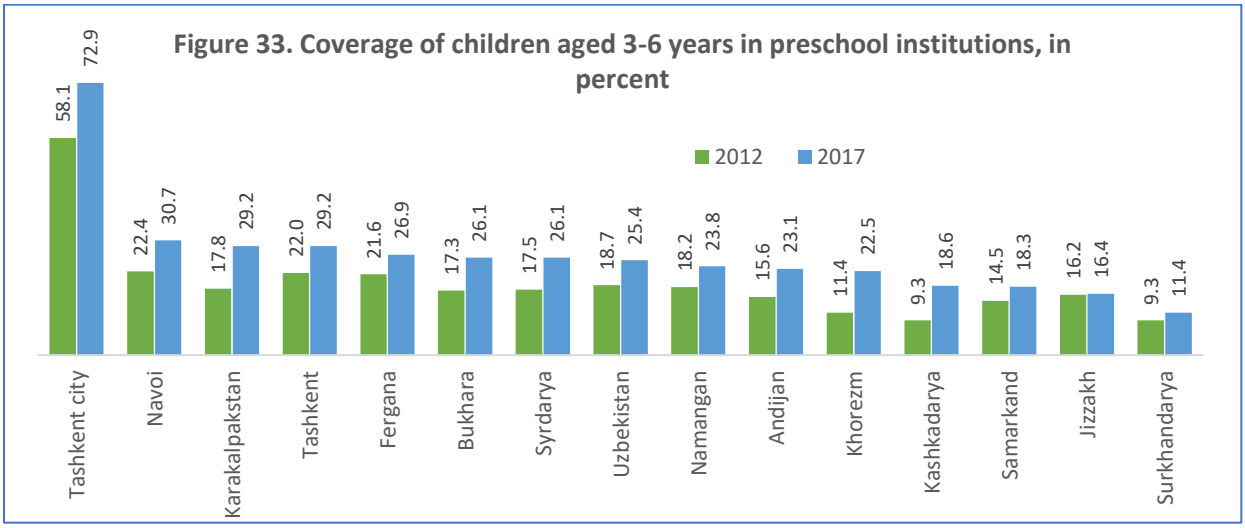
[24] https://lex.uz/en/docs/4676839

	• develop and implement state programs in the field of ECE, • adopt and participate in the development of normative and legal acts in the field of preschool education within its competence, • organize, reorganize, and terminate state preschools, • provide methodological guidance to the activities of preschools, • develop, approve, and implement the state educational program of preschool education and upbringing, • study and introduce advanced pedagogical technologies in the educational process, • organize the provision of state preschools with teaching materials, didactic materials, fiction, developmental games, and toys, as well as equipping and strengthening their material and technical base, • set requirements for the qualification of employees of public preschools, • Train, retrain and provide advanced training for preschool personnel, • Ensure collection and analysis of statistical data in the field of preschool education, • determine the procedure for organizing the activities of the supervisory board of the state preschool education organization, • carry out and coordinate research and scientific-methodological activities in the field of preschool education, • provide methodological, counseling, and other assistance to the child's legal representatives, • take measures to attract investments and grants to the pre-school education system, supports existing projects with foreign investment.
Ministry of Health	• provide free qualified medical care to preschool children within the limits guaranteed by the state, • ensures the implementation of the legislation on preschool education and upbringing within its competence, • Together with the MOPSE, determine the set of natural products in the organization of preschool education for rational and balanced nutrition, appropriate to the age and physiological needs of the child, • conduct treatment-rehabilitation, rehabilitation, sanitary-hygienic and preventive measures aimed at improving the health of children with special educational needs, • organize medical examinations of employees.
preschool educational organizations	• ensure the implementation of legislation on preschool education, • develop and implement sectoral programs in the field of preschool education and upbringing, • In accordance with the agreement with the MOPSE, reorganizes and liquidates the state preschools under its jurisdiction.
Local Bodies	• ensure implementation of legislation on preschool education, • develop and implement regional programs in the field of preschool education and upbringing, • create the necessary conditions for quality preschool education, • carry out activities in the field of PPP in preschool education and upbringing within its competence, • promote social protection, protection of life, health, as well as protection of the rights and legitimate interests of participants in the educational process and employees of preschool education, • take measures to create favorable conditions for attracting investment in the system of preschool education and upbringing, • issue permit in the field of preschool education and upbringing, • In accordance with the agreement with the MOPSE, organize, reorganize, and terminate state preschools in the relevant territory.

CHAPTER 3. PRESCHOOL EDUCATION

Introduction

In 2012, less than a fifth of the 3-6 years old children in Uzbekistan attended a preschool education programme (18.7 percent overall, with 58 percent children in Tashkent city attending a preschool whereas only 9 percent children attending preschools in Kashkadarya and Surkhandarya)[25]. In 2017, around a fourth of the 3-6 years old children were enrolled in preschools in the country. However, preschool enrolment in Uzbekistan compared way below that of other countries with similar lower-middle-income status or even some of the neighbouring Central Asian countries. In 2017, Uzbekistan's net preschool enrollment rate was very low compared to Kazakhstan (60 percent), Finland (79 percent), Moldova (82 percent), Russia (85 percent), and Japan (90 percent).



Source: https://stat.uz/en/official-statistics/social-protection;

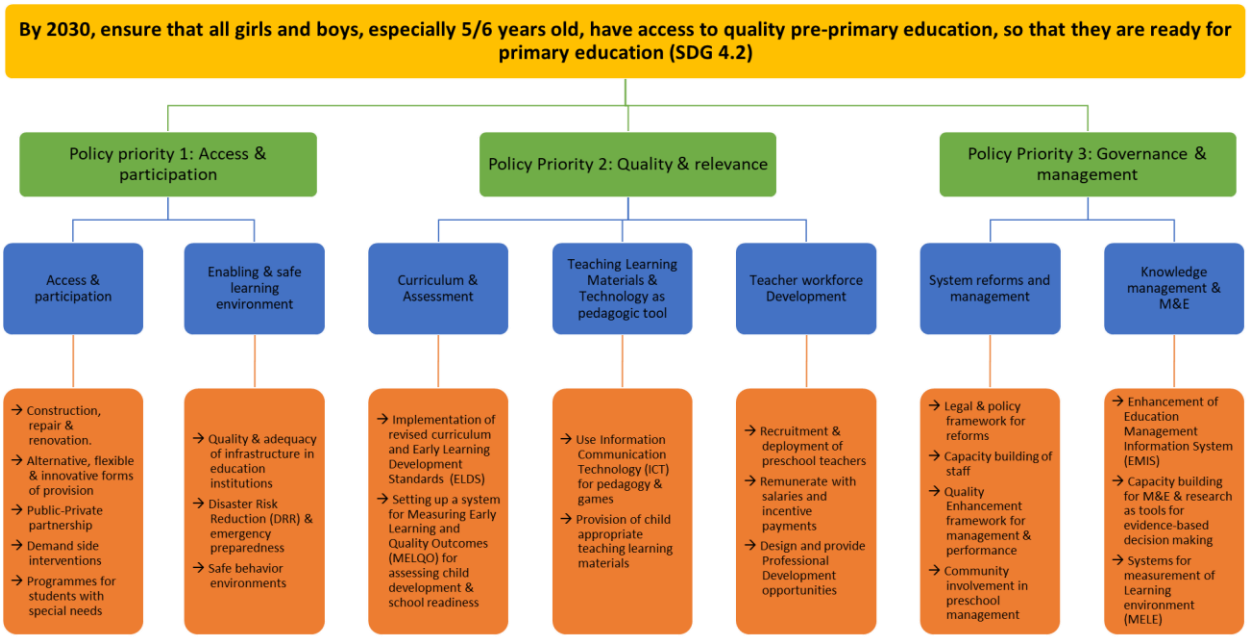
When the new Ministry of Preschool Education (MOPSE) was established, one the challenges were also related to the absence of mechanisms to measure quality of processes and outcomes within the preschool system in Uzbekistan and this led to the initial policies and programmes being designed on the evidences that were related to preschool participation and not quality. As evident from the nationally recognized SDG indicators for education, one of the important indicators related to preschool education is related to ensuring that the children are developmentally on track in health, learning and psychosocial well-being, and thus, being "readied" for entering schools. The measurement of quality is important to assess whether preschool children are being adequately prepared to enter primary schools. However, there were no system in place in 2017/18 to assess quality of preschool education in the country. The issue was aggravated by the absence of a proper Education Management Information System (EMIS) or Education Quality Assurance System (EQAS) for preschool education in the country.

[25] https://stat.uz/en/official-statistics/social-protection

Preschool Education in ESP 2019-2023

The Education Sector Plan (ESP) 2019-2023 envisaged a holistic development of systems for improving access, equity and quality of preschool education in the country.

Chart 2. Theory of Change for Preschool Education Sector in Uzbekistan under ESP 2019-2023



The ESP 2019-2023 aims to support the country's progress towards achieving SDG 4.2 goals and targets. These are elaborated below.

Policy Goal 1: Improve equitable access to and participation in education at all levels:

The ESP proposes to improve equitable access to preschool education, particularly, the following outcomes and outputs:

- Improve the enrollment / participation rates of children in the age group of 3-6 years in preschool education (outcome),
- Ensure universal, free, and compulsory one-year preschool school (one year before the official primary entry age) education for 5/6 years old children (outcome),
- Enhance enrollment parities by ensuring increasing participation of girls, children from remote rural areas, children with disabilities and special needs in preschool education (outcome)
- Increase the number of preschools (state/ non-state; regular /alternative) (output)
- Increase in the number /share of preschools with appropriate infrastructure and facilities (output)
- Increase the number of preschool facilities upgraded /renovated to ensure safe and effective learning environments for young children (output)

For realizing this policy goal and its targeted outcomes and outputs, the ESP proposed a range of activities under the following strategic areas: (i) access and participation; and (ii) safe and enabling learning environment.

***Access and Participation**:* 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 (see pages 93, 96, 199 of the ESP 2019-2023).

Safe and enabling learning environments: The ESP proposed 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 envisaged for providing safe and enabling preschools 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 (pages 94, 96 and 120 of the ESP 2019-2023 for details).

Policy Goal 2: Quality and Relevance

The ESP proposes to improve quality and relevance of preschool education by achieving the following outcomes and outputs:

- Increase in the number / share of children entering primary grades have appropriate "school readiness" (outcome)
- Enhanced parity in school readiness levels of both boys and girls, rural and urban, and for children with disabilities and special needs (outcome)
- Number /proportion of Preschools (state and non-state) using early childhood education programmes (regular /alternative) based on revised preschool curricula and ELDS (output)
- Number /proportion of preschool teachers and staff trained in implementing ECE programmes based on the revised curriculum and ELDS (output)

The ESP proposed a range of activities for the policy area under the following strategic areas: (i) curricular reforms; (ii) Appropriate pedagogy and teaching-learning and other materials; and (iii) development / capacity building of teachers and other staff.

Curricular reforms: In order to upgrade the quality of the content offered in the preschool education, the ESP proposed the following activities: (a) review and revision of curriculum and Early Learning Development Standards (ELDS) periodically; (b) train preschool teachers in implementing curriculum and ELDS; (c) establishing a system to introduce Measuring Early Learning Quality and Outcomes (MELQO) and its components, namely: (i) Measuring Child Development and Early Learning (MODEL); and (ii)) Measuring the quality of Early Learning Environments (MELE) (see pages 97, 98 and 121 of the ESP 2019-2023 for details).

Appropriate pedagogy and Teaching Learning Materials, including Technology in preschool education: The ESP proposed two main activities under this strategic area: (a) Ensuring the provision of child-friendly materials (including furniture) and teaching-learning materials (TLMs); and (b) wider use of Information and Communication Technology (ICT) as a powerful pedagogic tool as well as tool and management (see pages 97, 98 and of ESP 2019-2023 for details).

Teacher/ staff Work Force Development: The ESP 2019-2023 envisaged the following activities for developing preschool teachers and other staff: (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 prestige of teaching profession (see pages 97, 98 and 123 of ESP 2019-2023 for details).

Policy goal 3: Governance and management

The ESP proposes to improve the systems for managing the preschool education by achieving the following outcomes and outputs:

- Harmonized policy for preschool education (outcome)
- Strategy for engaging non-state actors (private sector) in preschool education (output)
- Establishing / strengthening preschool Education Management Information Systems (EMIS) (output)
- Enhancing community engagement in preschool management (output)

The ESP proposed a range of activities for system strengthening in preschool education, and these are mainly under two strategic areas: (i) systemic reforms, governance and management; and (ii) monitoring and knowledge management for evidence-based programmes in preschool education.

Systemic reforms, governance, and management: ESP 2019-2023 proposed the following activities for improving the systems and its management: (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 centers, general secondary schools etc.); and (d) promoting parental /community engagement in preschool management (see pages 99, 100, and 124 of ESP 2019-2023 for details).

Monitoring and Knowledge Management: The ESP proposed the following activities under this strategic area: (a) strengthening preschool Education Management System (EMIS) and harmonizing with other education subsector EMISs to have an integrated EMIS; (b) Capacity building of staff at various levels for collecting/ compiling preschool information on various indicators as well as analyzing and using the data; and (c) Strengthening research & evaluation of preschool education sector (see pages 99, 100 and 125 of ESP 2019-2023 for details).

The achievement of Uzbekistan in developing and improving the preschool education sub-sector is analyzed below in terms of outcomes, outputs as well as the activities envisaged in the ESP 2019-2023, as elaborated below.

Preschool Education Outcomes: 2021

Access / Provision: Prior to 2017, state (public) preschools accounted for almost all the preschool provisions in the country. With the establishment of the Ministry of Preschool Education (MOPSE) in September 2017 and with the establishment of the legal provisions and policies for public-private-partnership (PPP) in various formats for expanding preschool education, the number of preschools in the country increased from around 5186 in 2017 to 18,345 by 2021 and it is estimated that the total preschools in the country will increase to 22429 by the end of 2022. This four-fold increase in preschool institutions within a period of four years is remarkable.

This increase in preschool provisions were made possible because of the state strategy to use PPPs in preschools, especially using family-based preschool models. While close to 800 new preschools in state sector were opened since 2017, 12,364 new preschools in the private or non-state sectors were established during 2018-2021. Family based preschools alone account for 61 percent of all preschools in the country today. Through the establishment of these new preschools, the overall capacity to provide preschool education in the country has increased by more than 16 percent during 2017-2021– from 734,000 spaces (2017) to 852,500 spaces (2021). The state-preschools, on an average, have a capacity to accommodate 150 children whereas non-state preschools, particularly the family preschools have an average capacity to accommodate 30-35 students.

Table 5. Preschool Provision in Uzbekistan

INDICATORS	2015	2017	2020	2021	2022 (f)
Number of educational institutions for children	5126	5186	15,156	18,345	22429
• *State educational institutions for children*			5,960	5,981	6031
• *Preschools based on PPP*			1,112	1,166	1200
• *family based preschools*			8,084	11,198	15198
Capacity (thousand places)	713	734	849	852.5	856.2
Number of groups (in thousands)			42	46	46.3

Source: MOPSE, UNDP

Table 6. Enrolments in Preschools in Uzbekistan

INDICATORS	2015	2017	2020	2021	2022 (f)
Number of children (in thousands)	634	733	1,346	1,608	1715.3
• *in state preschools*			1,048	1,130.7	1153.3
• *in preschools based on PPP*			103	107.5	118.3
• *in family-based preschools*			195	369.7	443.7
Children of 3-6 years (thousand)			2,770	2792.8	2 876.6
Coverage of children of preschool age, %	20%	29%	49%	58%	63%

Source: MOPSE, UNDP

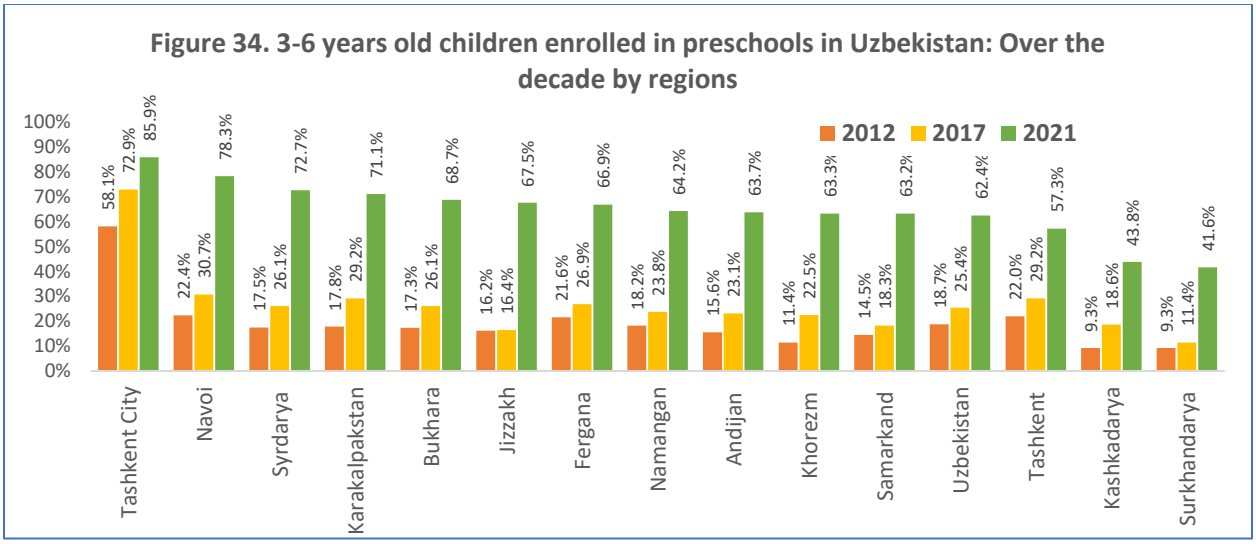
Enrolment / participation in preschool education: There are over 2.7 million children in the age group of 3-6 years in Uzbekistan, out of which 1.3 million were attending an Early Childhood Care and Education (ECCE) programme in over 15000 preschools in 2020 (before the lockdown imposed due to COVID-19 pandemic in March 2020). As per the latest data available from the government, at the beginning of 2021, over 1.6 million children in the age group of 3-6 years were attending preschools. In the last quarter of 2021, there are already 1.7 million children in preschools (for academic year started in September 2021 and will continue through 2022). While the overall enrolment rates are now 63 percent, state preschools account for more than 2/3rds of all preschool enrolment (67 percent). Family-type preschools accounts

for nearly 26 percent of all enrolments whereas the pure PPP model preschools account for 7 percent of all children attending preschool education.

The Sustainable Development Goals (SDG) Indicator 4.2.2 is related to the participation rates of children in organized learning (one year before the official primary entry age). In Uzbekistan, in 2021, the proportion of 6-year-olds attending pre-school /pre-primary education has reached around 77 percent (MOPSE, September 2021). In 2020, this was only 66 percent.

Equity Issues in preschool participation: The Education Management Information System (EMIS) of MOPSE collects data on preschool enrolments disaggregated by gender, location, and various other parameters. However, data on many of these indicators are not publicly available.

An analysis of the preschool enrolment rates by region over the past one decade shows monumental increase since 2017. Enrolments rates have increased more prominently in Navoi, Syrdarya and other regions. Surkhandarya and Kashkadarya regions are yet to catch up with the pace of other regions in preschool enrolments. Tashkent city children were historically privileged to have high participation, and the enrolments have further improved in the last four years.



Apart from the increase in enrolments by region, another important category to examine is the enrolments in preschool education by gender. The SDG indicators related to education demands enrolment rates disaggregated by gender. From the latest data available from MOPSE's Preschool EMIS, 59 percent of girls and 66 percent of boys in the age group of 3-6 years are currently attending preschool education (2021-2022 academic year started in September 2021). The gender parity index in Uzbekistan preschool education sector is estimated to be 0.897.

There are also huge variations across regions[26] in terms of overall enrolments as well as enrolments by gender. In Tashkent city, where overall 86 percent of children are now attending a preschool, only 80 percent of girls are attending a preschool compared to 93 percent of boys. On the other hand, Surkhandarya, a region bordering Afghanistan, only around 42 percent of children are enrolled in preschools. Here, only 39 percent of the 3-6 years old girls are attending preschools compared to 44 percent of boys.

[26] In Uzbekistan, "regions" refers to sub-national administrative units (similar to provinces)

Figure 35. 3-6 years old children enrolled in preschools in Uzbekistan: By gender & regions; Source: MOPSE, September 2021

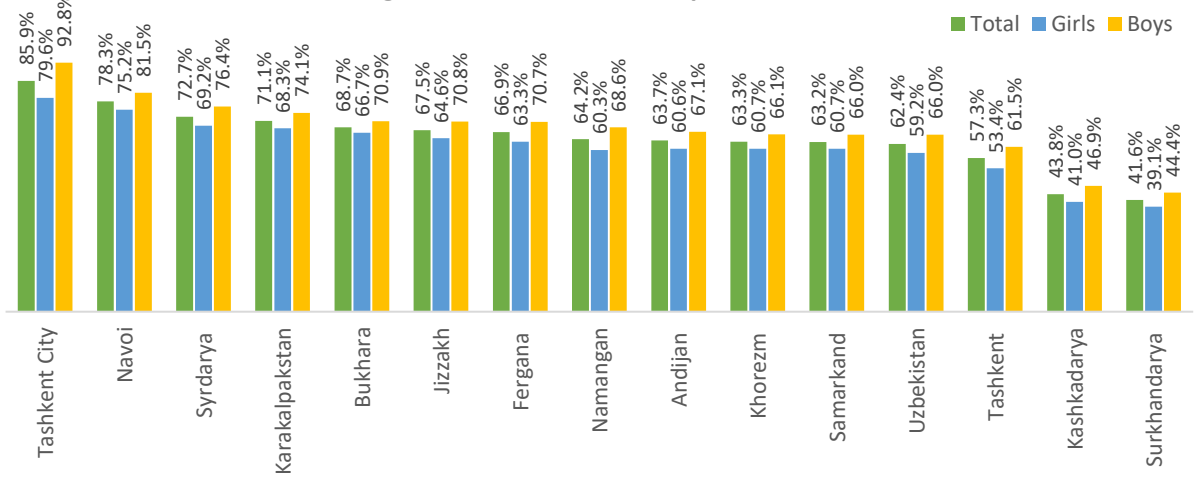
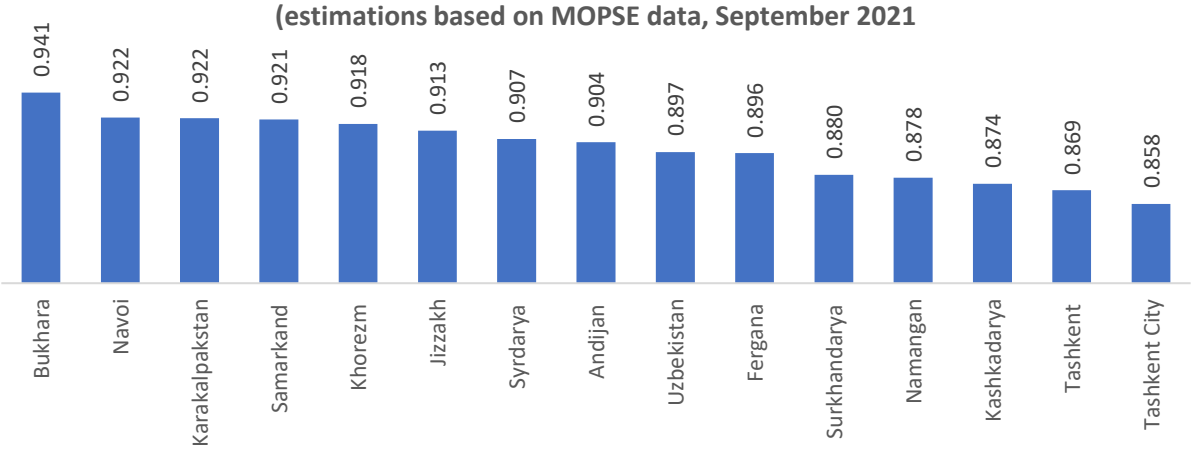


Figure 36. Gender parity index in preschool Enrolments in Uzbekistan (estimations based on MOPSE data, September 2021



In 2019-2020, UNICEF tried to understand parents' (and community's at large) knowledge, attitudes, and practices (KAP) related to preschool education and demand for preschool education. The study provides some interesting evidence on the equity issues in preschool education participation. The results of this nationally representative sample survey[27] shows that by 2020, parents enrol their young children in preschools mostly by 4-5 years and only a third of the 3-year-olds were attending preschool education. On the other hand, by the time child completes 6 years, at least a third of them are already enrolled in schools, and by the time they are 7 years old, almost all children are in schools. Apart from the regional variations, there are also spatial variations in preschool enrolments: as per the UNICEF (2020) study, in 2019-2020, while 54 percent of urban kids were attending preschools, only 41 percent of rural children had the opportunity to attend preschools. The gender-differences were further evident with the rural-

[27] UNICEF (2020): Parents' and Caretakers' Knowledge, Attitudes and Practices (KAP) towards Early Childhood Care and Education (ECCE) in Uzbekistan; UNICEF Uzbekistan.

urban divide: In rural areas, 46 percent of the boys were in schools compared to only 36 percent of the girls (2019-2020 academic year).

Apart from gender and spatial differences, parental education and household wealth were matters that affected young children's participation in preschool education. Children in the poorest households (household asset quintile Q1) had only half of the chances of attending preschools compared to children from the richest households. Not only that, but the girls in the poorest households had also only half of the chances of boys from similar economic backgrounds and less than 1/3rd of the chances of that of a girl from the richest households. Only around 36 percent of children with parents who had completed secondary education were able to attend a preschool whereas 72 percent of children whose parent(s) had higher education such as a master's degree were attending preschools in the country.

Figure 37: Preschool attendance rate by age (source: UNICEF, 2020)

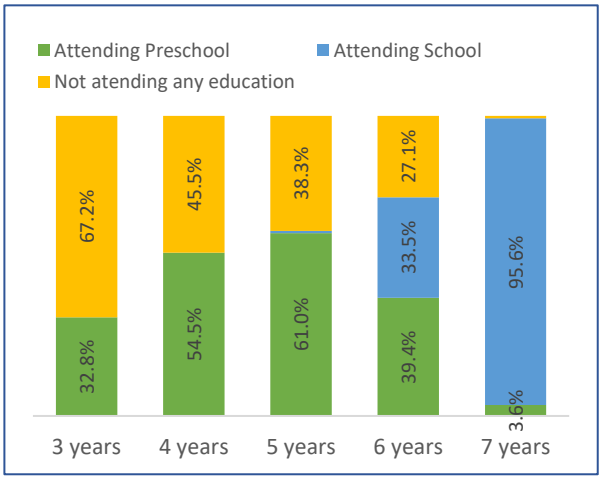


Figure 38: Preschool attendance by gender and location: (Source: UNICEF, 2020)

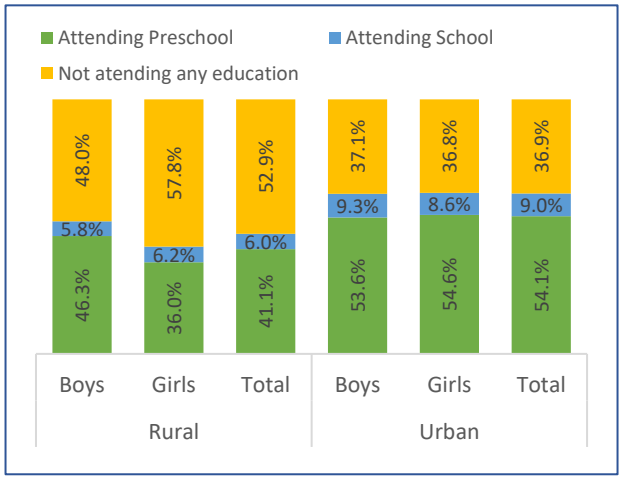


Figure 39: Preschool attendance by Households' economic quintiles (source: UNICEF, 2020)

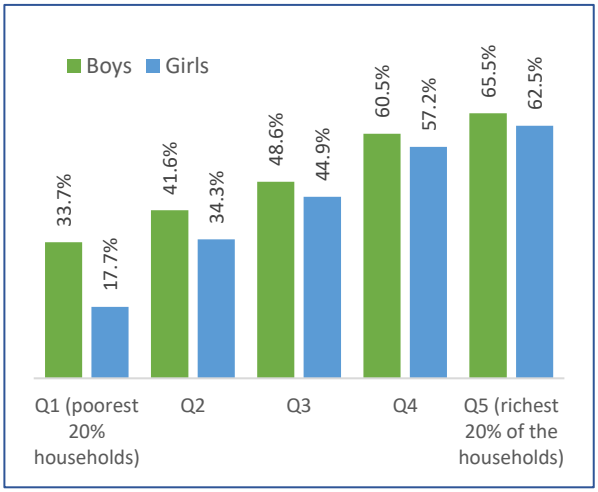
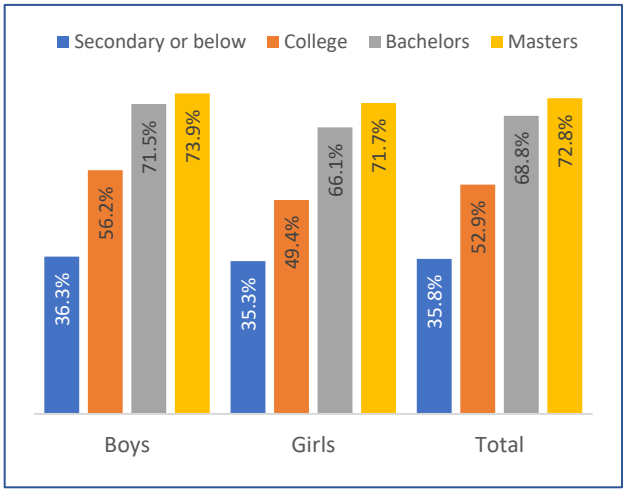
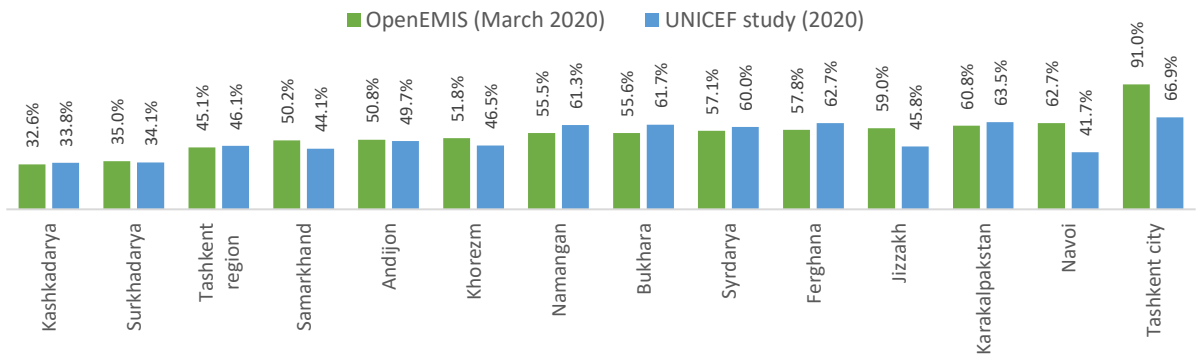


Figure 40: Preschool attendance by parental education levels: (Source: UNICEF, 2020)



Further, a comparison of household survey data and preschool EMIS for the year 2019-2020 revealed that the household survey data and results confirmed regional variations evident in EMIS.

Figure 41: Preschool attendance rates by Regions (source: MOPSE and UNICEF, 2020)



Another dimension of exclusion and inequity in preschool access is with reference to children with disabilities and special needs. The UN-SitAn on the people with Disabilities (2019) shows that while half of the children belonging to general category (without disabilities) were attending preschools, only 34% of children with disabilities (CWD) were attending any preschool programme, mainstream or special preschools (40% among boys and 25% among girls).

UNICEF (2020) study also analysed the parents' attitude towards preschool education. The study revealed that around 59 percent of the parents of young children expected that a preschool education would enable their children to learn and acquire basic literacy and numeracy skills and 52 percent of the parents also believed that preschool education could discipline their children. Many parents (43 percent) believed that attending preschools would enable children with better socialization skills. For a third of the parents, it was the prospects of children getting admission to a good school that prompted them to send their children to preschools. Around a tenth of the parents felt that sending a child to a preschool will free up parents' time, and they can engage in other activities.

The UNICEF (2020) also revealed the reasons for many parents not sending their children to preschools. Non-availability and lack of access to preschools, along with high costs of preschool education were the main reasons cited for children being out-of-preschools. Distance to the nearest preschool facility was cited as the main reason for not enrolling children in preschools by 30 percent of the parents/caretakers. Around 17 percent of the parents reported that they had put in applications to preschools, but because of the limited spaces in preschools and the observation of a "queue" system or waiting list, their children have not got admission yet – this shows lack of access due to limited provision. Another 28 percent of the parents (of children not enrolled in preschools) reported that the child was best taken care of at home. Around 24 percent of parents /caretakers reported that the cost of the preschool education was one of the reasons why they were not sending their child to a preschool. For a large majority of the parents/caretakers (61 percent), the choice of preschool for their children depended on the geographical access (proximity of the preschool to home). Around 16 percent of parents appreciated the preschools their children were attending for their discipline and quality of the preschool as well as warm and friendly staff of the preschool.

Around 45 percent of the parents (whose children were not enrolled in preschools) reported that providing a neighbourhood preschool would encourage them to enroll children in an ECE programme. 26 percent of the parents reported that if the preschools offered foreign languages (such as Russian) in preschools, they would like their children to attend preschools. For those 24 percent of parents who

highlighted the high costs of preschools as a reason for not sending their children to preschools would like to have a free or subsidized preschool programme so that it is affordable for them to enroll their children. Better equipment and play materials (19 percent) and free food (16 percent) were also demanded by the parents as a precondition for sending their children to preschools. Interestingly 12.5 percent of the respondents reported that they were not willing to send their child to a preschool or they found it difficult to spell out what will make them send their child to a preschool.

Projections for future enrolments: In 2021, out of the 2.7 million children in the age group of 3-6 years, 1.7 million are attending preschool education (63 percent). Government of Uzbekistan aims to achieve 80 percent enrolments of 3-6-year-olds in preschool education by 2030. For this, the government needs to ensure that by 2030, there are preschool spaces for around 2 million children. At present (2021) there are spaces only for 850,000 children and by 2030, government needs to more than double the spaces available now. This will also mean that the government needs to create spaces for at least 100,000 preschool groups (with each group having not more than 20 children). At present, there are only spaces for 46,000 groups.

SDG 4.2. "School Readiness" for the 6/7-year old's

A comprehensive definition of "school readiness" provided by UNICEF (2012) encompasses three dimensions (children's readiness for school, schools' readiness for children, and families' and communities' readiness for school). According to the EFA Global Monitoring Report (2007) "the consensus from research is that school readiness encompasses development in five distinct but interconnected domains – physical wellbeing and motor development; social and emotional development; approach to learning; language development; cognitive development and general knowledge". In the context of preschool outcomes, the concept refers to certain specific skills and concepts which, if developed well in children in the early pre-school years help them to enhance their social competence, adjust better in school and learn the skills of literacy and numeracy more effectively, and in a more sustained manner (World Bank India, 2009). A growing body of research demonstrates that children who come to school prepared with certain cognitive, language and socio-emotional competencies have better chances of success in the primary grades.

In 2014, UNESCO, UNICEF, Brookings Institution, and the World Bank came up with "Measuring Early Learning Quality and Outcomes" (MELQO), an initiative to measure early childhood development and quality of learning environments in low- and middle-income countries. MELQO consists of mainly two types of tools – MODEL (Measure of Development of Early Learning) and MELE (Measure of Early Learning Environment). Direct learner (child) assessment is part of MODEL as per the MELQO documents. In Uzbekistan, the Education Sector Plan 2019-2023 envisaged the development of MODEL and MELE tools for 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. One of the components planned under the World Bank's "Promoting Early Childhood Development" project (2019-2024) is to "establishing an education quality measurement system", and particularly, adaptation and pilot-testing of MELE and MODEL for measuring the quality of preschool education in Uzbekistan. The two instruments are complementary and were both intended to be adapted to align with national systems and standards and to be used to inform policy decisions to improve early childhood development[28]. Unfortunately, the system to measure education quality as envisaged in the World Bank's Project Appraisal Document (PAD)

[28] World Bank (2019) Promoting Early Childhood Development Project Appraisal Document

is yet to be established even after three years of project implementation. Hence, there is no data on early learning as in the MODEL (Measure of Development of Early Learning).

However, in 2020, one of the UNICEF Uzbekistan study tried to understand children's early learning or school readiness adapting tools used in the India Early Childhood Education Impact Study (CECED- ASER-UNICEF, 2017). In this study, children's cognitive, pre-literacy, and pre-numeracy were tested at age 6-7 using a School Readiness Instrument (SRI), adapted from the World Bank (2009) tools for Uzbekistan context. The competencies tested here are explained in the table below.

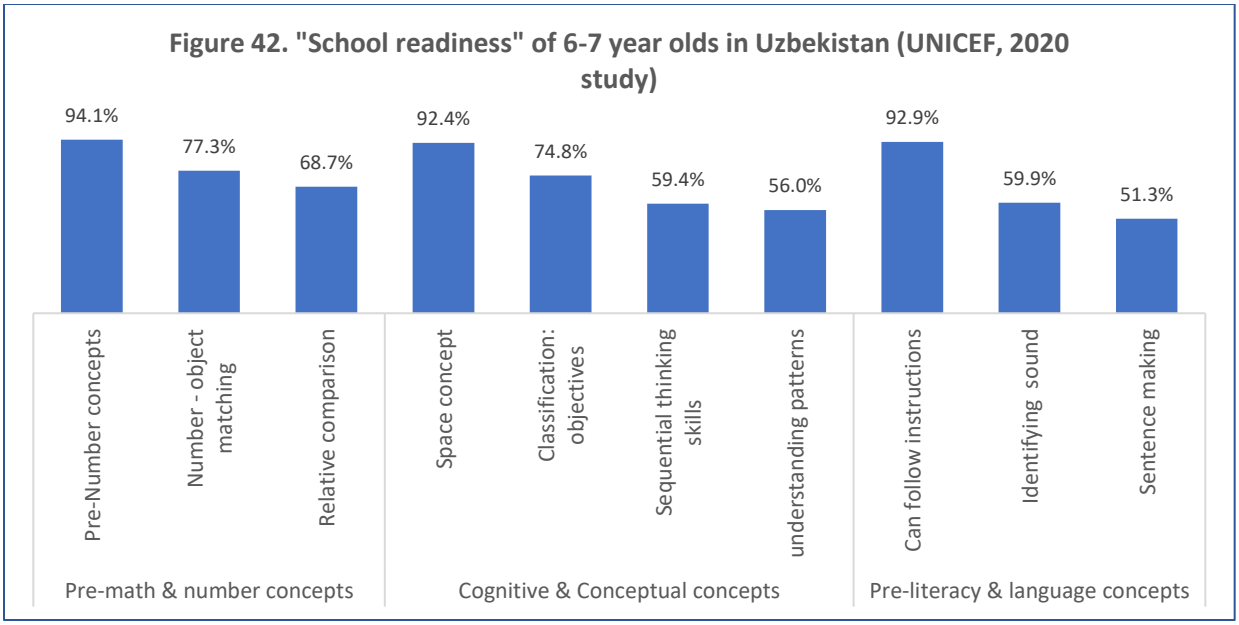
Table 7: School Readiness Assessment: Domains and Questions

Competency tested		**Assessment questions**
Pre-math & number Concepts	Pre-number concept	Given pictures of four apple trees, children were asked to point to the one with the least and most apples
	Number/object matching	Children were asked to match three numbers with pictures showing the same number of objects.
	Relative comparisons	Children were asked to point to a number (among 9, 3, 7, 8) that was less than the number 5.
Cognitive & conceptual concepts	Space Concept	Given two illustrations of children and houses, children were asked to point to the one in which the child was behind the house.
	Sequential thinking	Children were shown illustrations of banana and peeling of banana and eating it and were asked to determine the correct sequence for the pictures
	Pattern making	Children were asked to repeat and complete a pictorial pattern
	Classification	Children were asked to classify six items as either fruits or vegetables.
Pre-literacy & language concepts	Following instructions	Children were asked to raise their hands, and then to pick up an object and bring it to someone.
	Reading readiness	Children were asked to identify the beginning sound of words and to match the two words with the same beginning sound.
	Sentence making	Children were asked to describe two photographs in complete sentences.

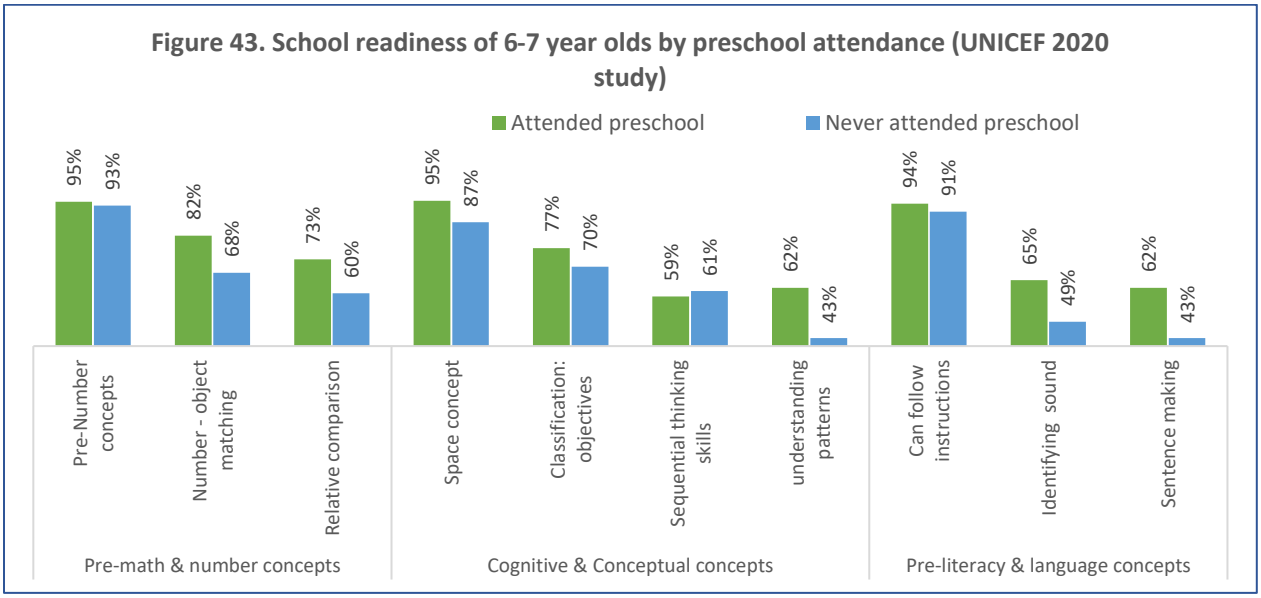
Source: Adapted from CECED, ASER and UNICEF (2017) and UNICEF Uzbekistan (2020)

UNICEF Uzbekistan (2020) study[29] which covered a nationally representative sample, assessed 6-7 years old children on competencies related to pre-math and number concepts, cognitive and conceptual areas and pre-literacy and language concepts.

[29] UNICEF Uzbekistan (2020): Parents' and Caretakers' Knowledge, Attitudes and Practices (KAP) towards Early Childhood Care and Education in Uzbekistan".



The analysis shows that a large majority of children were adept in “pre-number concepts”, “space concepts” as well as in understanding and following “instructions”. However, many of children could not do “relative comparisons”, understand patterns (“pattern making”), “sequential thinking” and “sentence making”. The study shows that 94 percent of children by the time they were 6-7 year olds, had pre-number concepts, 77 percent could do number-object matching and 69 percent were able to perform relative comparisons, all under the domain of pre-math and number concepts. Similarly, in the cognitive doman, 92 percent were able to understand the space concept, 75 percent could classify objectives, 59 percent were adept in sequential thinking and 56 percent in understanding patters. While 93 percent of children could follow instructions, 60 percent were able to identify the sounds of letters, but only a little more than half could make a sentence for communication.

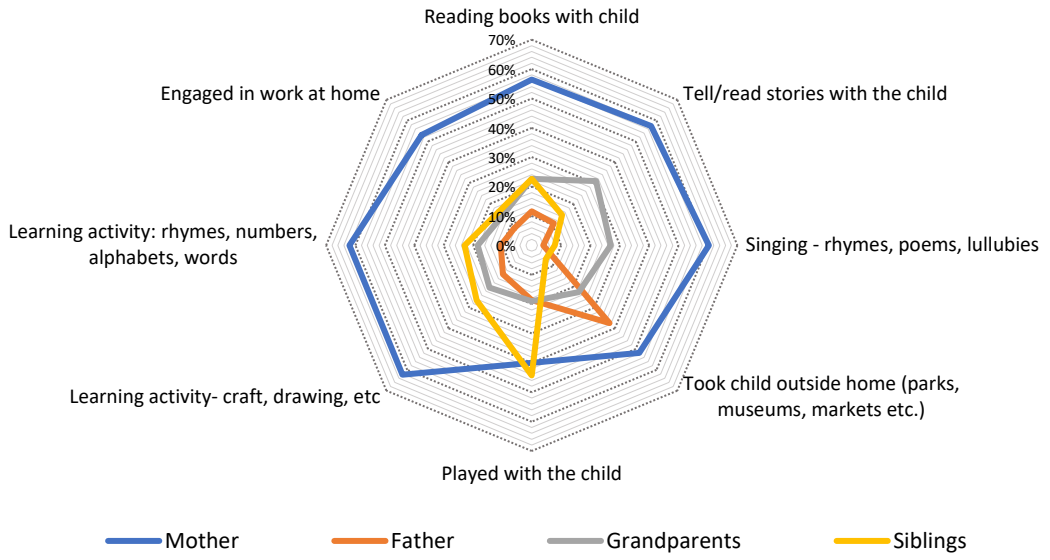


Source: UNICEF Uzbekistan (2020)

However, what is also important to note is that children who had attended preschools or currently attending preschools performed better in all aspects of school readiness compared to those who did not attend any preschools. Even after controlling for child and family level variations (such as gender, household wealth status, parental engagement etc.), participation in preschool education was the most important factor in improving school readiness skills of children related to pre-math and number concepts, cognitive and conceptual areas and pre-literacy and language skills. The analysis showed that preschool attendance contributed to better school readiness among children.

Apart from the attendance of young children in organized learning one year before entering school (SDG 4.2.2), SDG 4.2.1 is about young children developmentally on track in health, learning and psycho-social well-being. While preschools prepare children for schools for learning, and other developmental aspects, it is important that parents and families are also readied for supporting children in their holistic growth. In this regard, UNICEF (2020) study highlights that: (i) parents have limited understanding of the physical, psycho-social, emotional and cognitive developmental milestones young children should achieve at every age /stage of life (as set out in the ELDS); and (ii) while mothers and grandparents are greatly involved in childcare and nurturing children at home, fathers' involvement with children are very limited (only around 4 percent of fathers are engaging young children in their early childhood care and learning processes in Uzbekistan).

Figure 44. Nature of Engagement with child by various family members in the past week (UNICEF 2020 study)



Source: UNICEF (2020) study

The importance of results reported so far is that they are the first-ever evidences on some of the quality outcomes in preschool education in the country. These are results that will inform future planning of activities and interventions in preschool education in Uzbekistan. Many of the activities that were planned under ESP 2019-2023 were envisaged based on the anticipated results on the above aspects as well as drawing from international evidence.

Progress in implementing ESP 2019-2023

ESP 2019-2023 had put forward three policy priorities (access and participation, quality and relevance, governance and management) and 7 strategic areas/ priorities, and a set of activities to achieve the intermediate outcomes related to preschool education by 2023 (see section 5.1 of ESP 2019-2023, pages 93-100 for details).

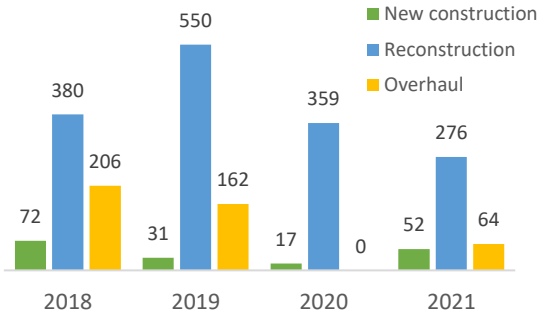
Policy Goal 1: Improve equitable access to and participation in education at all levels

Strategic Area 1. Expand preschool provision and improve physical conditions:

The ESP proposed to expand preschool education provision by constructing new preschools, increase the capacities of existing preschool spaces through reconstruction, renovation and rehabilitation of existing unused structures, establishing alternative, innovative, flexible ECCE programmes, and engaging private sector to construct and run new preschools.

Progress in new construction, reconstruction, and renovation of state preschools: The Ministry of Preschool Education **(**MOPSE) has constructed 172 new state preschools during the period of 2018-2021. In addition, MOPSE has also reconstructed and overhauled 1997 state preschools during the same period. Thus, in 2018, 658 preschools, in 2019, 743, in 2020, 376 and in 2021, 392 preschools were additionally readied in the State preschool sector for expanding preschool education. Overall, the state preschools in the country increased from 5186 in 2017 to 5981 by the end of 2021 (while MOF reports this figure, as per MOPSE data, in 2021, there are a total of 6197 state preschools in the country).

Figure 45. State preschools constructed or enhanced by MOPSE



Progress in establishing alternative models of Preschools: MOPSE currently implements three types of alternative models of preschools: (i) multi-age groups and play groups; (ii) early development centers; and (iii) mobile preschools.

***Multi-age play groups*:** The multi-age play groups are alternative preschools implemented with the technical support of UNICEF. In 2021, multi-age play groups were started in 8 locations in Khorezm and Namangan regions. These preschools are established in unused premises in selected location (Makhalla buildings, schools etc.) in rural and remote areas where the preschool enrollments are limited due to insufficient number of state-owned preschools. These preschools accommodate 16 half-day groups in two shifts and cover 400 children.

Early Development Centers (EDC): The Early Development Centers are implemented under the World Bank – GPE funded "Promoting Early Childhood Development Project" (implemented since 2019). The Early Development Centers are currently piloted in Samarkhand and Namangan regions. These EDCs are established in teacher training colleges located in rural and remote areas with limited number of state preschools. As of December 2021, there were 80 half-day, two shifts -play groups in EDCs, covering an estimated total of 1200 children. The EDCs also include a home visiting model, and this cover 140 families

with children with children with special needs (CWSN) in the age group of 2-6 years of age as well as 800 families (mostly from vulnerable populations) of children in the age group of 3-6 years.

Mobile Preschools: in 2020, MOPSE started 16 mobile preschools (schools in bus) and covered 1,536 preschool children living in 44 hard-to-reach Makhallas in the country. In 2021, the mobile preschools expanded to add another 49 mobile facilities, and thus covered 4,700 preschool children living in 98 hard-to-reach Makhallas.

Non-state Preschools: The President's Resolution (PP-3276) "On measures for the further Development of Activities for the Provision of Non-state Educational Services" (September 2017) incentivizes the establishment and cooperation with non-state actors in education. The President's Resolution No. PP-3651 on "Measures of Further Stimulation and Development of Preschool Education System" (April 5, 2018) provided that "*in order to further develop the system of preschool education, including the non-state sector of preschool educational services……., create favorable conditions for public-private partnerships in the field of preschool education*" and allowed for various forms of PPP in the field of preschool education.

While there are around 6000+ state preschool educational institutions in the country, the non-state /private preschool institutions have increased in the last few years. In 2017, there were only 250 preschools in the private sector. This number increased to 1437 private preschools in 2018, 7500+ in 2019, 12000+ private preschools in 2020 and 18548 private preschools in 2021. Out of the private preschools, 93 percent are in the form of "family-based preschools".

While only a third (33 percent) of the preschool enrollments are in non-state /private preschools, more than 79 percent of the non-state enrollments are in family-preschools. While the state preschools are large in size and accommodate on an average around 150 children, the non-state preschools, particularly the family preschools are located mainly in rural and remote areas and hence have an average capacity to accommodate 30-35 students.

Strategic Area 2: Safe and enabling learning environments

To ensure safe and enabling learning environment for preschool education, the ESP proposed to (a) build or upgrade preschool facilities, especially physical facilities to adhere to child-friendly principles; (b) train 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) train 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.

COVID19 and the challenges and responses in preschool education

The biggest threat to safe preschool education emerged due to the COVID19 pandemic, and the preschools were closed for several months starting in March 2020. During the lockdown, the Government at large and the MOPSE had to come up with strategies to ensure safe and enabling interventions for young children to meet their ECCE needs. These include: (i) immediate measures such as preschool closures and developing and implementing communication and outreach programmes to ensure safe behaviour among young children; (ii) medium term strategies such as developing and implementing distance programmes for imparting ECCE and preparing safe and hygiene guidelines for preparing preschools to open and operate in the long term; and (iii) long-term programmes for re-opening preschools and preparing the teachers and students for the same.

In the short term (March – May 2020), MOPSE closed the preschools and suspended face-to face education in preschools. During the period, MOPSE came up with a specialized children's entertainment and educational television channel for young children in the preschool age group. The channel, titled "Aqlvoy" was tasked with the creation of programmes and providing information in an interesting and understandable form, stimulating children to acquire knowledge, developing intellectual and creative abilities (edutainment).

UNICEF worked with the Innovation Centre under MOPSE in the conceptual development and production of online resources and video lessons for young children and special educational and engagement programmes based on preschool curriculum ("Ilk Kadam"). Around 100 programmes were developed (Language and speaking comprehension: 20; English lessons: 20; Gymnastics and physical activities: 15; Creative art: 10; Math's and mental arithmetic's: 14; Dancing classes: 20; and Cooking series: 6). In addition, through Aqlvoy TV, telegram channel (viewership on an average is around 43000) and social media broadcasting, 30 ECE programmes were developed till May 20, 2020.

However, by September 2020, MOPSE decided to gradually re-open preschools. By the end of end of September 2020, more than 90 percent of the preschools were reopened in the country, while ECCE provision through television programmes also continued.

To facilitate the re-opening of the preschools, one of the important steps taken by the government was the development of Safe Preschool Re-opening strategy and guidelines. MOPE worked with the Ministry of Health, UNICEF and WHO and developed Safe practices in preschools guidelines (2020). The Guidelines on safe preschools Re-opening and Operations included two components: (a) ensuring safety and hygiene practices in preschools; and (b) ensuring well-being of children. The guidelines on safe and hygiene practices focuses on the sanitary norms and measures to be taken to provide a safe environment in preschools.

The well-being and development guidelines focus on ensuring the well-being, especially psycho-emotional well-being, and development of children. This section includes recommendations on the pedagogy and practices for teachers on ensuring wellbeing and continuation of ECCE in preschools in a face-to-face context, adaptation of the preschool curricula to the new requirements (including the requirements on social contact and distancing), the organization of learning and play activities, safe use of teaching/learning materials, as well as effective engagement with parents and caretakers of preschool children.

To support the safe re-opening of preschools, MOPSE also developed specific training programmes for preschool teachers. UNICEF supported the Ministry in developing the training programmes and designing the training materials for preschool teachers and staff on COVID19 related safe practices. MOPSE also prepared a wide range of Information, Education and Communication (IEC) materials for preschools in three languages - Uzbek, Russian and Karakalpak and distributed these materials to all preschools in Uzbekistan, both with UNICEF support. These included: posters on: (a) hand washing practices, and respiratory Hygiene for children as well as cleaning requirements for staff; (b) booklets on a questions and answers (Q&A) related to COVID-19 for parents, staff and communities; (c) memos on "How to Ensure Safe Environment in Preschools for Children and Staff" and memo for Pedagogues on how to organize educational and recreation activities during COVID-19 pandemic; and (d) short videos on sanitary norms and hygiene, cleaning and safe behaviour practices aimed at children as well as community.

Water, Sanitation and Hygiene (WASH) facilities in preschools

While government of Uzbekistan has invested heavily in improving the infrastructure of preschools, some areas of concerns are related to preschool Water, Sanitation and Hygiene (WASH) facilities. In 2020, during the COVID19 pandemic, to understand the safety of preschools for reopening, UNICEF, along with MOPSE and SISEQ carried out an analysis of WASH facilities in state-run preschools in Uzbekistan[30]. The analysis revealed the following:

- By 2020, repair and infrastructure upgrading work was completed in 57 percent of the state preschools while the rest 43 percent schools need further repair and enhancing of infrastructure.
- Almost 2/3rds of the state preschools received drinking water through a pipe, while in 17 percent of the state preschools, drinking water were to be purchased or brought from home. In around 15 percent of the preschools, water from an artesian pipe was used. While 80 percent of urban preschools have piped water, only half of the rural preschools and 39 percent of remote preschools have piped water.
- Among the state-run preschools, around 24 percent preschools did not have any functional toilets in 2020. On an average, 41 percent of preschools reported that their functional toilets were in the form of a cesspool, mostly with a floor slab. In Jizzakh, 60 percent of the state preschools and in Khorezm, 59 percent of state preschools reported that the functional toilet available in their premises was in the nature of a cesspool. On the other hand, in Tashkent city, 99 percent of the state preschools reported having a flush toilet.
- On an average, in state preschools in Uzbekistan, a functional toilet was available for every 32 children. These figures varied by regions – in Tashkent city preschools, a functional toilet was available for every 12 children whereas in Samarkhand and Surkhandarya, a functional toilet was expected to serve more than 50 children.
- More than a tenth (11 percent) state preschools suffered from high children: toilet ratio (CTR) of above 50 (too many children per toilet). In Samarkhand, a third of the state preschools reported a CTR above 50, and in Jizzakh, a fifth of the state preschools too had a CTR of above 50.
- In around 54 percent of the state preschools, the functional toilets were located within the preschool building; while in the rest, functional toilets were situated outside the preschool building. In Tashkent city, 99 percent of the state preschools reported having toilets situated within the preschool building whereas in Surkhandarya, only 27 percent of state preschools had reported having toilets within the preschool building.
- Based on the WHO – UNICEF -The Joint Monitoring Programme (JMP) classification of sanitation facilities, on an average, 27 percent of the state preschools in the country had basic facilities in 2020 while 59 percent state preschools had only “limited” toilet facilities; and the rest 31 percent state preschools lacked even limited facilities.

Overall, the analysis showed that state preschools need to review and upgrade WASH facilities in preschools, particularly those in rural and remote areas.

[30] UNICEF (2020): A Rapid Assessment of Water, Sanitation and Hygiene (WASH) in schools in Uzbekistan. UNICEF Uzbekistan.

Figure 46. Proportion of state preschools where the building is repaired and where repair work is needed (UNICEF WASH analysis, 2020)

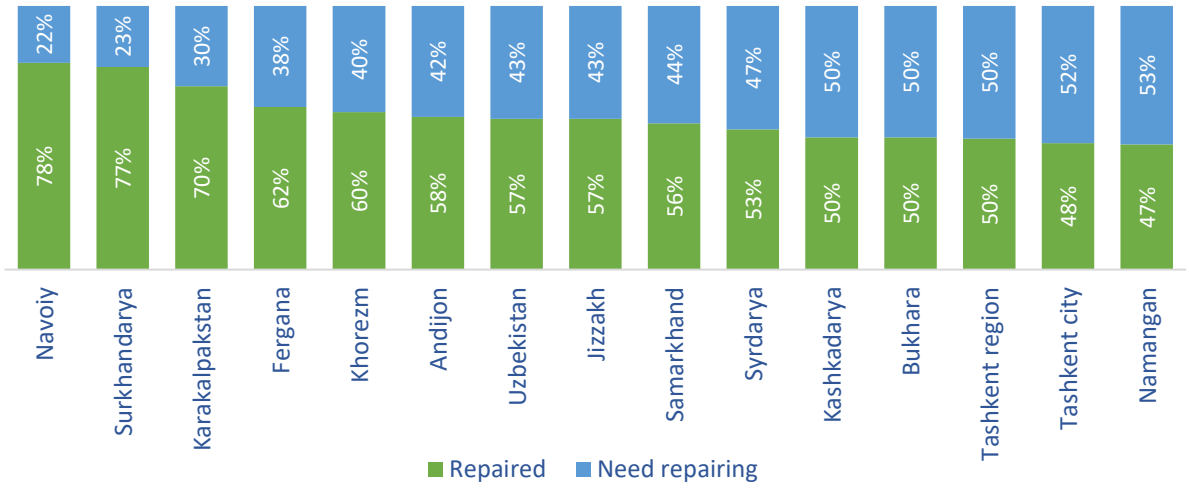


Figure 47. Source of drinking water in state preschools in Uzbekistan (2020)

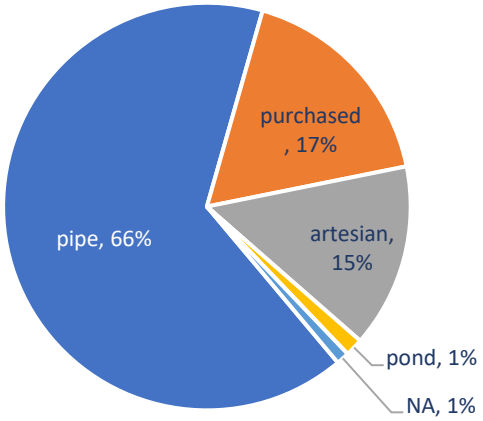


Figure 48. Availability of drinking Water in state preschools in Uzbekistan (2020)

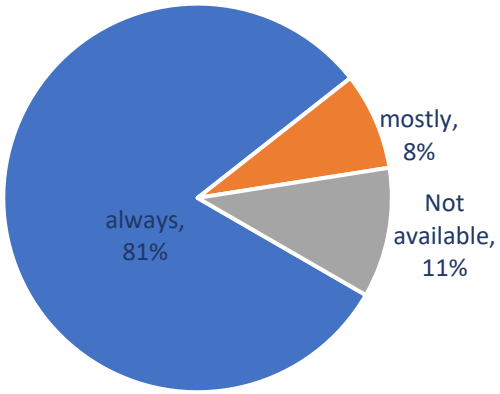


Figure 49. Type of toilets available in state preschools

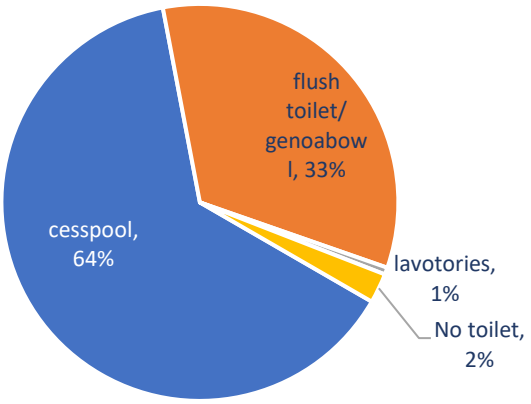
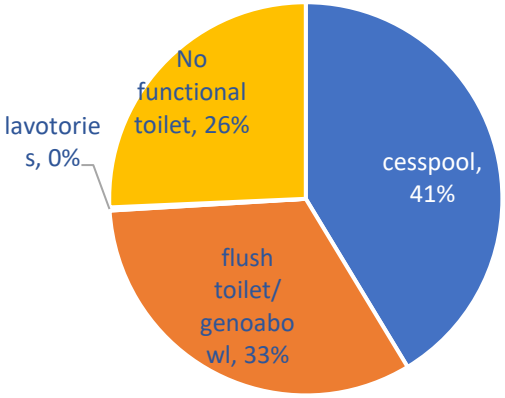


Figure 50. Type of toilets in state preschools accounting for functionality



The ESP activities areas that received limited attention in terms of implementation are those related to disaster risk management (DRM) as well as those related to prevention of crime and protection against violence and abuse, including gender-based violence in school, home and external environments. These are areas that needs to be incorporated into preschool teachers' and managers' in-service and pre-service training. While the interventions and training provided to preschool teachers in response to COVID19 partially addresses the management of disasters and emergencies, there is indeed a need to incorporate these points in the future curriculum and pedagogic trainings.

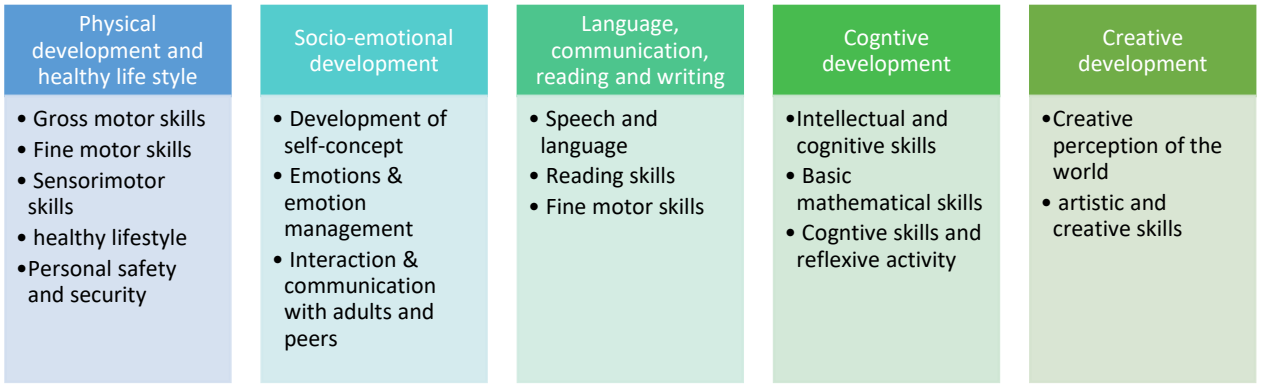
Policy Goal 2: Quality and Relevance

Curricular reforms:

The State Requirements for the development of children of preschool age (Early Learning and Development Standards – ELDS) is a document that sets out the national principles for the development of children from 0-7 years, determining what a child should know and be able to do during the early years of his/her life. The ELDS were originally developed with UNICEF support and approved by the government in 2011. Based on the ELDS (2011), a concept for the national programme for preschool education, known as "Balajan" (children in Uzbek language), was adopted by government (2011). However, with the enhanced focus on children's early learning and development in alignment with the SDG 4 and in preparation for the Law on Preschool education, it was important to review the ELDS and prepare preschool programme accordingly.

In 2018, the Ministry of Preschool Education (MOPSE) revised the Early Learning Development Standards (ELDS) with UNICEF support and based on the same, developed a new competency-based preschool curriculum called "ilk Kadam" (in Uzbek language, it means "First Step") to enable to children to get holistic development addressing their social, emotional, physical, cognitive and linguistic competencies that will enable them to be prepared for school and ready for learning in formal education. The revised ELDS is a set of statements that reflect on the minimum expectations concerning development, knowledge, and skills of pre-school children of 0-7 years groups.

Chart 3. Domains of Child Development defined in ELDS (2018)



Source: Ministry of Preschool Education (2018): ELDS

The "*State ECE curriculum"* is a regulatory document developed in line with ELDS, which reflects goals and objectives of pre-school educational institutions, key concepts of educational activities, as well as basic competencies expected from children when transitioning to the next stage of education. The State ECE curriculum is a mandatory document to be used as a foundation for developing a variety of preschool education programme in all state and non-state preschools in Uzbekistan. The State curriculum uses a

competency-based approach, requiring holistic development of the child - a combination of knowledge, abilities, skills, and values of a child. The State curriculum has been used in all preschools in the country since 2019. In 2021, UNICEF and MOPSE initiated a review of the curriculum implementation to understand the areas for further improvement.

Chart 4. Competencies for Young children as envisaged in the State curriculum (2018)

Source: MOPSE (2018): "Ilk Kadam" (First Step), the State curriculum.

Teaching Learning Materials and Technology in preschool education

In preschools, the MOPSE has defined appropriate teaching learning materials (TLMs) and play materials as per the curriculum and ELDS. Under the 'Component 2 – Increasing Access to Quality Early Learning Environments' of the World Bank – GPE funded "Promoting Early Childhood Development Project" (2019-2024), the *sub-Component 2.1 – Improving Early Learning Environments* for a total cost of US$45.6 million is aimed at financing the purchase of modern child-friendly and age-appropriate equipment and furniture, as well as *teaching and learning materials*. The TLM goods here include toys, play zones, storybooks, recreation and sport equipment, desks, chairs, wardrobes, and shelves. MOPSE is expected to ensure that the specifications of these equipment and furniture are in compliance with the applicable safety and health standards and regulations. Under the project, approximately 10,800 preschool groups are targeted to be benefiting from this sub-component (8,290 classrooms for full-day groups, and 2,510 classrooms for half-day groups, thus at least one classroom each in 4,940 public preschools are expected to benefit from this.

As per the latest Implementation Status & Results Report (ISR) available as on 5 January 2022, the supply of TLMs and play materials though delayed for two years, "there has been recent progress" and "that has resulted in ten contracts signed for the delivery of preschool education furniture and learning materials to all public preschools, with delivery expected by August 2022"[31].

Regarding the use of technology for preschool education, as described earlier, with UNICEF support, MOPSE had developed and broadcasted television programmes for preschool age children during the COVID19 lockdown in 2020. MOPSE has now institutionalized the Aqlvoy channel for preschool children. In addition, there are two major digital public goods that UNICEF introduced at the global level as well as Europe and Central Asia (ECA) Regional level being adapted to the Uzbekistan context which will add to enhancing the learning experiences of children: "Bebbo", the parenting app as well as the "Learning Passport" aimed at various stakeholders in preschool education sector. To enhance ECCE related

[31] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099405001052241406/disclosable0ve0737000sequence0no006

outcomes and leverage the digital solutions, UNICEF is supporting MOPSE in adapting two of its digital initiatives to Uzbekistan context: Parenting App (Bebbo) and Learning Passport (LP). While the former is to enhance positive parenting behavior, LP aims to provide continuous access to quality education to both teachers and parents. Uzbekistan is the first country to launch the Parenting App on 19 November 2021. Within the first day of the app being available in the stores, 2500 parents enrolled in the program.

The digital preschool LP platform aims to enhance engagement of families on homeschooling and enhance collaboration between preschool educators/ staff to share ideas/ good practices. Materials are developed based on state curriculum and ELDS, addressing five domains of ECD, with specific focus on addressing needs of CWSEN and CwD. The Launch of the initial version of the "Bolalik Akademiyasi" Learning Passport for Uzbekistan is planned in early 2022.

Teacher/ staff Work Force Development

Preschool Teachers: In 2017, there were around 63259 preschool teachers. As per the information available from MOPSE (December 2021), there are a total of 134,641 staff working in various capacities in preschools in the country. State preschools account for 82 percent of all preschool staff compared to only 18 percent by private preschools. This must be understood in the context of enrolments - state preschools accounted for 67 percent of all enrolments in 2021. A cursory glance at the data shows that most of the state preschools were managed by a Director level person. On the other hand, while there are over 12,000 preschools in private sector (both PPP based and family-based preschools), only 2299 were managed by a Director level position. On an average, there were 10 teachers /educationists per state preschools whereas private preschools, in general, was managed by one single teacher / educationist. In state preschools, the Pupil: Teacher Ratio (PTR) was less than 20 (17.8:1 or 18 children per one educator). On the other hand, in private preschools, the PTR was 30:1 (30 children per one educator).

Table 8. Preschool Teachers and other staff (April 2021)

	State preschools	Private preschools	State and private preschools	Share of State preschool teachers in total	Share of private preschool teachers in total
All Staff	103513	22431	125944	82.2%	17.8%
Director	6091	2299	8390	72.6%	27.4%
Methodologist	4821	829	5650	85.3%	14.7%
Teachers	63502	16132	79634	79.7%	20.3%
Music Teachers	9824	904	10728	91.6%	8.4%
Dance teachers	2070	119	2189	94.6%	5.4%
Physical Education teachers	5913	746	6659	88.8%	11.2%
Foreign language teachers	5417	953	6370	85.0%	15.0%
Psychologist	3479	236	3715	93.6%	6.4%
Defectologist	1249	83	1332	93.8%	6.2%
Speech therapist	1147	130	1277	89.8%	10.2%
Source: Ministry of Preschool Education					

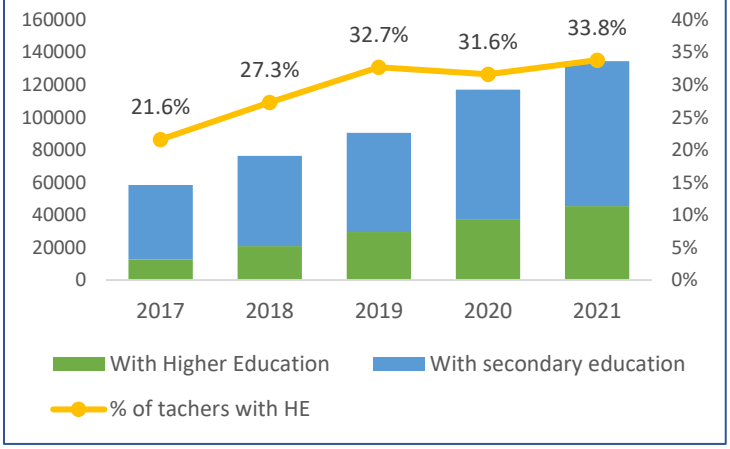
An important characteristics of preschool education staff in Uzbekistan is that a large majority of them have only received secondary education. The proportion of staff in preschool education institutions who

have a higher education qualification (Bachelor's degree or above) was only 32 percent in April 2021. While 96 percent of Directors in state preschools possessed higher education qualification, only 62.5 percent of private preschool directors had higher education qualification. However, the most important category of staff is the teachers. Only less than 19 percent of the preschool teachers /educationist has higher education qualification and there is hardly any difference between state preschool teachers and private preschool teachers in this aspect. Even among methodologists, only 62 percent have higher education qualification – 67 percent of methodologists working with state preschools and 33 percent of the methodologists working with private preschools.

Table 9. Proportion of preschool education staff with higher education qualifications

	State preschools	Private preschools	Total
General	**32.6%**	**27.8%**	**31.7%**
Director	96.0%	62.5%	86.8%
Methodologist	66.6%	33.1%	61.7%
Teachers	**18.7%**	**18.5%**	**18.6%**
Music Teachers	17.2%	23.1%	17.7%
Dance teachers	16.9%	42.9%	18.3%
Physical Education teachers	22.4%	27.6%	23.0%
Foreign language teachers	79.8%	71.8%	78.6%
Psychologist	84.1%	81.4%	83.9%
Defectologist	96.6%	94.0%	96.5%
Speech therapist	87.0%	95.4%	87.9%
Source: MOPSE, April 2021			

Figure 51. Number of preschool teachers with education qualifications



As per the data provided by MOPSE, in December 2021, there were around 134641 teachers working in preschools. Over the years, the number of preschool teachers has increased in line with the increase in preschools. It is also to be noted that the share of teachers with higher education qualifications in the preschool teacher workforce has also increased – as of now, a third of the preschool teachers have higher education qualifications. While it is difficult to enhance the qualifications of teachers in the short-term or hire more people with higher education qualifications to replace existing teachers, through consistent and targeted training it is possible to enhance the capacity and competencies of preschool teachers. It is also important, even with teachers with higher education, to train them in using the new curriculum.

To enhance the capacity of preschool teachers to implement the new curriculum, MOPSE developed an in-service training programme with technical assistance from UNICEF in 2019. A core team of 32 National Master Trainers and 185 Trainers from 14 regions of the country were trained initially. With the support

of Master trainers, 38,400 Preschool teachers from 5,738 preschools were trained in a cascade mode in 2019.

Based on the assessment of further needs, UNICEF provided methodological support to MOPSE to develop a series of seven teacher guidebooks as part of the preschool teachers' in-service training. The content /focus of the teacher training programme covers topics such as: (i) Development of programs in a preschool education; (ii) Planning the learning process in preschools based on a child-centered approach; (iii) Learning through play / games; (iv) Individualization of the learning process: Inclusion of children with special needs; (v) Partnerships with families and the local community for preschool education; (vi) Observation and assessment of child development; and (vii) Teacher Guidebook for resuming Preschool Education programmes in line with new curriculum after the COVID-19 Pandemic.

Table 10. Preschool Teachers' In-service Training Programme

Guidebooks	**Description**	
On the Development of programmes in Preschool education	This Guidebook aims to support and guide the preschool teachers in effectively developing various aspects of preschool programmes for children. The guidebook provides insights into how to plan preschool activities, how to organize them and how effectively manage these programme, particularly in line with the educational as well development and care process in preschools to implement new preschool curriculum ("Ilk Kadam", 2018) in line with the revised Early Learning Development Standards (2018).	
Planning the learning process based on a child-centered approach	This guidebook is developed with the aim to support preschool educators to implement the National Curriculum "Ilk kadam" by adopting a holistic, child-centered approach. The guidebook directs preschool teachers to follow a programme that harness the strengths and interest of individual child and thus create a nurturing learning and development environment for child in preschools.	
Learning through play.	The State Preschool Curriculum - "Ilk Kadam" – aims to use plays and games as an important process for learning and development of children. The Guidebook provides preschool teachers with important information on the organization of various plays and games innovatively to help children to master the necessary socio-emotional and psychological skills and development, including methodological means of organizing of plots and role-playing, didactic and outdoor games with rules, as well as play actions with toys and substitute items, etc.	

Individualization of the learning process: Inclusion of children with special needs	Inclusion of children with special needs (CWSN), particularly Children with Disabilities (CWD) is an important education reform that the country is aiming at in the coming days in line with the recent ratification of Convention of the Rights of People with Disabilities (CRPD) by Uzbekistan as well as the Education law (2020). This methodological guide is intended for teachers, specialized teachers, psychologists, and parents to support inclusive preschools. The guide presents several modern pedagogical approaches to realize the rights of all children to education in an inclusive set up in accordance with the Early Learning Development Standards (ELDS, 2018) and in the framework of implementation of the National Curriculum "Ilk Kadam"(2018)..	
Partnerships with families and the local community**.**	This guidebook presents the preschool teachers with modern approaches of partnership and networking of preschool educational institutions with families and the local communities. It reflects on the nature of the relationship between teachers and children, as well as parents and caregivers in the atmosphere of goodwill, trust, empathy, respect to the child's needs and value his/her dignity, innocence, independent and creative thinking to begin to strive for child's own growth.	
Observation and assessment of child development	This teacher guidebook provides methodological recommendations for teachers of a preschool education on the organization of pedagogical observation of the achievements of the individual development of children in different age periods of preschool childhood. The guide emphasises necessity and importance of observing preschool children and also reveals the methodological foundations of the observation, goals and objectives of observation, documenting the results of observations on development charts so teachers take appropriate child-oriented approaches to help holistic development of a child.	
Teacher Guidebook for resuming Preschool Education programmes in line with new curriculum after the COVID-19 Pandemic	In line with the Safe Preschool Reopening Guidelines, a teachers' training programme was developed to provide methodological support to teachers on resuming preschool activities after pandemic and emergencies and "building back better". This in-service training was developed for online training and is focused mostly on providing support to the most vulnerable children and ensuring children adapt better and recover learning /development losses. The set of general guidelines and recommendations for their application in practice are developed in line with the planning and implementation of the State Curriculum "Ilk Kadam". The focus of this manual is on practical measures that should be undertaken when the ECE resumes its work to ensure the process of implementation of the State Curriculum "Ilk Kadam" for preschool education institutions.	

Teacher Professional Standards and Teacher Qualification Framework for preschool teachers

Effective preschool educators are critical for realizing the optimal early learning and development experiences for children and preparing them for schools. The MOPSE and SISEQ, together with technical support from UNICEF developed Teacher Qualification Framework (TQF) Teacher Professional/ Competency Standards for preschool teachers in 2019. UNICEF (2018)'s Teacher Workforce Policy Review recommended various measures for improving teacher standards and qualifications and the development of Teacher Professional Standards was perfectly in alignment with the recommended steps. In February 2020, Preschool teacher professional standards was finalized and approved by the MOPSE (Order #98, dated 1.06. 2020)

As evident from global experiences, Teacher Professional standards (TPS) is one of the most important tools for managing education quality, and the best way to ensure its continuity. It is expected that teachers possess certain professional competencies to create an enabling environment for children, providing equal opportunities for all to learn in their own individual pace, as well as develop their individual potential and interests. Competencies are a comprehensive combination of knowledge, skills and motivation to perform certain activities (based on acquired values). A competent professional that meets quality requirements, can effectively perform his/her professional tasks. It is worth noting that in modern understanding, competencies include not only skills, knowledge and understanding, but also values and attitudes, which are considered to be the most crucial component of appropriate and effective behavior (UNICEF 2021).

Through the TPS, the government has tried to define key teacher competencies required to ensure quality fulfillment of his/her professional tasks, such as: planning, organizing, teaching, and evaluating the learning and educational processes. Quality requirements for teachers and educators specified in these standards are expected to contribute to creating an enabling environment for holistic development and effective learning of young children and children of preschool age, as well as unlocking their full potential and achieving high academic performance. The personality, temper and teaching style of each educator is unique; however, the approach they take to children, to their learning and development should be universal, along with the responsibility that educators bear for the child. Professional standards serve as a common denominator of all educators with diverse teaching methods (UNICEF 2021). The competencies defined in the TPS include:

- A holistic approach to the child's development and early education, taking into account child's individuality and rights, as well as importance of the early childhood development in shaping child's personality,
- education planning: what educational objectives will be pursued and when, how planning will ensure integration of various development domains,
- teaching: what educational strategies will be used and how will the learning environment be organized to meet appropriate age, group and individual needs of children,
- learning assessment: how will the child's development be monitored; what assessment strategies will be used to record actual progress of children in all development domains,
- professional development: participation in continuing education courses to improve teaching practice, skills and self-evaluation, and
- cooperation with families: knowing the family, informing, and communicating with the family, engaging the family in early childhood activities, making joint decisions, etc.

Professional teacher standards have been developed based on a number of important principles learned from experience gained in early childhood development programmes, as well as from recent

advancements in pedagogy and psychology of young children. These principles define the place and the role of an adult, in particular a teacher / educator, in the child's development. These principles include:

- A rights-based education approach, which implies that educators are responsible for implementing more inclusive practices,
- Child development is a holistic and integrated process, where the highest possible development outcome depends on stimulation and interaction with the child,
- An adult is the first person whom a child trusts; everything a child does and learns depends on adults, therefore the latter must ensure adequate environment for child's quality care, growth, development and learning, and
- Child development is an individual path, and adults must have a very good understanding of early childhood development process (stages of development, variability of pace and intensity of development), as well as child's individual inclinations, needs, and interests.

During 2020-2021, MOPSE with UNICEF support, piloted the TPS in the preschools in 3 regions (Bukhara, Namangan, and Syrdarya) of the country as well as in and Tashkent city in May 2021. UNICEF is also supporting SISEQ and MOPSE in revising teacher attestation mechanisms and evaluation criteria for different teacher categories in line with teacher professional standards. UNICEF is currently supporting SISEQ to revise the teacher attestation mechanisms and evaluation criteria for distinct categories of teachers so that they are in line with the new teacher professional standards and international best practices. As part of this, 40 preschool education specialists were training in carrying out the pre-tests. Teacher standards for preschools were finalized based on the results of the pretests and the government is reviewing it for final approval.

Review of pre-service and in-service curriculum for preschool teacher education: To support the curricular and pedagogic reforms in preschool education, teachers need to be prepared and MOPSE, with technical support from UNICEF has initiated a process of reviewing and revising the teacher training and retraining systems. At present, a review of the existing teacher training curriculum (both pre-service as well as in-service), assessment of the needs based on preschool curriculum and implementation strategies, and review of the experiences and lessons from international best practices, are carried out for developing a roadmap for revision of the pre-and in-service teachers' training system for preschool education.

Policy goal 3: Governance and management

Systemic reforms, governance, and management

As described earlier, since the MOPSE came into existence in September 2017, a lot of reforms specifically aimed at preschool education sector has been carried out. After a thorough review of the specific characteristics of preschool education sector in Uzbekistan as well as drawing lessons from international experiences, the MOPSE developed a new specific Law on Preschool Education (December 2019) that brings out the vision, goals, roles and responsibilities and rights and duties of children and service providers. The development of Public-Private Partnership (PPP) models, revision of ELDS and development of new curriculum as well as a range of reforms were initiated within a short period of 3-4 years in the country. There have been several reforms introduced aimed at reforming the preschool teachers and their status in the society, including raises in the salaries for preschool teachers.

MOPSE has equipped 88 percent of all state preschools with computers and 93 percent of the state preschools are connected to internet.

Due to MOPSE's proactive efforts, the preschool education sector has also managed to attract funding from various international agencies. At present, World Bank – GPE funded "Promoting Early Childhood Development Project" for US$ 73.85 million are under implementation (2019-2024). As of now, only a little over a tenth of the project resources are disbursed.

Monitoring and Knowledge Management

Education Management Information System: Till recently, the data on preschool education, collected and compiled by the State Statistical Committee (Goskomstat) and published on https://stat.uz/en/ mainly included the number of state preschools, enrollments and teaching staff. In 2018, at the request of the MOPSE, UNICEF carried out a detailed analysis of the gaps in Education Management Information Systems (EMIS) in the country. UNICEF's analysis of the preschool data systems brought out the following limitations in EMIS in 2018. The main issues identified are summarized below:

- Lack of a harmonized data collection system, with parallel information flows, as different government bodies collecting information from preschools /schools at different points in time (some of which are duplicating the same information without adding any value);
- Absence of a unified data monitoring system, with data collected fragmented across different databases or paper-based reporting, with limited exchange or triangulation of information.
- Information collected were limited: for example, data on children with disabilities and exclusion of less severe disabilities from monitoring; or data on preschool infrastructure and facilities. Information for some key information were never collected, and those collected were limited in the scope for generating indicators. Only a few ECCE indicators are routinely calculated in Uzbekistan.
- Lack of routine indicator generation, reporting, monitoring and usage of data for decision making, such as monitoring progress over time against set benchmarks, analyzing inequities in access to pre-school education across different dimensions, and using data to develop and inform strategies and policies to improve access, equity and quality in early childhood education.
- Lack of data from household surveys which could compensate for the lack of administrative data available, as well as enable certain types of equity analysis which require household data, such as analysis of pre-school participation by wealth quintile, parent education and profession, and language spoken at home.
- Lack of transparency of the data, with most data and indicators confined for usage by the government and not available to the public; and
- The inability to track individual students' attendance, behavior and performance especially when they transfer from one pre-school or school to another.

The analysis (2018) further looked at the bottlenecks in EMIS implementation. These were:

- **Lack of IT infrastructure and IT-literate school staff:** A modern EMIS generally requires Internet connectivity (though not necessarily a permanent connection), at least one PC in good order for administrative purposes, and an administrative staff member with dedicated time and IT expertise to enter data in an online system. Delays in ensuring this level of IT infrastructure and staffing can delay the implementation, nation-wide coverage, and success of the EMIS. Currently the majority of pre-schools and schools in Uzbekistan are connected to the Internet, with the main exception being smaller pre-schools and schools and those in more remote areas. An offline EMIS provision should be available for these pre-schools and schools.

- **EMIS was not developed with the needs of all types of users in minds:** An EMIS is sometimes only developed with technical considerations in mind and the requirements of the Ministry of Education, which leads to a high likelihood of failure. During development, the EMIS needs to be pilot tested with users at all levels, in schools, regions and at national level, to get honest and critical feedback from all stakeholders and types of future users of the system. In addition, it would be highly beneficial if a detailed mapping of data collection processes is conducted to ensure that the EMIS can meet all the existing information needs, as well as a questionnaire for stakeholders to find out what kind of functionality they would need when the system is digitized, any obstacles they foresee during digitization, and any suggestions / solutions.
- **Parallel data collection:** An EMIS is not implemented by all schools and regions on the same day, but it is a gradual process. This means that there needs to be a plan for parallel data collection – as some schools will be using the EMIS, and some will continue to use the previous method of reporting data. What has happened in some other countries is that it led to a parallel data collection process, where the old system continues to be used to collect key data for monitoring and planning, while the EMIS is an additional workload for some schools where it is being introduced. Schools are naturally reluctant to do the same work twice, so this should be avoided. It can greatly slow down the process if the EMIS imposes a burden on schools. Instead, there needs to be a plan for integrating data from the EMIS and the old data collection system, so that schools do not need to do both types of reporting. The old data collection system should feed into the EMIS, or vice versa, EMIS data should feed into the old data collection system. This way, schools only have to do one or the other, not at the same time.
- **Lack of consideration of the new roles and responsibilities especially for regional education departments**: Introducing the EMIS will have many repercussions on staffing and staff roles and responsibilities. This may of course lead to some resistance, especially if the changes are for the worse (e.g., additional workload, additional complexity, change from routines, even lay-offs). The changes in roles and responsibilities and general staffing due to the introduction of the EMIS needs to be considered, so that staff (e.g., education department employees) can be advised in advance of the upcoming changes to their work. This is also an opportunity to involve them and get their inputs into the EMIS as future users, as discussed above. The transition will go more smoothly and will have more buy-in with staff if they are consulted and involved in this process.
- **Lack of incentives at school-level to use the EMIS and report data:** Another key bottleneck is that schools have no incentive to enter data into the EMIS. It may become a legislative requirement, which is one way to ensure schools enter the data. However, more important is that schools have incentives to enter all their data into the system. The EMIS needs to offer useful functionality which helps with school administration, planning, management, monitoring of students, automated report generation, and so on. In addition, information needs to flow both ways. Schools need to be able to see the results of the data they submit, such as be able to see how they compare to other schools in terms of enrolment, characteristics of their students, school funding, examination results, and so on. It is important for schools to have this information. If the EMIS lacks useful functionality and does not provide useful information, schools are less likely to enter data, or will enter data partially and less accurately.

In 2018, UNICEF supported MOPSE in piloting OpenEMIS, an open platform for collecting education data on various parameters. UNICEF also provided technical support to MOPSE in articulating relevant outcome and output indicators, defining, and establishing the formulas for estimating the indicators, the questionnaire for collecting data, guidelines for collecting and collating data, capacity building at different

levels on how to use EMIS etc. The introduction of EMIS based on OpenEMIS platform allowed MOPSE collecting basic quantitative data on children, teachers, infrastructure, etc. in dynamics and disaggregated by regions and districts of the Republic. In addition, the system was integrated with the Ministry of Justice and the Ministry of Finance, as well as with Tashkent city *khokimiyat*, and was used to monitor online payments and "electronic queuing" of applications for preschool admissions. At the same time, the experience of the operationalization of the OpenEMIS platform during the period 2018-2021 revealed several technical inadequacies in the platform, which constrained MOPSE's efforts in collecting the information and analyzing the same for Ministry's own evidence-based decision making. In particular:

- The OpenEMIS platform's monolithic architecture limited the system from adding new indicators as well as the creation of additional functionalities (for example, adding filters for different indicators, analytics capabilities etc.). The disadvantage of this architecture is that if one part of the system or module fails, then the whole system stops functioning.
- The OpenEMIS platform was designed originally to monitor the school-based indicators and activities and hence included only a standard set of indicators and reporting forms relevant to school education. These indicators and reporting forms were not meeting the requirements of the Ministry of Preschool Education. Moreover, the System Administrator's actions were limited, he could not select the data for which the report had to be generated, if necessary. They had to manually correct the exported reports.
- OpenEMIS has quantitative restrictions on its simultaneous use, which is why there were frequent failures of the platform when the number of users exceeded 10,000. Given the fact that the system was integrated with the databases of other Ministries and departments, such failures occurred often. MOPSE also felt that the system lacked the function of saving daily data, which limits the ability to monitor students' attendance.
- Given the limited number of specialists in Uzbekistan with the expertise and experience of the software framework that the OpenEMIS is based on, the maintenance and updating of the platform require buying services from elsewhere, which is more expensive than platforms developed based on other modern frameworks.
- According to the user feedback, the platform is not very user-friendly, resulting in difficulties for ECE staff when entering data and training new employees to use the platform.
- According to PP-5144 "On additional measures to expand the network of pre-school educational organizations in areas with low coverage", it is envisaged to ensure monitoring of a number of new indicators and ensure integration with systems of other ministries within the framework of Preschool EMIS starting from June 10, 2021. The implementation of these tasks within the OpenEMIS platform turned out to be unrealistic, due to the fact that OpenEMIS is not designed to process large-scale data and the existing workload.

Hence, MOPSE requested UNICEF for further support. In 2021, UNICEF initiated technical support to MOPSE for EMIS by reviewing the design, developing, and testing of pilot version of the "Bolalar Bogchasi", the preschool EMIS system. The pilot of new preschool EMIS is planned to be conducted in February 2022. The major changes introduced as part of the new system are the following:

- The data collected during 2018–2021 were to be transferred to the new system. The first phase of the platform development will continue to collect data on the indicators that have already been collected and added additional indicators on attendance and child development. Additional data will be added in the second phase of the project.

- In addition to filtering data by region, there will be added the function to enable filtering data on other grounds, such as gender, age, the state of the building, i.e., whether it was repaired during the last 5 years or not, etc.
- The new system includes a functionality of cross-analytics. For example, it will be possible to see: the number of ECE centers in Kashkadarya region that have not been repaired in the last 5 years, how many children there are by gender and how many educators.
- The new system will use a micro service architecture, which in case of failure of one of the modules will not allow the whole system to fail. This type of architecture is flexible and easier to use and will allow new functionality to be added.
- The ability to generate flexible types of reporting and analytical data will be added and a user-friendly and understandable interface will be developed for users of all levels. It will be possible to track and save the data on visits and actions of each user of the system in real time.

Education Quality Assurance Framework (EQAF):

Education quality assurance involves the systematic review of educational programmes and processes to maintain and improve their quality, equity, and efficiency. While the design of quality assurance mechanisms (tools, processes, and actors) varies across national contexts, their common objective is to improve teaching and learning – with the goal to support the best outcomes for learners. Quality assurance is important for accountability as well as to support ongoing development of schools and of teaching and learning. Well-functioning systems have mechanisms to support and balance vertical and horizontal, internal, and external accountability. Quality assurance that is focused on development supports schools to adapt to the changing needs of learners[32].

In 2019, UNICEF provided technical support to GOU (through MOPSE as well as State Inspectorate for the Supervision of Education Quality [SISEQ]) to design the first **Education Quality Assurance Framework** (EQAF) including quality standards and performance indicators for the preschool and general secondary education. The new framework envisages to provide a reliable, evidence-based and coordinated approach to measuring education quality and is designed to achieve the overall goals and objectives of education policy[33].

In 2020 EQAF was approved by joint Decree #3214 from 27.01.2020 (State Inspectorate for the Supervision of Education Quality (SISEQ), Ministry of Public Education and Ministry of Preschool Education). EQAF is now being implemented within the process of attestation and accreditation of preschools and general secondary schools for conducting schools and preschools self-evaluation and external quality review to be implemented by designated inspectors/supervisors. UNICEF also provided

[32] European Commission (2018): "Quality Assurance for School Development"; Guiding principles for policy development on quality assurance in school education.

[33] *Under the World Bank – GPE funded project "*Promoting Early Childhood Development Project (P165737, 2019-2024), it was envisaged that the project would finance *technical assistance to develop and implement a system for measuring the quality of preschool education in Uzbekistan.* The project is currently financing the *adaptation and pilot-testing of two quality measurement instruments: Measure of Early Learning Environments (MELE) and the MODEL*. The former measures the quality of early learning center-based services, while the latter measures children development outcomes. Both instruments were developed by experts and partners from across the world as part of the initiative on Measuring Early Learning Quality and Outcomes (MELQO), an international consortium including the World Bank, UNICEF, UNESCO, and the Center for Universal Education at the Brookings Institution. However, the work is still under progress, while EQAF is already adapted by the government.

technical support to design **data collection tools and methodological manuals** for conducting accreditation of preschool and general secondary schools based on the EQAF.

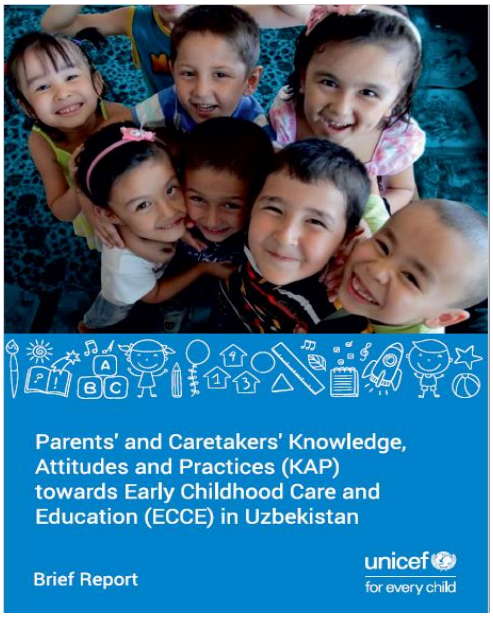
To enhance monitoring system for EQA and make school performance data more transparent, UNICEF provided support to SISEQ to develop **an electronic, web-based platform for QA data collection and management** ONAKS (http://onaks.tdi.uz) and an online accreditation register (http://reestr.tdi.uz). The system was launched and are being used in all regions of the Republic of Uzbekistan.

While the new system was introduced its further enhancement will require analysis of how it is being implemented, what are the challenges at preschool/school, district, region, national levels, identification of gaps and limitation. There is also great demand in enhancing capacity of different level specialists to analyze collected data to inform practices.

Research and Evaluation in preschool education sector in the country

The Education Sector Situation Analysis by UNICEF (2018, included in the ESP 2019-2023) as well as the Education Sector Analysis (World Bank, 2019) touched upon the preschool scenario prevalent till 2018. However, to address several supply and demand side issues, it was important to conduct specific studies in preschool education.

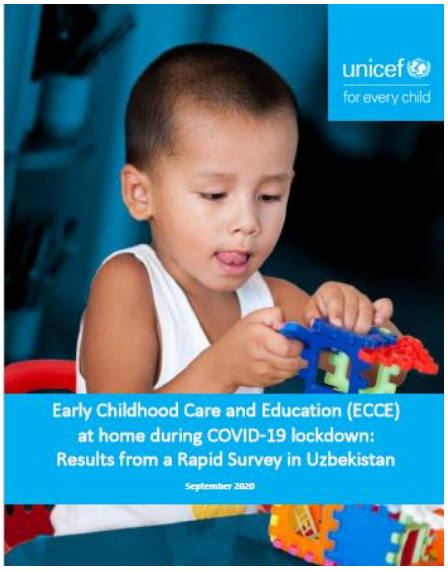
UNICEF conducted two targeted studies in preschool education sector: first, a study to understand the Knowledge, Attitude and Practices (KAP) of parents towards ECE /ECD, including parenting behavior[34]. This was a nation-wide study covering over 2000 households with children in the age group of 3-6 years. The study highlighted that availability, accessibility, affordability and cultural factors still matter in parents' decisions regarding sending a child to preschool. Parents also demonstrated limited understanding of the child development milestones or standards related to physical, psycho-social, emotional and cognitive development. The study also provided the first-ever analysis of "school readiness of children" in terms of pre-math/number concepts, cognitive and conceptual areas and pre-literacy and language areas in the country. Children who attended preschool programmes were better prepared in terms of "school readiness" parameters compared to children who had not attended any preschool programmes. While mothers and grandparents are greatly involved in childcare and nurturing at home, fathers' involvement with children were very limited.



UNICEF Uzbekistan (2020) Rapid Assessment on the "ECCE at home during COVID19 lockdown" provides insight into young children were taken care of during the pandemic at home. The study used a sub-sample of the households surveyed for the study on Parents / Caretakers' KAP towards ECCE; hence provide an assessment of the behaviour change during COVID19 lockdown. The study looked at childcare and protection, early learning and engagement (including engagement using digital platforms and other entertainment media such as television, as well as health and hygiene issues during the lockdown period in 2020. The study also covered parental expectations regarding safe preschool re-opening and building

[34] UNICEF Uzbekistan (2020) "Parents' and Caretakers' Knowledge, Attitudes and Practices (KAP) towards ECCE"

back better the ECCE experiences for children. The study found that overall, parents and family members spent more time with young children (3-6 years) during the COVID19 lockdown. Parents were able to carry out some ECCE activities at home: sports and games, reading with children, arts and crafts or entertainment programmes. However, while the engagement of an older sibling with the younger child increased (as the schools were closed), during the lockdown, fathers' engagement in parenting remained low. Parents had trained children in health and hygiene practices to be followed in daily life, and particularly due to the COVID-19 pandemic. While most children were watching television and entertainment programmes, around 60 percent of the children watched special TV programmes organized by MOPSE based on the preschool curriculum. While a large proportion of children were mostly resilient to the changes in their routine due to the COVID19 pandemic, close to half of the children (48 percent) exhibited some sort of stress on multiple aspects (not able to meet friends, not going out etc.). Parents expected preschools re-open with safe measures and they were keen to ensure that children were able to attend preschools at the earliest.



Summary of Achievements and enabling factors in Preschool Education

System strengthening:

- MOPSE has established new laws and policies to ensure that the activities aimed at enhancing access to quality preschool education is supported by systems level reforms. The new Law on Preschool Education (2019) established the legal base for enhancing access to preschool education equitably for children and establishing the rights of children to one-year preprimary education before entering schools.
- Establishing the modalities for the use of PPP for expanding quality preschool education as well as introducing alternative models of preschool provisions have helped MOPSE to explore multiple pathways for enhancing access, equity, and quality of preschools in the country.
- Adapting several systemic and policy parameters for introducing new curriculum, standards, quality assurance and teacher professional development in preschool education have helped MOPSE to look at preschool education in a comprehensive manner and expanding access without compromising on the quality processes in preschools.
- Establishing and continuously working on improving the EMIS have helped the MOPSE to not only track the outcomes and outputs, but also develop evidence-based policies and programme interventions.
- Government has also mobilized additional resources (such as the World Bank – GPE funding of US $ 73 million; technical support from UNICEF and a US $ 80 million support from Islamic Development Bank to be finalized in 2022).
- The enabling factors also include government commitment at the highest levels, and a proactive team at the MOPSE seeking out new ideas and resources.

Access and enrollments

- MOPSE has managed to enhance access to preschool education by constructing new preschools, repairing of existing preschools, collaborating with private sector using PPP modalities, and

establishing alternative models (number of preschools increased from less than 6000 in 2017 to over 20,000 now).

- MOPSE has succeeded in increasing the number of 3-6-year-old children attending preschools (730,000 in 2017 to 1.7 million now), particularly increasing the participation rates among 6-year-old children before they enter grade 1 (enrolment rates of 6-year-old children increased from 44 percent in 2017 to 77 percent in 2021 and 82 percent in 2022).

Curriculum and capacity

- MOPSE has put in place systems and mechanisms to improve the quality of preschool curriculum and pedagogy by developing new preschool curriculum, revising the ELDS and ensuring that all preschools have access to the new curriculum and materials,
- Establishing distance and online ECE programmes for children, and
- Developing in-service training programmes for improving the capacity of preschool teachers and training more than 38000 teachers on various aspects of new curriculum and ELDS.

Challenges in Preschool Education

Access and enrollments

- Though the Government has managed to increase access and enrolled close to 1.6 million children till now, there are still 1 million more children (3-6 years old) in the system to be enrolled in the coming years. The challenges in access to preschool education – geographical, financial, and socio-cultural – remain problematic in many remote communities in Uzbekistan.
- Equity issues persist in the current enrolments in preschool education – boys outnumber girls, urban children outnumber rural children and children from well-to-do backgrounds have better chances of attending preschools compared to others.
- The Government's decision to enroll children above two years[35] into preschools are expected to put additional burden on the systems.

Quality of preschool education provision

- The biggest challenge to quality preschool education in the country is related to preschool teachers. As preschool education expands, the system needs to recruit new teachers. At present, more than two-thirds of the teachers do not possess higher education qualifications or a reasonable understanding of the new curriculum or ELDS. Training many preschool teachers on various aspects of ECE require tremendous effort and resources.
- The implementation of the revised curriculum and ELDS require creating an enabling environment in preschools. There is a need to ensure that the teaching learning materials (TLMs), and play materials are available in preschools and for children to use on a constant basis. This requires replenishing play materials on a regular basis and innovating new ways of engaging with children.

Systemic Capacity and reforms

- There are enormous capacity gaps not only among the preschool staff and managers, but also at the district, regional and national governments in understanding and implementing various aspects of preschool education. Community's knowledge, attitude and practices (KAP) on various aspects of child care and ECE is also limited.

[35] Uzbekistan allowed to accept children from two years old in kindergartens (kun.uz) President's decree "On measures to further accelerate the work on systemic support for the family and women."

Enablers and Challenges in implementing Preschool Education interventions and activities

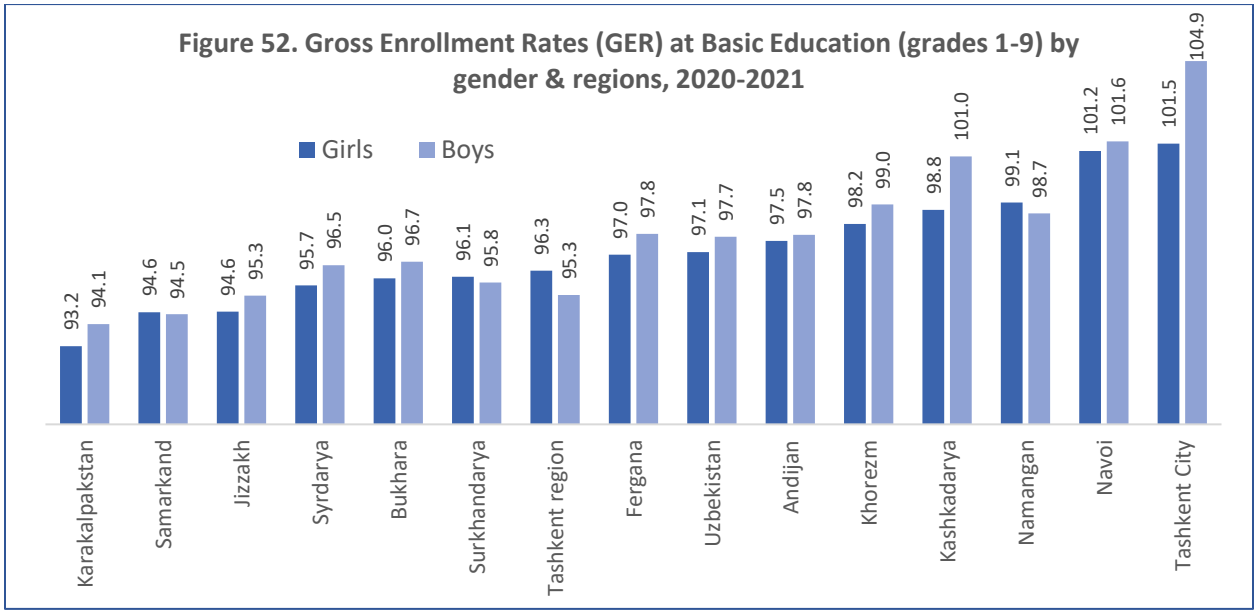
Table 11. Enablers and Challenges in Preschool education		
Area	**Enablers**	**Challenges**
Access	• Having a separate Ministry for preschool education • Government commitment (and having Champions at the highest levels) to achieve the universal preschool enrollment goals • The success in mobilizing private sector resources through PPP models	• Infrastructure and facilities in existing state preschools need major repair/ upgrading • Need to enroll a third of the children out of preschools (close to a million children) • Saturation with PPP models • Remote areas need further attention • Equity issues persist– the pace of increase in enrollments are not similar for diverse groups (for example, girls lag behind boys, children from marginalized families lag behind others, rural versus urban, children with disabilities are not enrolled in general etc.), • Parental Knowledge, Attitude and Practices (KAP) related to preschool education is not conducive
Quality and relevance	• Consistent efforts to improve ELDS and curriculum. • Support from UNICEF for improving the content and quality of curriculum & pedagogy, • Use of alternative models • Development of training programmes for preschool teachers • Drafting of teacher professional standards and assessment mechanisms	• Limited capacity of preschool teachers (teacher qualifications) • Limited in-service training programmes for teachers; • Inadequate teacher preparation programmes • Some preschools do not have adequate teaching learning and play materials to support the implementation of programmes
Systems	• Government commitment (and having Champions at the highest levels) to achieve the universal preschool enrollment goals • Having established an EMIS, Education Quality Assurance framework etc.	• Need to build capacity of preschool administration, particularly those in the regional and district departments, preschool managers • Challenges of translating the system level reforms to grassroot realities • The quality implementation of EMIS, EQAF etc. require capacity at preschool levels

CHAPTER 4. SCHOOL EDUCATION (PRIMARY AND SECONDARY EDUCATION)

Introduction

Article 41 of the Uzbekistan's Constitution, adopted in 1992 guarantees "right to education" for all, emphasizing that "everyone shall have the right to education. The state shall guarantee free secondary education. Schooling shall be under state supervision". Article 41 provided the basis for the former Law on Education (1997) and the new Law on Education (2020). Based on this, General secondary education in the country has been free (implying no tuition fees) and compulsory in the country, and this has resulted in a near-universal enrollments in the sub-sector.

In 2021, as per the statistics available from State Statistical Committee, GOU, the gross enrollment rates (GER) in general secondary education (grades 1-9) have remained 97 percent for the past several years. In primary education (grades 1-4) the enrollment rates were estimated at 99 percent and for secondary education (grades 5-9), it was 94 percent in 2021. At primary education level, the gender parity index (GPI) is 0.94. There are also regional variations in the basic education GERs. In 2016-17, the regional variations in basic school education GERs ranged from 108-111 percent in Tashkent city to only 86 percent in Karakalpakstan. In 2020-2021, the regional variations remain the same, with the GER in Tashkent city adjusting to 103 percent overall to 93 percent in Karakalpakstan.

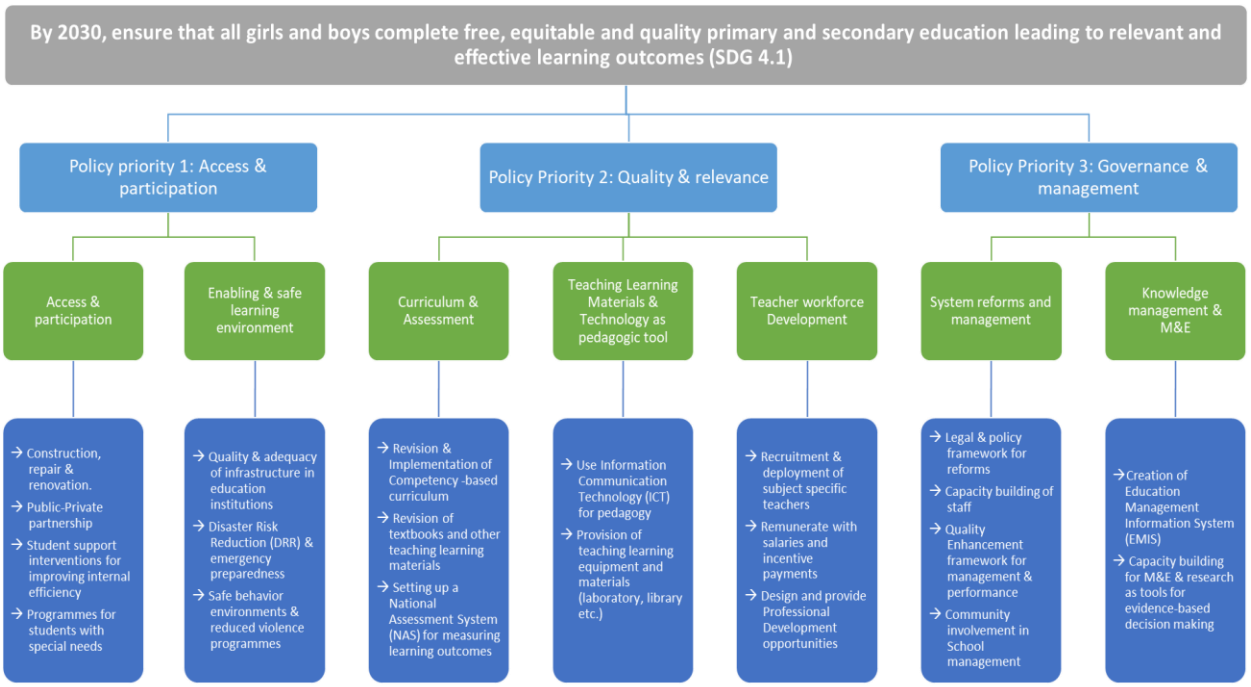


Despite the strides that Uzbekistan achieved in ensuring near-universal enrollments in schools, there are still the "last-mile" challenges in terms of a sizeable number of children out-of-school, who perhaps had dropped out of school or never got enrolled, there are also issues related to equity, particularly, the education of children with disabilities (CWD), and the most pertaining challenge is related to lack of knowledge about quality of education – information about learning outcomes, teaching-learning processes, curriculum and textbooks and quality assurance. It is in this context that the Education Sector Plan 2019-2023 was prepared in 2018.

School Education in ESP 2019-2023

Despite the challenges paused by lack of information on quality education, the Education Sector Plan (ESP) 2019-2023, drawing from available data, anecdotal evidence and based on global knowledge, had envisaged policy priorities and strategic actions for improving access, equity and quality of school education in the country.

Chart 5. Theory of Change for School Education Sector in Uzbekistan under ESP 2019-2023



The ESP 2019-2023 aims to support the country's progress towards achieving SDG 4.2 goals and targets. The policy priorities and strategic actions planned for improving school education are elaborated below.

Policy goal 1: Maintain access and participation in School Education

Enhancing School facilities: With the shift in general secondary education system from 9 years to 11 years during the 2018-2019 period, 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. The ESP 2019-2023 proposed to take up the following activities to enhance school facilities to support children attending schools: (a) mapping of school infrastructure conditions and requirements for new building, reconstruction and renovations; (b) 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 adopt 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 (for details, see ESP 2019-2023, pages 101, 103 and 127).

Strategic Area 2: Safe and enabling learning environments: Taking cognizance of the issues related to school safety and school-based violence, The ESP aimed to make 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. (for details, see ESP 2019-2023, pages 101, 103 and 127).

Policy Goal 2: Quality and Relevance

Curricular Reforms: The ESP, taking into account the gaps in curricular reforms, suggested the following activities: (a) enhancing curriculum of general secondary education using competency-based learning approach, including the development of a new National Curriculum Framework (NCF), (b) developing grade and subject specific curriculum based on the NCF, (c) review of the new curriculum for gender and social sensitivity, endorsement of the NCF and detailed curriculum, and (d) 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. The activities proposed to improve assessments included: (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 details, see ESP 2019-2023, pages 104, 106 and 129-130).

Teaching Learning materials (TLMs) and Technology, including wider use of ICT as a pedagogic tool: Curricular reforms require new approaches to teaching and learning and materials that will support the process. The TLMs in a modern world not only includes textbooks, reference materials or guidebooks, but also digital and ICT tools. 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. The following activities are considered as important for enabling education: (i) equipping all 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 schools to be equipped with IT equipment, ensuring availability of electricity and internet 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 (for details see ESP 2019-2023, pages 104, 106 and 131).

Teacher Capacity and professional development: The quality of an education system cannot exceed the quality of its teachers.[36] 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

[36] McKinsey Report 2008.

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 mechanism to improve the image and status of teachers in society (for details, see ESP 2019-2023, pages 105, 107 and 132).

Policy goal 3: Governance and management

Systemic reforms, governance, and management: The general education sector has seen several large-scale reforms in the past few years. The ESP 2019-2023 envisaged the following actions to support the reforms in school 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 centers, general secondary schools etc.); and (d) promoting parental /community engagement in school based management (SBM) (see ESP 2019-2023, pages 107, 109 and 133 for details).

Monitoring and Evaluation, Knowledge Management: To enable reforms and implement innovative interventions, evidence-based planning and decision-making is essential. MOPE's Education Management System (EMIS) is rudimentary and inadequate to support generating critical evidence for guiding education sector reforms. The ESP 2019-2023 envisages to create a comprehensive EMIS as well as quality assurance mechanisms for MOPE during the implementation period. The activities related to this include capacity building at various levels to collect, analyze, prepare, and use school information. 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 secondary school education. The Ministry is expected to collaborate with research agencies within the country as well as with international development partners, especially UN agencies, to do carry out relevant studies. (for details, refer to ESP 2019-2023, pages 107, 109 and 134).

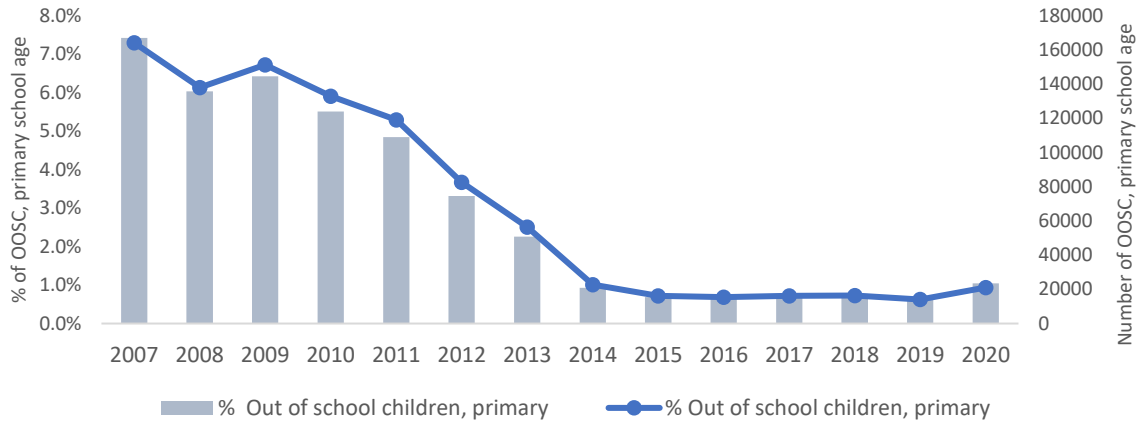
Basic Education Outcomes: 2021

The basic outcomes of school education sector (consisting of primary (grades 1-4), lower secondary (grades 5-9) and secondary specialized (grades 10-11) sub-sectors are discussed here.

Out of school Children (OOSC):

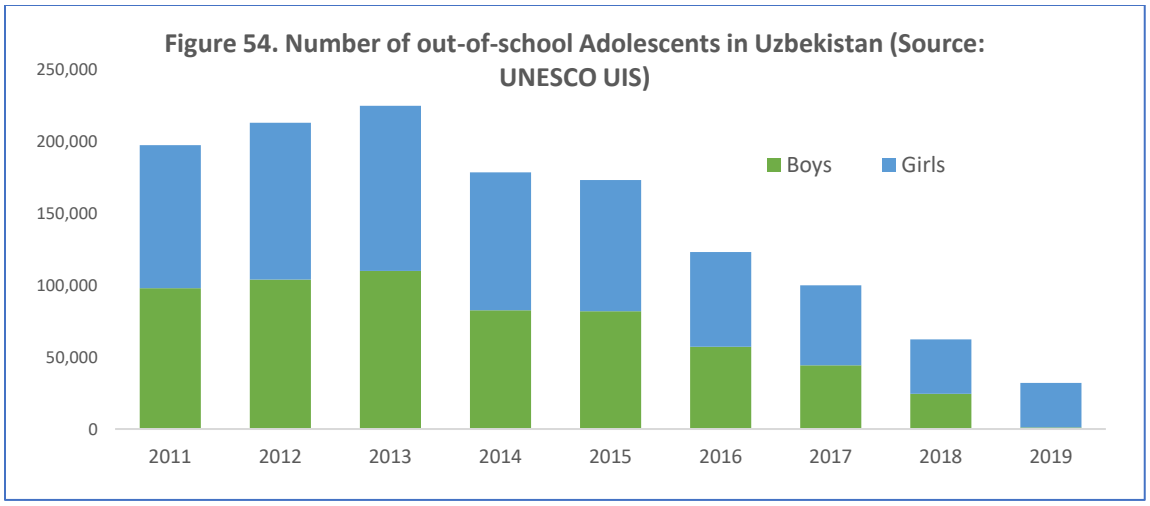
Though the Government of Uzbekistan (GOU) doesn't recognize the indicator of "out-of-school children" and doesn't report officially on the indicator, UNESCO Institute for Statistics (UIS) reports the statistics on OOSC in Uzbekistan[37]. As per the latest data available form UIS, in 2020, there were 23,447 OOSC in the primary school age group in Uzbekistan. These numbers translate into 0.9 percent of the relevant age group (World Bank, World Development Indicators[38]). However, as per the statistics available, there has been tremendous progress in reducing the number and share of OOSC in the primary school age group: the share of OOSC reduced from around 7.3 percent in 2007 to 0.93 percent by 2020; and the number of OOSC has reduced from 166850 in 2007 to around 23000 by 2020. Though the disaggregated data is not available, in 2014 (the latest year for which OOSC data available disaggregated for gender), girls constituted 88 percent of OOSC in the primary school age group.

Figure 53. Children out of school (primary school age)
Source: UNESCO UIS, World Development Indicators (WB)



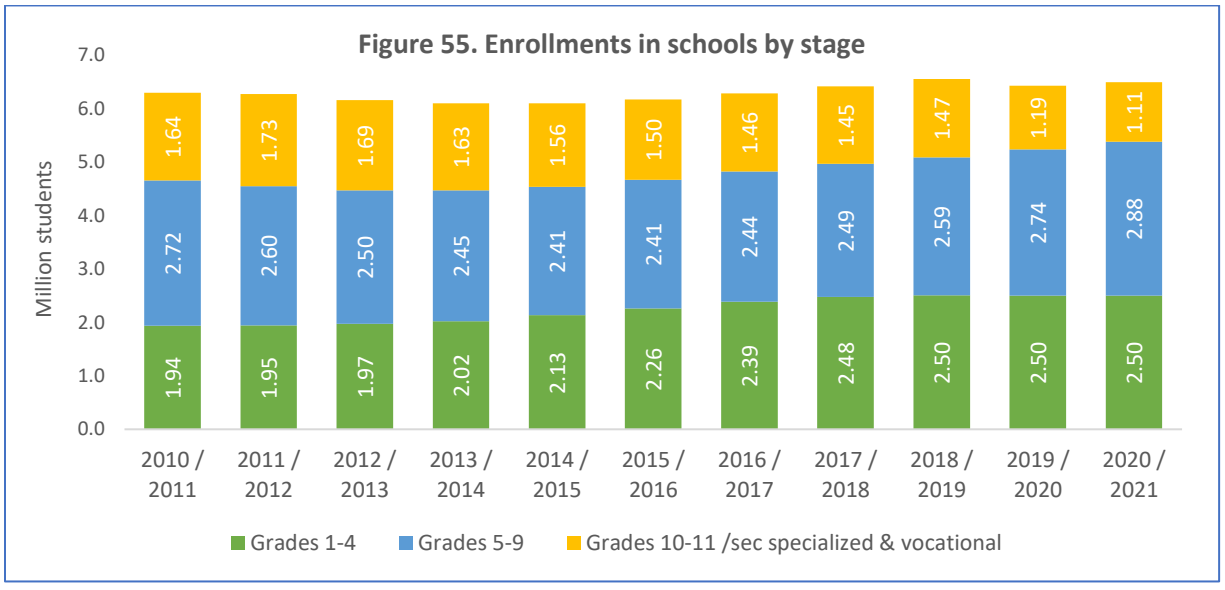
Similarly, among the adolescents in Uzbekistan (13-19 years old, who belong to the secondary stage of education), close to 32,000 OOSC in 2019. This is a reduction from close to 200,000 OOSC in 2011. Though overall, there is a reduction in the OOSC among adolescents by more than 80 percent, there are gender disparities: girls in the total OOSC (adolescents) were thirty times more than boys in 2019 or girls constitute more than 97 percent of all out of school adolescents in the country today.

[37] http://uis.unesco.org/en/country/uz
[38] https://data.worldbank.org/indicator/SE.PRM.UNER.ZS?locations=UZ&view=chart



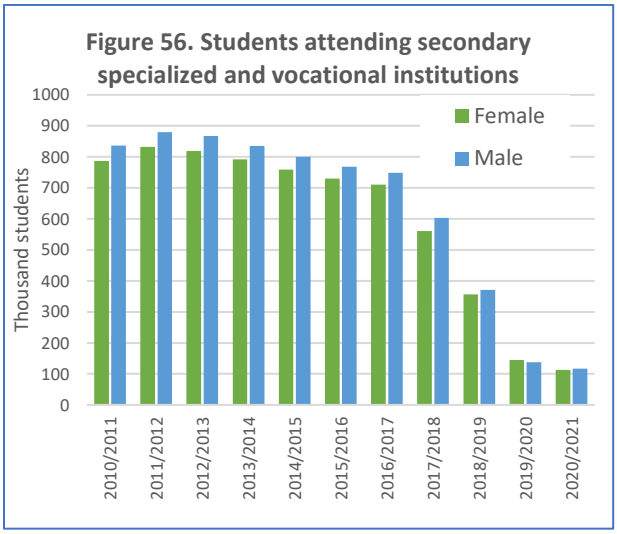
Enrolment in primary and secondary stages of education

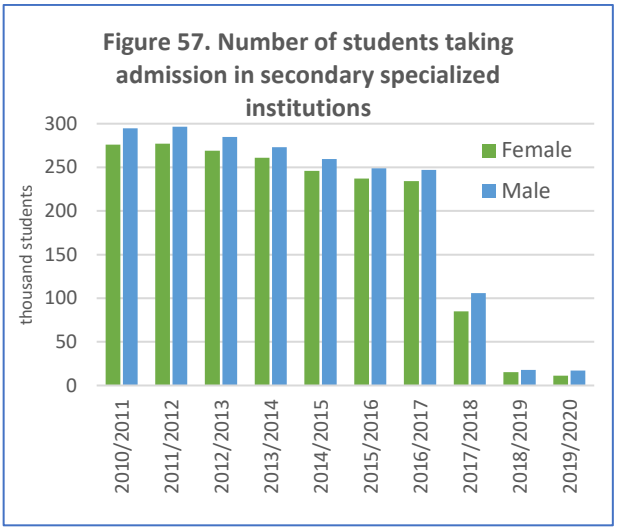
As per the data available from the State Statistical Committee (SSC) of Uzbekistan, the enrollments in basic /general secondary schools in Uzbekistan had risen from 4.7 million in 2010-2011 to 6.28 million in 2020-2021. The SSC data on school enrollments include only those who study in schools (exclude those who attend senior secondary education in secondary specialized and vocational institutions). Overall, the number of students in primary schools have increased from 1.94 million students in 2010/11 to 2.5 million by 2020/21, and those attending lower secondary education (grades 5-9) have also increased from 2.72 million in 2010/11 to 2.8 million by 2020/21.



A complication in analysing the number of adolescents who are enrolled (or complete) senior secondary stage of education (known in the country as secondary specialized and vocational education or professional education) in the country is related to the diversity in the education courses both in terms of type as well as number of years required, and the changes in recent years. This stage was a compulsory continuation of General Secondary Education of 9 years till 2019, lasted 3 years and was conducted in either Academic Lyceums or Vocational Colleges. However, in 2019, the school years were extended by two more years (grades 10-11), and students were given an option to either study in academic lyceums,

vocational colleges or in schools. The overall number of students attending grades 10-11 / secondary specialized and vocational education /academic lyceums have declined from 1.6 million in 2010/11 or 1.7 million in 2011/12 to 1.1 million by 2020/21. This reduction in the number of children enrolled could be mainly attributed to the change in the structure of senior secondary specialized and vocational education – earlier, secondary specialized and vocational education consisted of three years whereas now the predominant form of grades 10-11 consists of only two years. The number of secondary specialized and vocational educational institutions have declined from more than 1500 institutions prior to 2018 to only 818 by 2021 and the intake / admission into secondary specialized and vocational institutions have declined from 560 thousand in 2010/11 to 28 thousand students – a decline by 20 times during the period.





Though the overall GER in basic education has remained around 97 percent for the country, there are regional and gender variations. Among the regions, the GER in Tashkent city exceeded 100 percent, highlighting the overage and underage enrollments in the capital region whereas the GER were lower than 95 percent in Jizzakh, Samarkhand and Karakalpakstan. Girls' GER has remained mostly lower than that of boys in all regions except in Tashkent region and Surkhandarya.

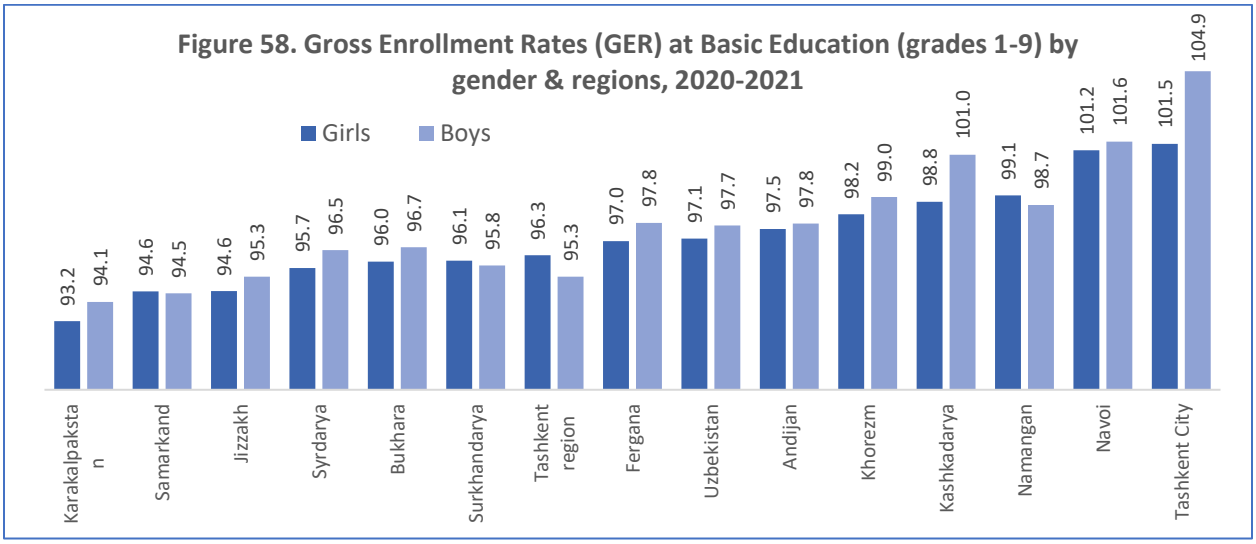
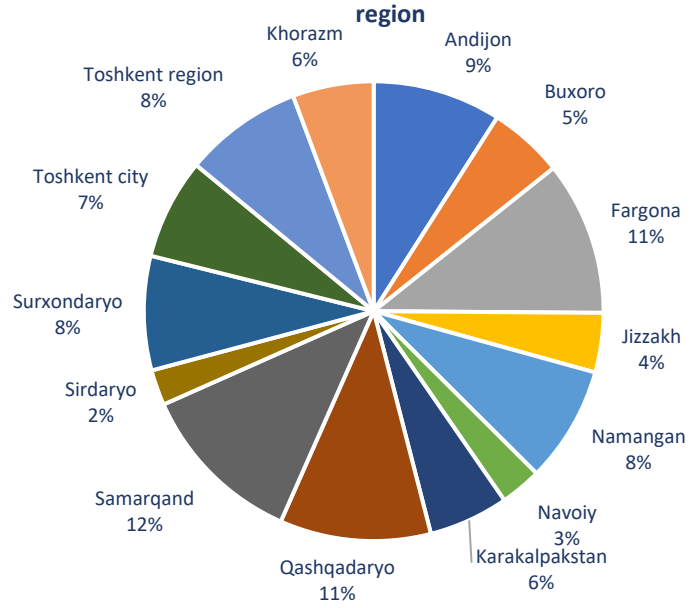


Figure 59. Distribution of student enrollments in general secondary schools by region

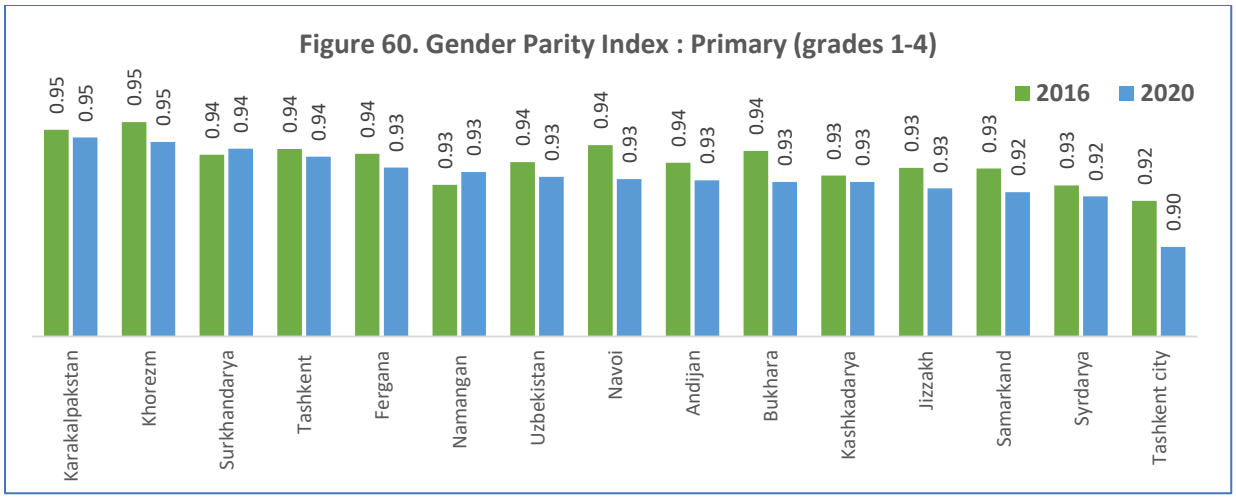


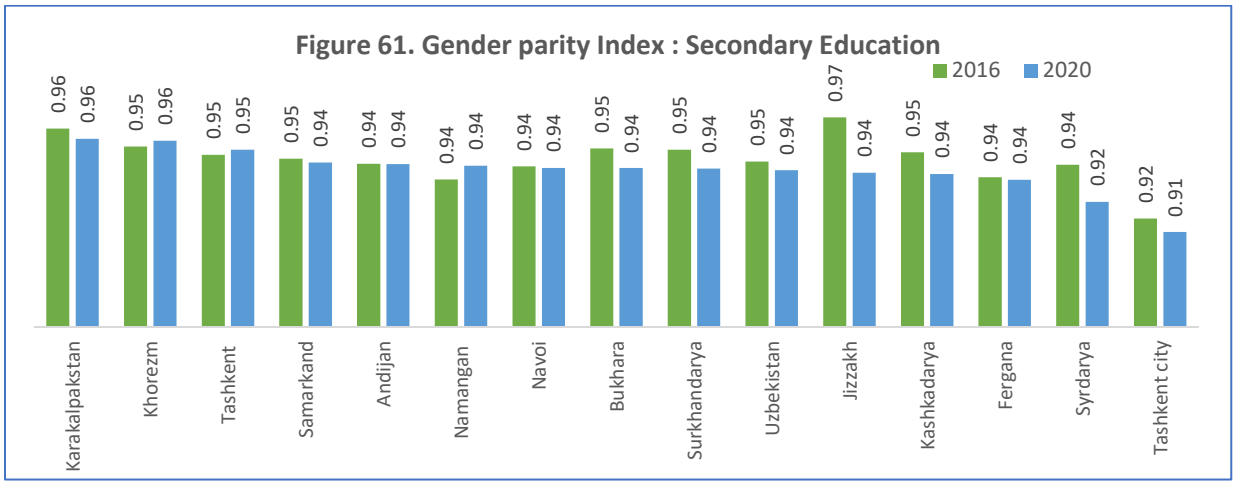
Equity and Internal Efficiency in school Enrollments

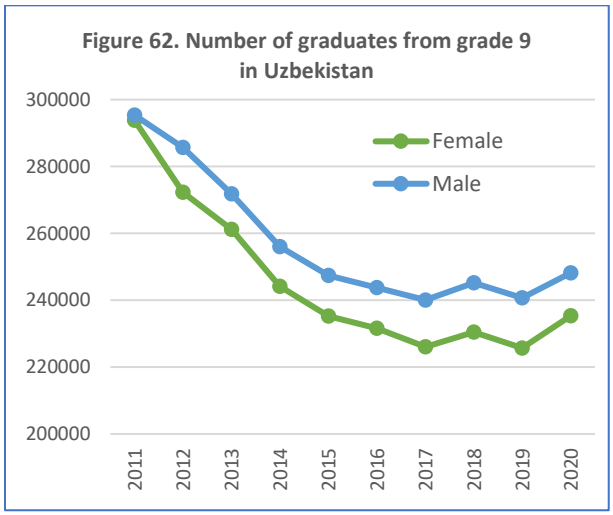
As described earlier, though Uzbekistan has maintained high enrollments for the past several decades, there are several "last-mile" challenges, such as the number of out-of-school children. There are also challenges with respect to equity and efficiency in enrollment patterns. Of the 6.2 million children attending schools (grades 1-11) in the country, 3 million are girls while 3.2 million are boys. Among those who enter the first grade, 52 percent were boys, and the rest 47.9 percent were girls.

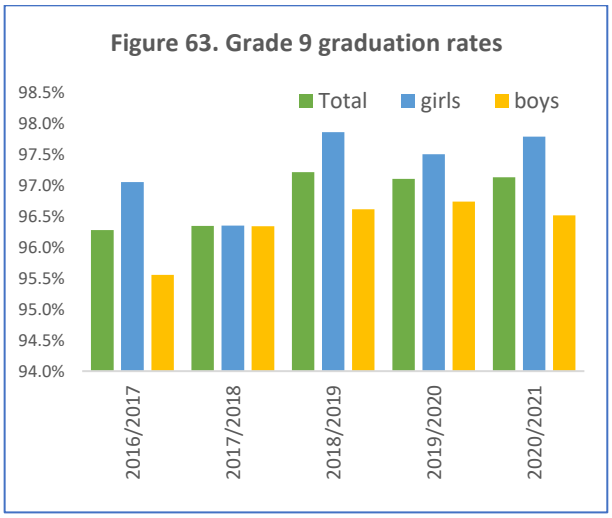
As per the data available from State Statistical Committee (SSC) of GOU, in 2020-2021 academic year, the total number of students in grades 1-4 were 2.5 million, of which 1.2 million (48.2 percent) were girls whereas 1.3 million were boys (51.8 percent). Similarly, the total number of students in grades 5-9 were 2.9 million, of which 1.39 million (48.5 percent) were girls and 1.48 million were boys (51.5 percent)[39]. In terms of Gender Parity Index (GPI), at primary education participation the GPI has remained around 0.94 or 0.93 for the past several years. The GPI at primary varied from 0.95 in Karakalpakstan to 0.90 in Tashkent city in 2020. The GPI at lower secondary levels (grades 5-9) also has remained around 0.95, with variations across regions.

[39] https://stat.uz/en/press-center/news-of-committee/13585-umumta-lim-muassasalari-5-9-sinf-o-quvchilarining-jinsi-bo-yicha-taqsimlanishi-3









One of the challenges in assessing the school /education stage completion rates in Uzbekistan are the following: (i) the MOPE or the State Statistical Committee of GOU doesn't estimate graduation rates scientifically; and (ii) data for estimating stage wise completion rates are not available for public. What is available is the data on the actual number of graduates (students who complete grade 9). The analysis of

data available from State Statistical Committee website shows that the overall number of children graduating from grade 9 has been declining over the last ten years, and more importantly, the gap in numbers between boys and girls have been on the rise. However, when juxtaposed against the number of children in the cohort who were enrolled in grade 1 nine years prior to the reference year, it is estimated that the grade 9 graduation rate in 2021 were around 97 percent, and 98 percent of girls who were enrolled completed grade 9 compared to only 96 percent among boys.

Learning outcomes

The quality of education in Uzbekistan is one of the least understood aspects mainly due to the lack of a national learnng system that measures the learning levels of children at the end of primary and secondary education in line with international best practices, including standardized tools, items and methodology. While the government carried out tests among children in selected schools, the practice did not provide any meaningful information because: (i) the tools and methodology were not standardized across years or tests or grades; (ii) the data was not analyzed beyond the generation of average scores by regions; (iii) there was no efforts to understand the factors underlining students' learning levels; and (iv) the results were not used to inform any education sector programmes. The World Bank's "Improving Preschool and General Secondary Education Project (with Global Partnership for Education [GPE] grant of US$ 50 million) that were implemented during 2014-2020 envisaged the implementation of student learning assessment as one of the activities, there is no evidence for the study or its results.

In 2018, UNICEF[40], along with MOPE decided to carry out a national assessment study mainly for the following purposes:

- provide a starting point to demonstrate the use of national assessments (and their analysis) to systematically track effective learning and quality improvement and familiarize various stakeholders about the international standard methods and tools for assessing learning among children.
- assess learning levels (both in terms of content knowledge and performance by cognitive domain) among children at the end of primary school and to understand what children in Uzbekistan at the end of primary education know and can do.
- understand the background factors that may influence learning levels, and thus the knowledge gap in that respect; and
- provide recommendations for policymaking to improve the quality of education.

More than 7,000 children in the final year of primary education (Grade 4) were tested as part of this research during April - May 2018. Schools and participating classes were selected through a systematic random sampling process, from across all 14 regions of Uzbekistan to provide a nationally representative sample of 268 mainstream primary schools. The average age of participants was 10 years.

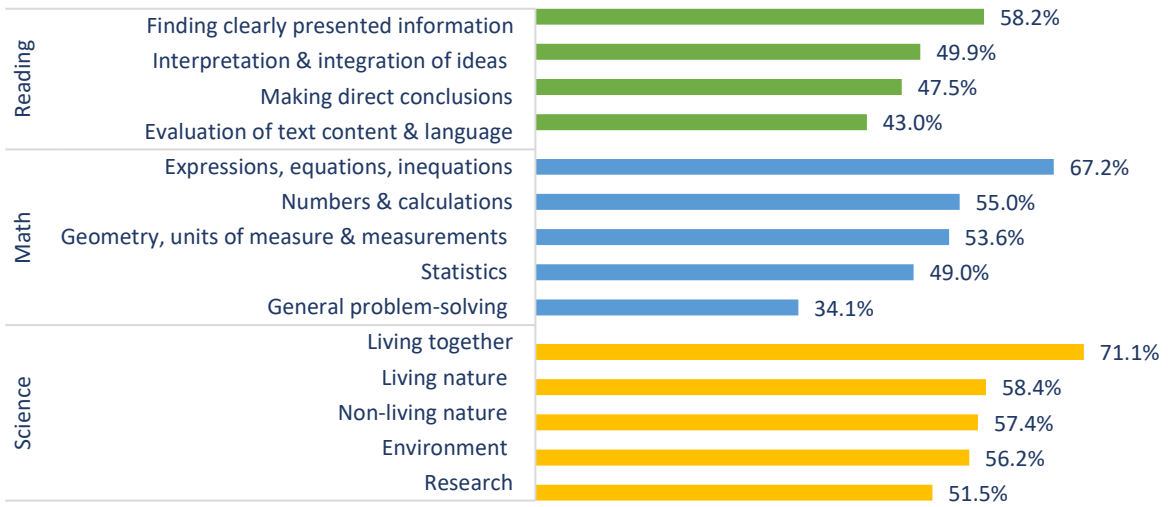
This study was designed based on the quality education conceptual frameworks and international best practices of measuring learning. The assessment tools and frameworks are compatible with similar assessment tools and procedures developed by the International Association for the Evaluation of Educational Achievement (IEA) and the Organization for Economic Co-operation and Development (OECD)

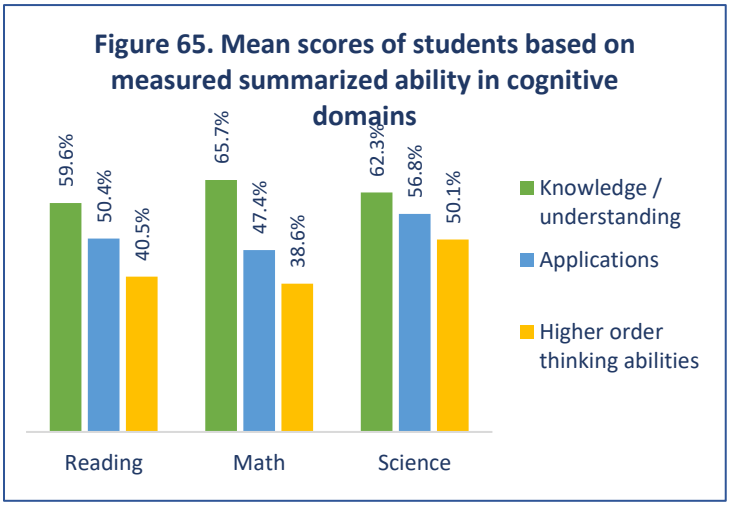
[40] For more information on the study please refer to: UNICEF Uzbekistan (2019): Student Learning at primary grades in Uzbekistan: Outcomes, Challenges, and Opportunities: A summary of Uzbekistan National Learning Achievement Study, Grade IV, 2018; https://www.unicef.org/uzbekistan/en/reports/student-learning-primary-grades-uzbekistan-outcomes-challenges-and-opportunities; see also UNICEF Best of UNICEF Research (BOUR) (2020) What factors are associated with positive primary education outcomes in Uzbekistan? https://www.unicef-irc.org/publications/pdf/6.Uzbekistan.pdf

for their international assessment programmes. Each child was tested in three subjects: language (reading comprehension), mathematics, and general science/environmental studies. Test scores were converted to a standardized scale (with each question weighted to reflect its difficulty) to allow meaningful comparison of students' level of ability on test items of varying degrees of difficulty.

In terms of content areas, within reading, students on an average were able to score 58 percent – meaning on an average 58 percent of the students were able to identify clearly presented information, around half of them could interpret and integrate ideas presented in the test items, 47.5 percent could make direct conclusions and 43 percent were able to evaluate the text content, language and ideas presented. In the case of Mathematics, 67 percent could do math expressions and equations that are appropriate for a primary graduate. Around 55 percent could successfully do simple numbers and calculations such as addition, subtraction, multiplication and division that were given as a direct task, 54 percent were adept in geometry and units of measures and measurements, but only less than half of them succeeded in statistics items and even much less (34 percent) in general problem-solving questions (which involves analysis and higher order thinking). In science, most students did well when it came to general knowledge of living together, living and non-living nature related questions. More than half of the students could also do well in questions that involved some research and analysis.

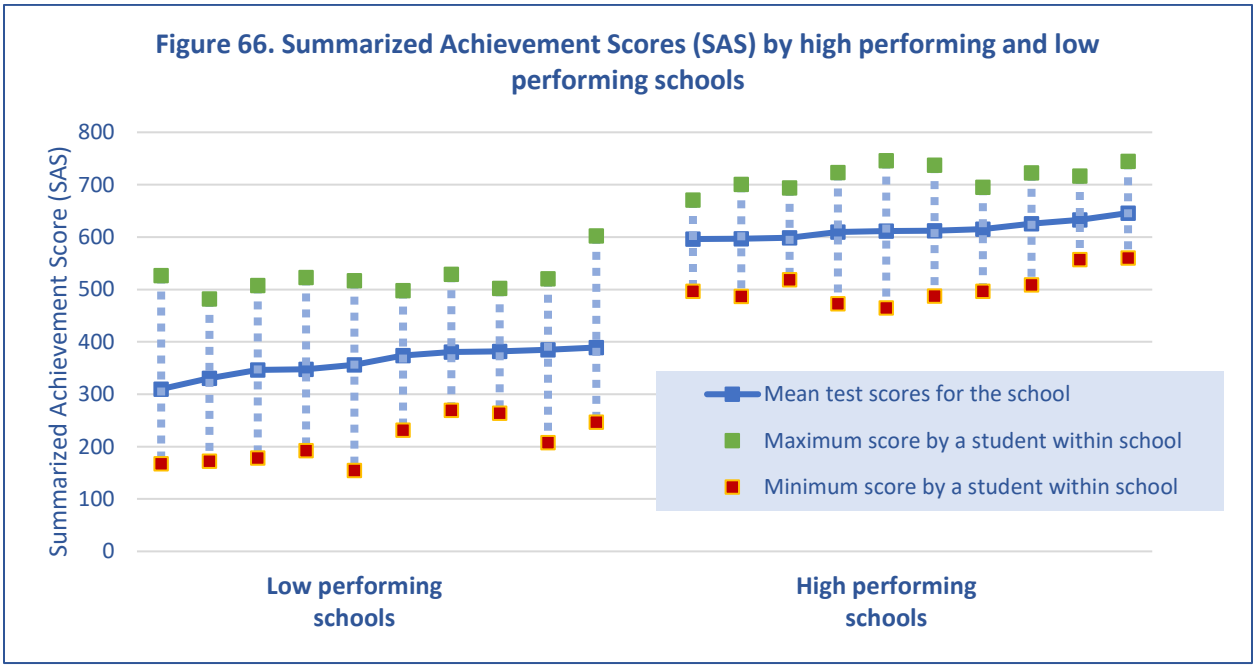
Figure 64. Mean scores of students (%) for Grade IV results by Content areas





Further, the analysis of the learning assessment survey data by cognitive domains (knowledge, applications and higher order thinking abilities) shows that by the end of primary school, students in Uzbekistan were able to identify or recall simple and more obvious information and complete clearly set out, uncomplicated tasks. However, students struggled to identify, interpret, and evaluate more complicated information, solve complex mathematical problems and respond to questions that required reasoning and application. Girls performed better than boys in reading comprehension but similarly in mathematics and science. Children in urban areas performed better than those in rural areas in mathematics and science but not in reading comprehension.

However, the mean scores often camouflage wide variations in students learning and thus the inequalities between students in learning levels. There were also substantial disparities across schools. In every learning area assessed, the best-performing school achieved a mean test score that was more than double that of the worst performing school. The worst-performing students in many of the best-performing schools scored better than the best-performing students in many of the worse-performing schools. The student level variations were much higher in worse-performing schools compared to better-performing schools.



A multi-variate regression analysis of learning levels of students in Uzbekistan shows that both between-school and within-school variations have caused equally to the learning disparities. This means that if certain conditions of the low-performing schools are improved to match that of the best-performing schools, children's learning could be improved to some extent (supply side factors). Similarly, if behavior-

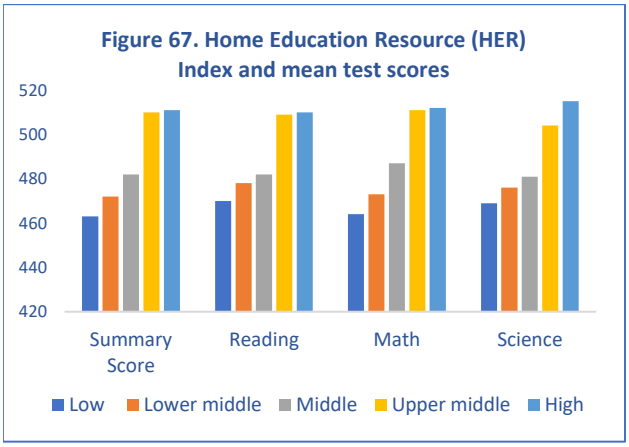
change strategies are employed to improve family support to education through specific efforts or interventions, the performance of students could be enhanced (demand side factors). Some of these factors are discussed below.

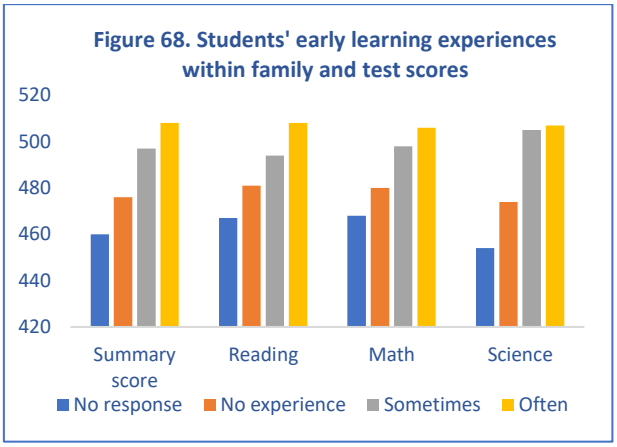
Nurturing Home environments facilitate better learning

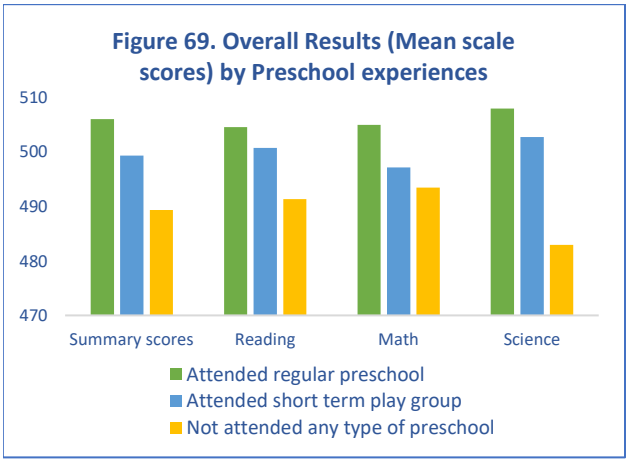
Children who had access to books and were immersed in a culture of reading and learning at home performed better on every test compared with children lacking access to reading materials or had limited resources. Having the physical infrastructure at home to enable study (e.g., a desk) also enhanced learning.

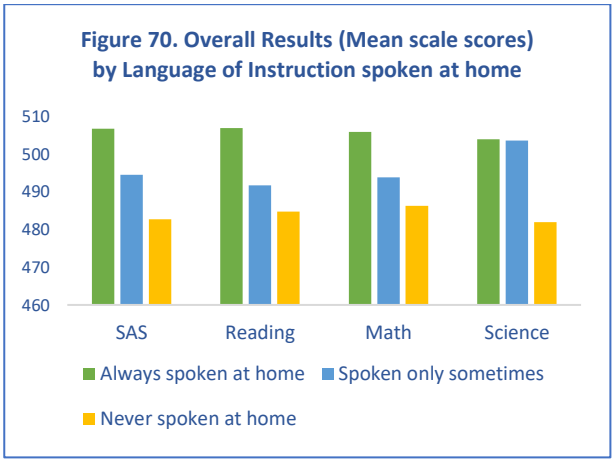
Better test scores were achieved by those students whose families had provided them with early learning and literacy experiences, for example, by reading books, telling stories and singing lullabies to them. Children who felt supported by their family, and who were either rewarded or reprimanded for their school performance, also achieved higher scores. Children who had attended a preschool before starting primary school performed better than those who had not.

Furthermore, those children who were educated in the same language as spoken at home performed much better than children whose school and home languages differed. In tests of reading comprehension, students in Uzbek-speaking schools (where 68 per cent of students spoke Uzbek at home) did much better than those in Russian-speaking schools (where only 42 per cent of students spoke Russian at home).







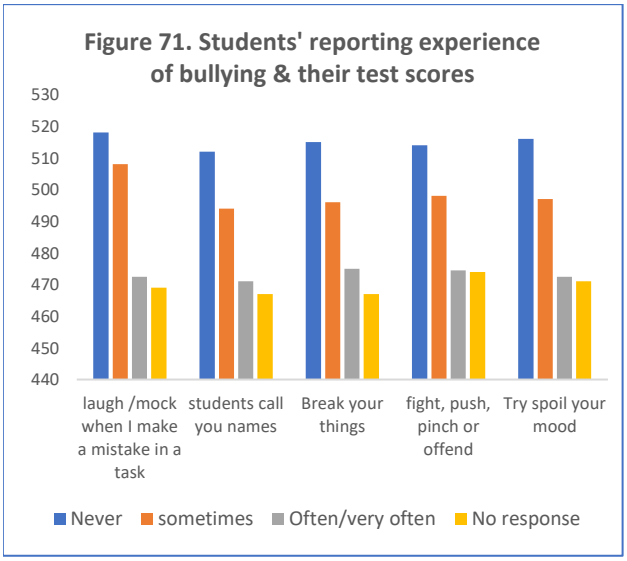


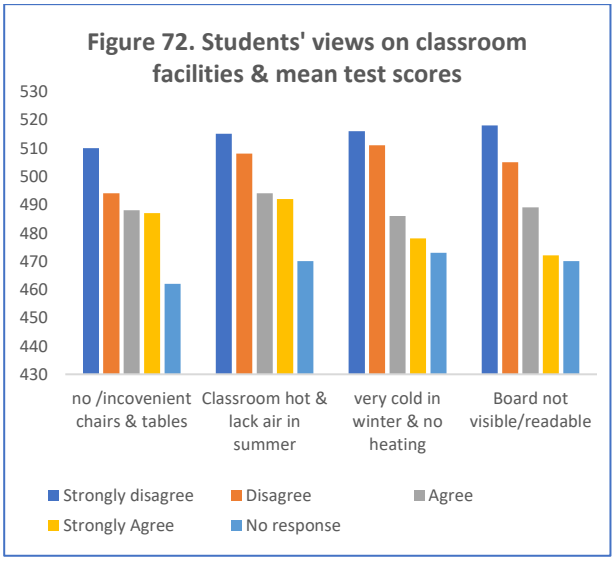
Schools and teachers matter

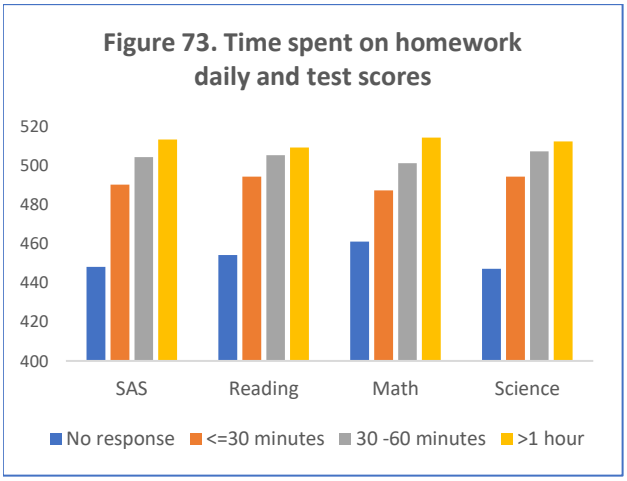
Better learning outcomes were achieved by children who liked their school, felt good about their classes, felt safe in school and had never experienced bullying. In contrast, children attending schools where students displayed a higher level of behavioural problems – such as late arrivals, absenteeism, skipping classes or violations of school rules – tended to perform poorly.

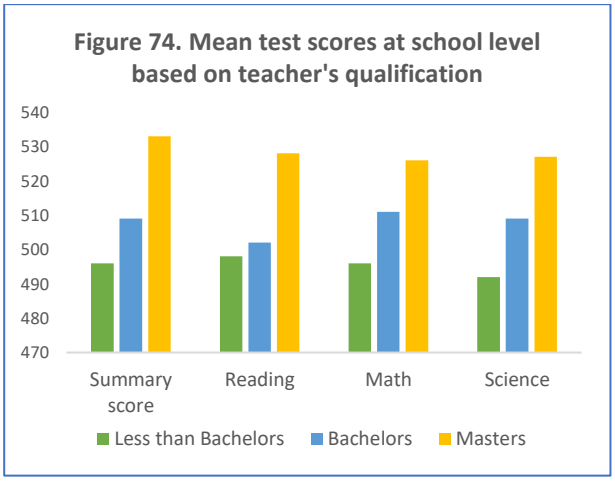
Performance and learning were also influenced by the physical facilities of classrooms, including the ability to adjust room temperature, the suitability of desks and chairs, and the availability of learning and teaching materials. Children who were more physically comfortable in the classroom achieved better test scores.

Children taught by teachers with previous classroom experience and a modern degree (e.g., a bachelor or master's degree) performed better in tests than those taught by a new teacher or a teacher with a Soviet-era higher education diploma or a vocational qualification. Children who were assigned to do more homework by school / teachers performed better than those with less homework.









Progress in implementing ESP 2019-2023

As in the case of preschool education, the ESP 2019-2023 had put forward three policy priorities (access and participation, quality and relevance, governance and management) and 7 strategic areas/ priorities, and a set of activities to achieve the intermediate outcomes related to School education by 2023 (see section 5.2 of ESP 2019-2023, pages 101-110 for details).

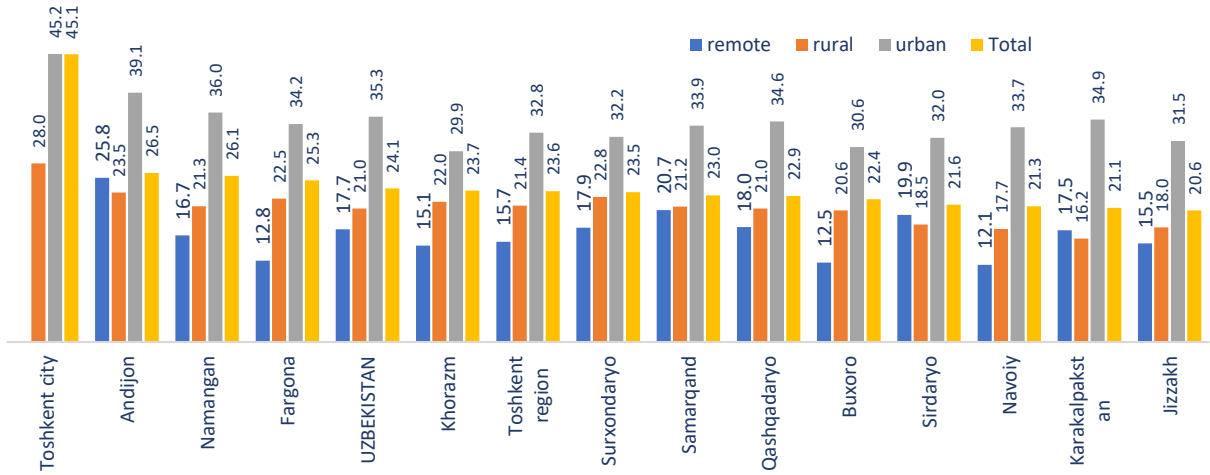
Policy Goal 1: Improve equitable access to and participation in education at all levels

Strategic Area 1. Expand preschool provision and improve physical conditions: There are a total of 10,520 general education institutions in the country, out of which 9718 are general education schools, 22 are special schools, 221 are boarding schools, 225 are Mekhribonlik" houses, Children's Villages "SOS", children's Makhalla institutions; 219 are Children's schools "Barkamol Avlod" and 316 are Children's schools of music and arts.

Since 2018, the Ministry of Public Education (MOPE has built 118 new schools and restored /repaired/ renovated around 3396 schools. Following the new Law on Education (2020) and the Presidential Decree #4860 on the introduction of inclusive education for children with disabilities, efforts to introduce inclusive education in schools are being tried out in 33 schools in the country. In addition, 56 schools are equipped with barrier-free facilities and 60 schools are equipped with ramps for children with physical disabilities.

Strategic Area 2: Safe and enabling learning environments: MOPE reports that all schools in the country have all the required safe and enabling facilities (WASH facilities, electricity etc.). However, an analysis by UNICEF along with MOPE and State Inspectorate for the Supervision of Education Quality (SISEQ) under the Cabinet of Ministers in 2020 shows infrastructure gaps in Uzbekistan schools. A brief description of the findings of the study is given below.

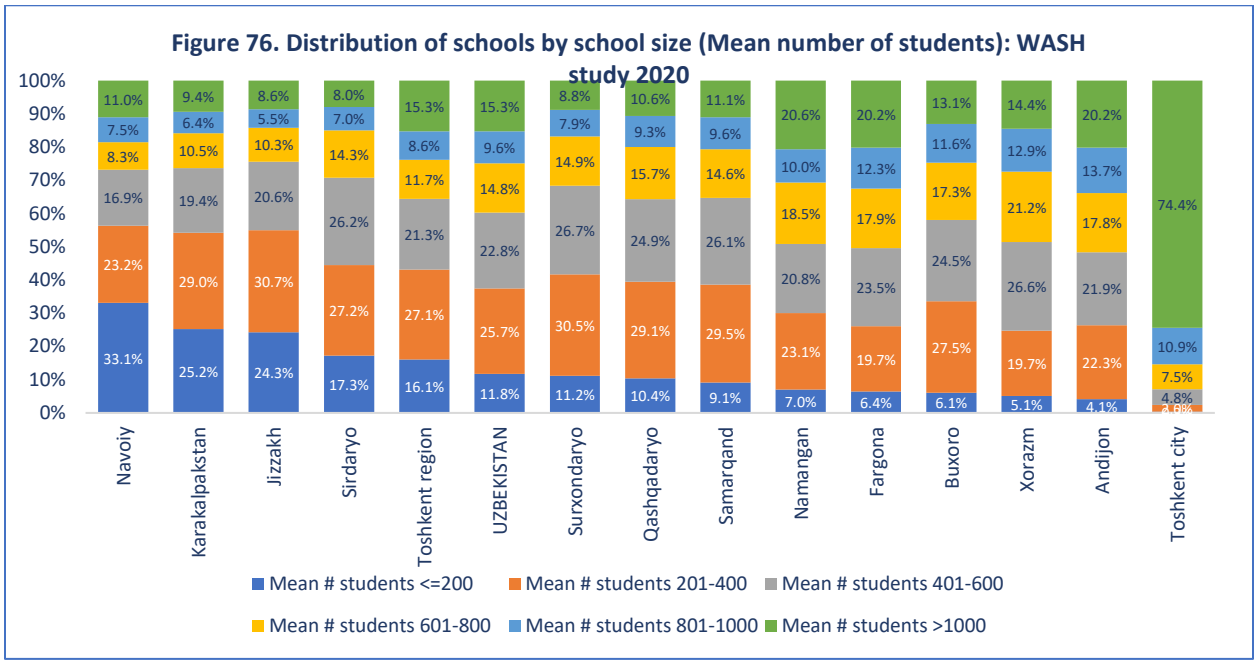
Figure 75. Uzbekistan: Average number of sections per school (WASH study, 2020)



UNICEF – SISEQ (2020) WASH study

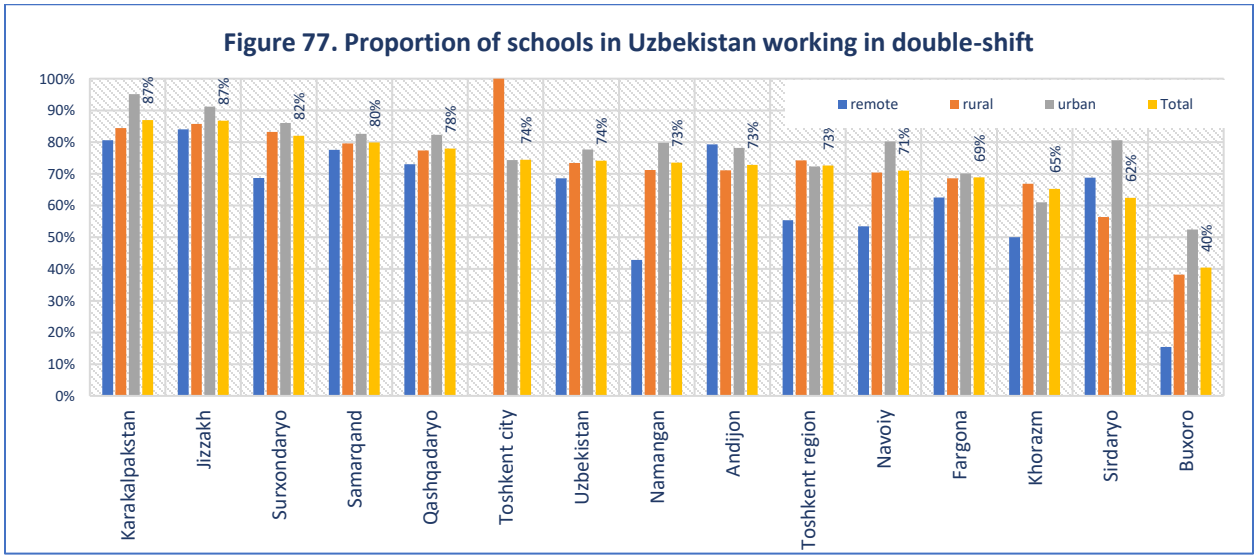
On an average, the schools in Uzbekistan have around 24 grade-sections – this translates to an average 2.2 sections per grade per school. Schools in urban areas have more grade-sections – 35, compared to only 21 in rural areas and 18 in remote area schools. The general secondary schools in Tashkent city on an average have 45 grade-sections – this roughly translates into at least 4 sections per grade in each

school. General secondary schools in Jizzakh, while having one of the large proportions of double-shift schools, have the least number of section-grades.



UNICEF – SISEQ (2020) WASH study

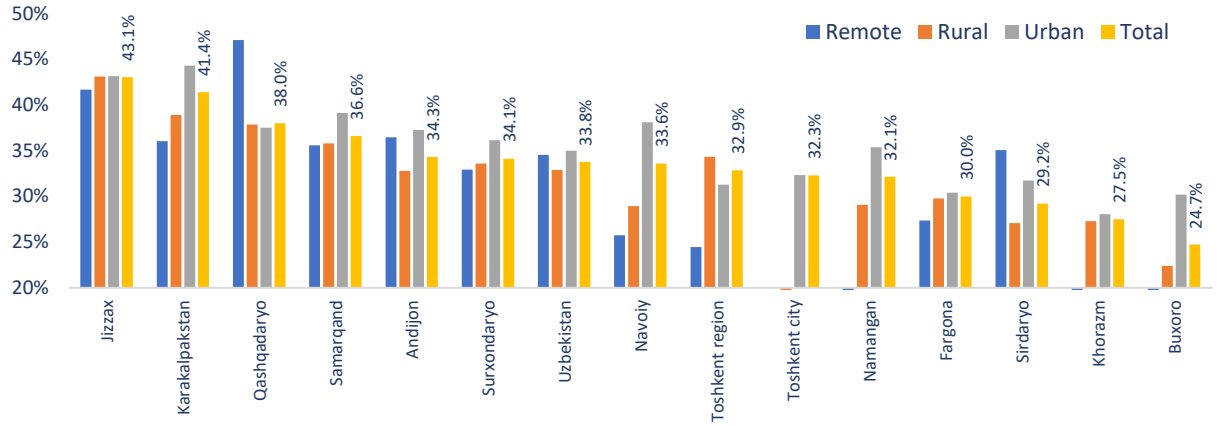
The average school size (number of students per school) in Uzbekistan is around 600+; with around half of the schools have an enrollment of less than 600 students in the year 2020. Around 15 percent of the schools are "large" schools, having more than 1000 students studying in these institutions. More than 3/4ths of the schools in Tashkent city are schools with more than 1000 students. Compared to this, a third of the schools in Navoi and a fourth of the schools in Karakalpakstan are "small" schools – the enrollment in these schools are less than 200.



UNICEF – SISEQ (2020) WASH study

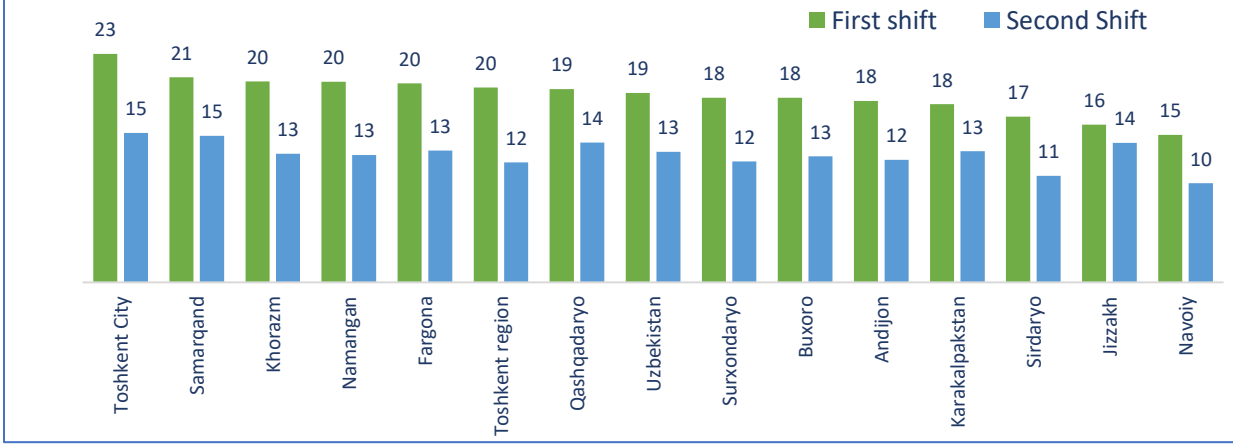
Overall, 74 percent of the schools in Uzbekistan reported that the school operates in double shifts. The proportion of schools with double shifts were highest in Karakalpakstan and Jizzakh and the lowest in Bukhara. The proportion of schools that operate double shifts were high in urban areas (78 percent) compared to rural (73 percent) or remote (69 percent) areas.

Figure 78. % of students attending school in the second shift

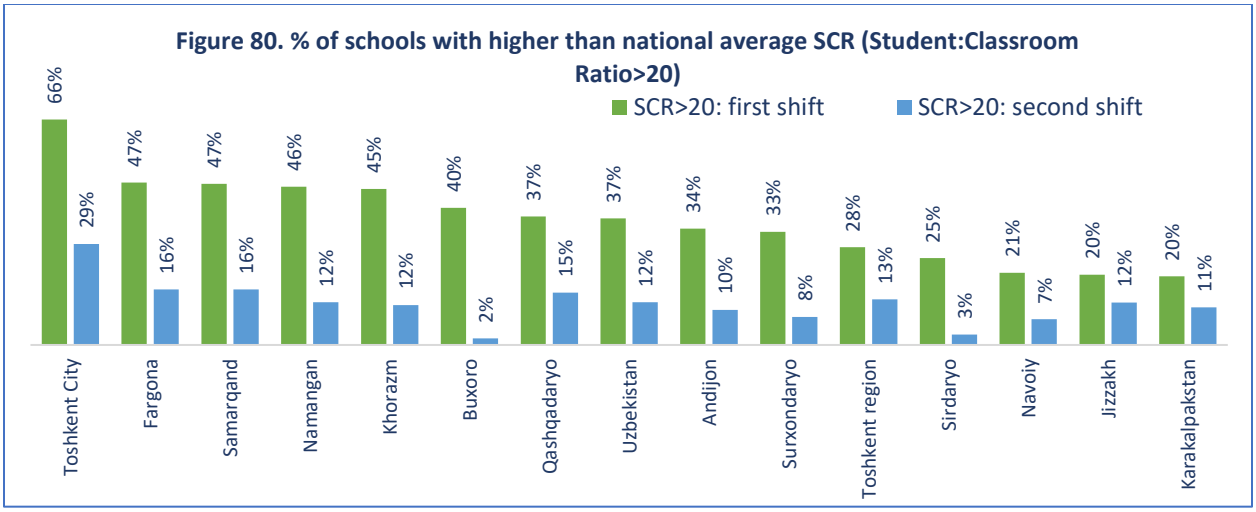


As 26 percent of the schools operate on single shift, those children in single shift schools attend the general shift. On an average, 34 percent of the students in general secondary education attend their classes during the second shift. The highest proportion of students attending the second shift were in Jizzakh (43 percent) while the lowest proportion were in Bukhara (25 percent).

Figure 79. Mean Student: Classroom Ratio (number of students per classrooms)



Given that many schools follow double shifts, the implications for Students per class is that it reduces the burden of class density. On an average, the number of students per classroom in Uzbekistan is 19 during the first shift and only 14 during the second shift Schools in Tashkent city on an average need to accommodate 23 students during the first shift and 15 students during the second shift, in contrast, in Navoi, these are 15 and 10 respectively.



While an average class size of 20 students is somewhat manageable density for social distancing, there are wide variations across schools and regions. Overall, 37 percent of schools in the country have an SCR>20 during the first shift and 12% schools have high SCR for second shift as well. In Tashkent city, 2/3rds of the schools have SCR>20 during the first shift; 29 percent have high SCR of >20 in the second shift as well. In Karakalpakstan and Jizzakh, only a fifth of the schools were having high SC density.

Water, Sanitation and Hygiene (WASH) facilities in schools in Uzbekistan

To prepare safe-school re-opening following the school closures in March 2020 at the beginning of the COVID19 pandemic, UNICEF, along with SISEQ carried out a detailed analysis of WASH facilities in schools in the country. The results are summarized below.

WATER: Easy access to clean drinking water (through pipe) was available only in 47 percent of the schools. Around 58 percent of the students attended these schools where piped water was available. In terms of location, 81 percent of the urban schools had access to piped drinking water compared to only 38 percent of schools in rural areas and 27 percent of schools in remote areas. In Tashkent city, almost all schools have access to piped drinking water, on the other hand in Kashkadarya, less than a tenth of the schools reported having piped drinking water facility.

Water for various purposes was purchased or brought from home by students in around 21 percent of the schools in the country. Around 16 percent of students attended these types of schools. In Kashkadarya and Bukhara, more than half of the schools (61 percent and 58 percent respectively) reported that the students had to use purchased water for drinking purpose. In around 27 percent of the schools, drinking water was drawn from artesian wells. Close to 22 percent of all students attend schools where they use artesian wells for water.

Only 55 percent of the schools reported having regular water supply throughout the working hours. Around 30 percent of the schools suffered due to lack of water throughout the day or most of the school functioning hours. In Tashkent city, drinking water was accessible throughout the day in all schools while in Kashkadarya, only 21 percent of the schools had regular water supply and 68 percent of the schools had “no water” throughout the day.

Only 56 percent of the schools with tap water and 62 percent of the schools with water from other sources had safe water storage facilities and measures at the time of the survey (2020). Around 62 percent of the

schools reported the practice prevalent in the school was to boil water to purify it, while in 17 percent of the schools, water is chlorinated and in 7 of the schools, filtering is used for purifying water for drinking. In Karakalpakstan and Bukhara, 95 percent of the schools had reported boiling of drinking water for purifying whereas in the schools in Tashkent city, only 36 percent reported so. In Tashkent city, 47 percent of the schools reported using chlorination for purification of water. In Khorezm, 43 percent of the schools reported filtering of drinking water, followed by Andijon where 17 percent of the schools reportedly use filtering for purification of water. Overall, it was observed that around 59 percent of all schools were reportedly taking adequate measures to ensure safety of drinking water (safe storage and maintenance) - there is no significant rural- urban differences in the proportion of schools making efforts to store drinking water safely.

Figure 81. Source of drinking water in Uzbekistan schools

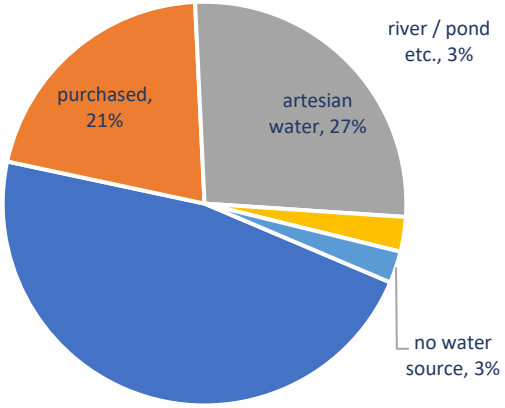


Figure 82. Proportion of students who have access to different sources of drinking water

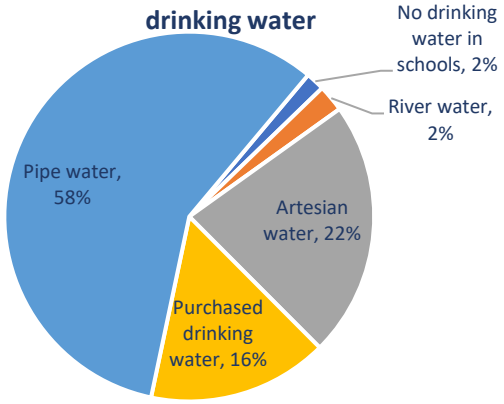
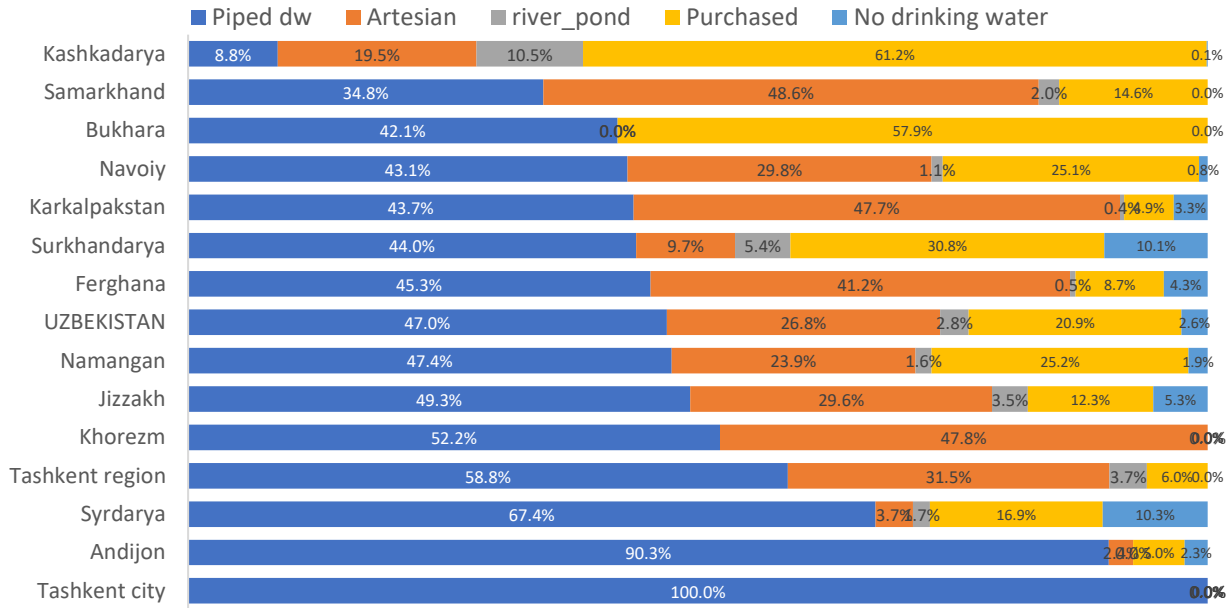
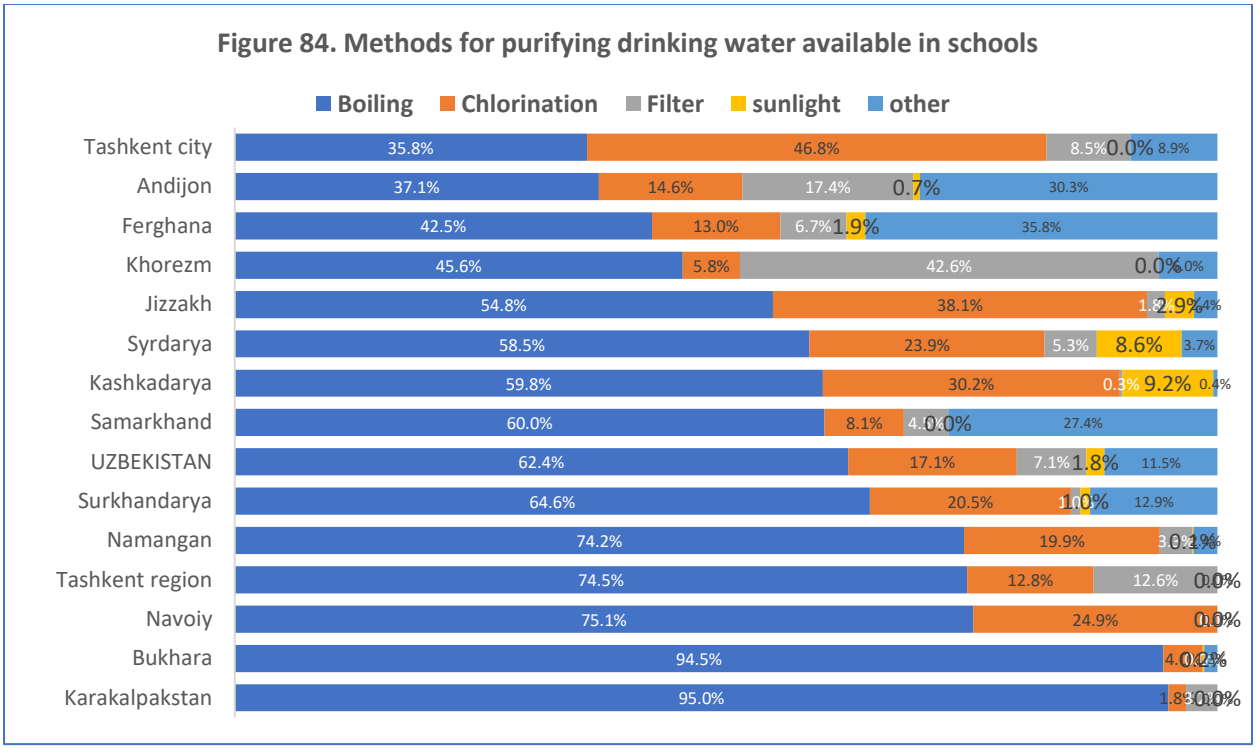
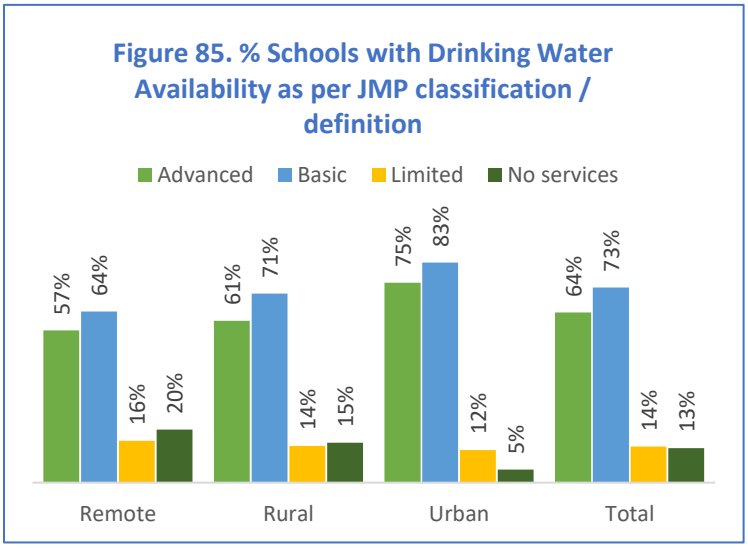


Figure 83. % schools by type/source of drinking water facility

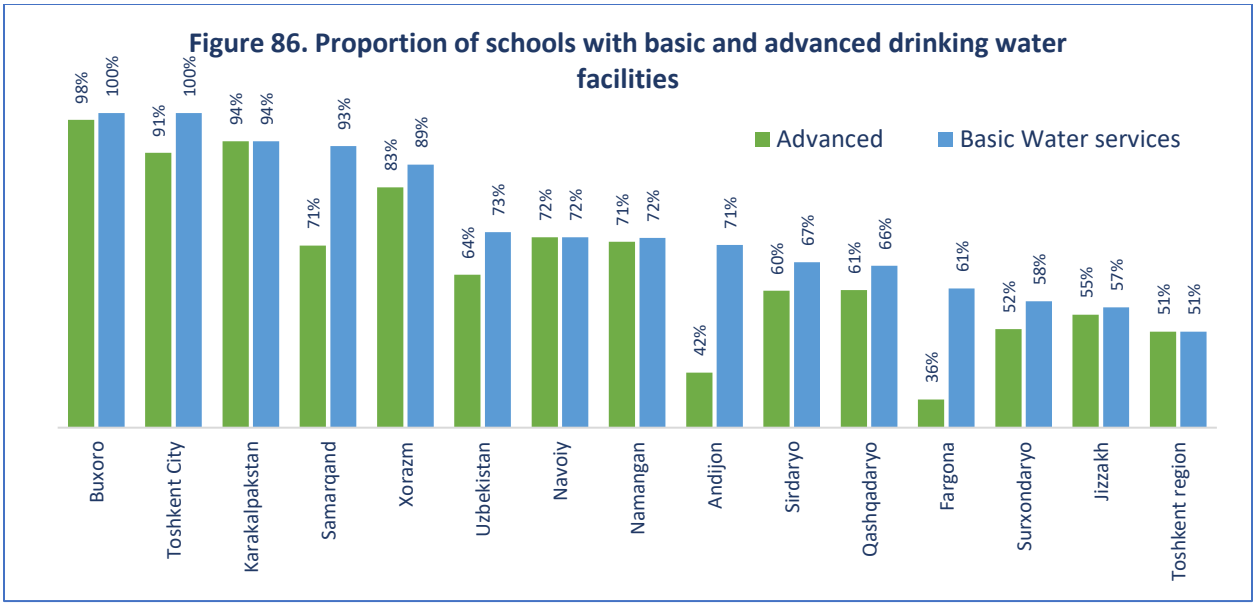


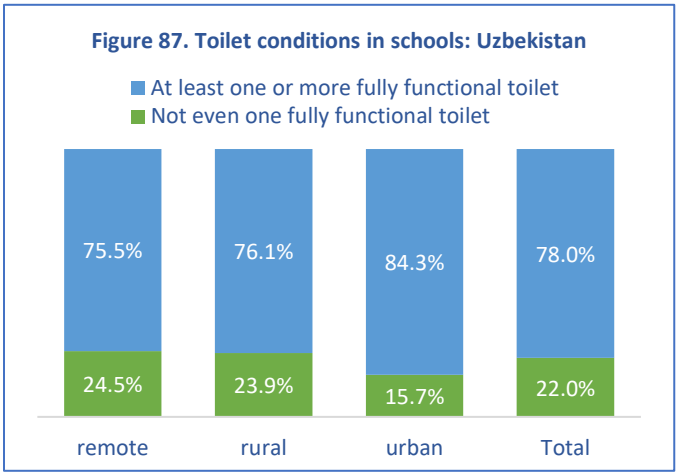


Using the WHO/UNICEF Joint Monitoring Programme (JMP) service ladders, designed to track progress towards a basic level of WASH services in schools, the water situation in Uzbekistan schools is assessed. As per the JMP classification, drinking water from an unimproved source or no water source at the school is considered as "no services"; drinking water available from an improved source, but water not available in schools throughout the school period is considered as "limited services" and drinking water from an improved source available at the school throughout the school time is regarded as the "basic services". Basic services with healthy practices of water purification is considered as "advanced services" by the JMP classification.

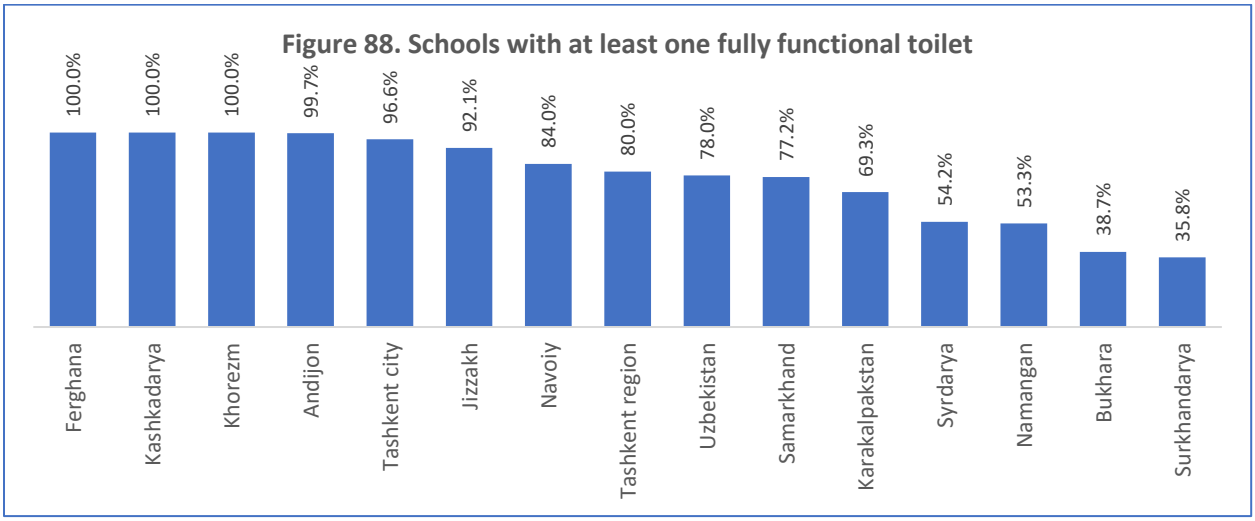


The analysis shows that overall, 74 percent of the schools in Uzbekistan had "basic water services" in 2020 while 14 percent of the schools had only "limited water services" and another 13 percent of the schools fell under the category of "no water services". However, in absolute terms, around 2600 schools with 1.43 million students attending them have either no or limited water services.



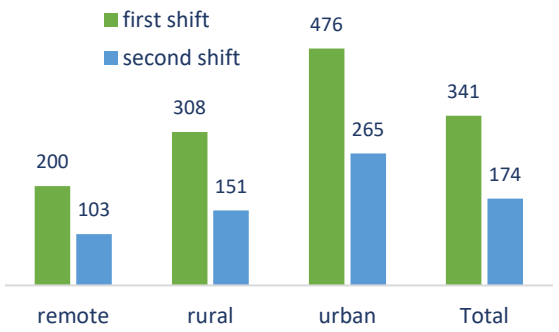


SANITATION: Around 78 percent of the basic education schools reported having at least one set of functional toilets (2-3 outlets on an average). In urban areas, 84 of the schools reported a fully functional toilet compared to 76 percent of the schools in rural and remote areas. In Fergana, Kashkadarya, Khorezm and Andjon, almost all schools reported having at least one fully functional toilet. In Bukhara and Surkhandarya, less than 40 percent of the schools reported having at least one fully functional toilet. In Uzbekistan, culturally prevailing practices, especially in rural areas, is to have toilets outside the houses or buildings.



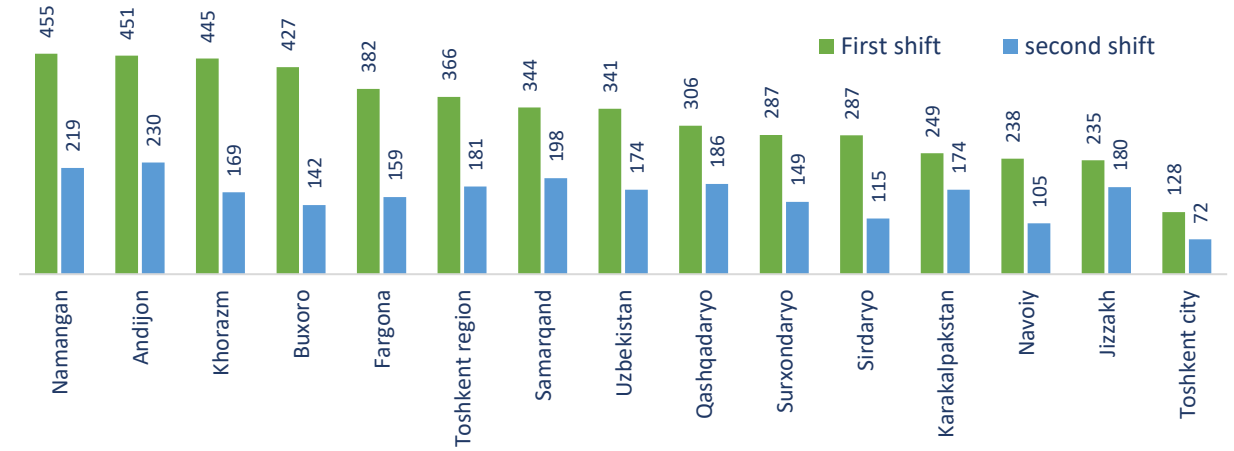
Most schools, particularly those in rural areas had only pit latrines of the Soviet design constructed prior to 1990s; these were identical and adjacent for boys and girls; placed outside the school building (in the case of 95 of the schools) and have no exterior doors or doors to separate squat holes. While no separate toilets for girls and boys were reported, as per the existing norms, each school is supposed to have one set of toilets (of three outlets) each separately for boys and girls. In Tashkent city, schools reported on an average reported 10 toilets and in Fergana, 2 toilet blocks on an average, but in all other regions, schools on an average had less than 2 toilet blocks.

Figure 89. Students per toilet (Student: Toilet Ratio (STR))



Ideally the functional pupil to toilet seat ratio should be 50 or less. Since the same toilets in schools would be available for different time slots for students attending different shifts, it was decided to look at the Student: Toilet Ratio (STR) separately for each shift. On an average, STR for the first shift was estimated to be 341:1 and for the second shift, it was 174:1; both were too far away from an ideal situation. The STR was high in urban areas compared to rural or remote area schools. During the first shift, 95 percent of the schools had a STR above 50:1; and 2/3rds of the schools had a STR of above 200:1. In urban areas, 76 of the schools had STR above 200; while in rural and remote areas, 67 percent had STR above 200.

Figure 90. Students per Toilet (students to be covered by a single set of toilet)



UNICEF (2012)[41] prescribes the standards for WASH facilities, and "sufficient toilets available" available means at least having "1 per 25 girls or female staff, and 1 toilet plus 1 urinal (or 50 centi-meters of urinal wall) per 50 boys or male staff." In Philippines, "Three-star approach for WASH in schools"[42] also uses the "Pupil to toilet" criteria.

[41] UNICEF (2012): Water, Sanitation and Hygiene in Schools: A Companion to the Child Friendly Schools Manual.

[42] UNICEF- GIZ (2013)'s The Three Star Approach for WASH in Schools is designed to improve the effectiveness of hygiene behaviour change programmes. The approach ensures that healthy habits are taught, practiced and integrated into daily school routines.

Given Tashkent city schools have on an average more than 10 toilets, the STR was reasonable around 128:1 during the first shift and 72:1 for the second shift. In Namangan, Andijon, Khorezm and Bukhara, the STR was higher than 400 students per toilet. On an average, schools in Uzbekistan need an additional 20 toilets to meet the desirable STR of 50:1. In spite of having the highest number of toilets per school, schools in Tashkent city require almost 49 additional toilets to meet the 50:1 STR. Schools in remote areas and in Jizzakh and Karakalpakstan needs an additional 10-14 toilets per school to meet STR 50:1. In the country, in 94% schools, toilets are situated outside the school building, but within school campus. In remote and rural areas, toilets are mostly (98-99 percent of the schools) outside the school building. In schools in urban areas, in around 22 percent of the cases, toilets are within the school building. Among the regions, in Tashkent city schools, 99 percent of the schools had reported having toilets within the school building. On the other hand, in Syrdarya, Karakalpakstan and Navoi, not more than 10 percent of the schools had toilets within schools.

Only 22 percent of the schools in the country were connected to a central sewage system. 41 percent of the urban schools as compared to 17 percent of the rural schools and 10 percent of the remote schools were connected to a central sewage system. In Tashkent city, 97 percent of the of schools were connected to a central sewage system, followed by Andijon (96 percent) whereas in Kashkadarya, only around 2 percent of the schools and in Surkhandarya, only 3 percent of the schools were connected to central sewage system. It is not clear how the waste is processed in schools where the toilets are not connected to a central sewage system.

The JMP classification for sanitation considers “unimproved sanitation facilities or no sanitation facilities at the schools” as “no services”; “improved sanitation facilities at the school that are either not single-sex or not usable” as “limited services” and “improved sanitation facilities at the school that are single-sex and usable (available, functional and private)” as “basic services”. Basic services that are in adequate numbers is considered as “Advanced Services”.

Overall, less than 2 percent of the schools can be considered as having “advanced services”. Around a tenth of the schools qualify to be in the “Basic Sanitation services” category whereas a large majority of schools – 57 of the schools- comes under the “Limited services” category. Around 23 percent of the schools were in the “No services” category, which is not surprising given that 22 of the schools reported not having functional toilets.

Figure 91. Uzbekistan: Proportion of schools with Sanitation facilities as per JMP classification/ definition

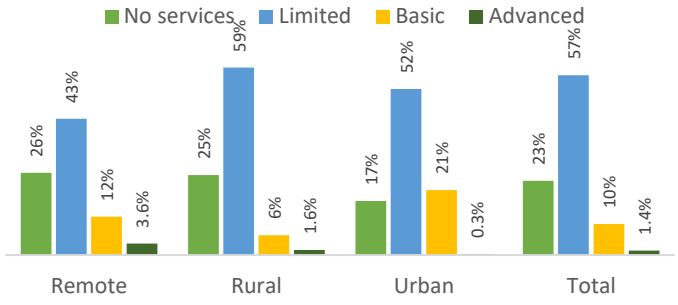
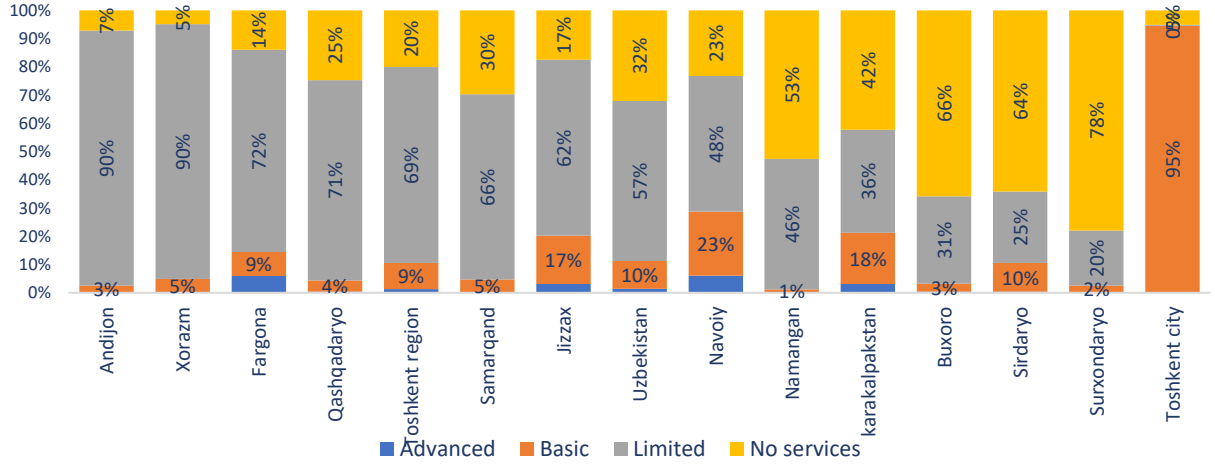


Figure 92. Uzbekistan: Proportion of schools with Sanitation facilities as per JMP classification/ definition: by Regions



HYGIENE

Hygiene is a multi-faced concept and can comprise of many behaviours or practices, like handwashing, menstrual hygiene and food hygiene that help maintain health and prevent spread of disease. The explicit reference to hygiene in the text of SDG target 6.2 represents increasing recognition of the importance of hygiene and its close links with sanitation. Hand hygiene, in particular, is one of the most important measures to prevent the spread of diseases, including COVID-19. Functioning handwashing facilities with water and soap are necessary to practice safe hand hygiene[43].

As per the JMP ladder for hygiene, the presence of a handwashing facility with soap and water on premises has been identified as the priority indicator for global monitoring of hygiene. Schools with handwashing facilities with water and soap available at the time of the survey are considered to have 'basic' service. Those with handwashing facilities that have water available, but no soap, are considered to have 'limited' service, while schools with no facilities or no water available for handwashing are classified as having 'no service'. An 'advanced' level for hygiene might include tracking if handwashing facilities are available at critical times (before eating and after using the toilet), if they are accessible to all users, and if menstrual hygiene education and products are provided.

Hygiene facilities: Around 96 percent of the schools reported having sink outlets for handwashing. Most of the schools and preschools reported having soaps or sanitizers for handwashing. However, there are challenges in terms of the adequacy of hand-washing outlets - In basic education schools, on an average, for every 168 students there is a handwashing outlet in the school during the first shift; and 84 students per handwashing sink in the second shift. In terms of solid waste management, in more than 90 percent of the schools, garbage disposal is done through municipal waste management system. However, in the rest of the schools, garbage is either buried, burned, or simply dumped in the school premises, which is very unhealthy.

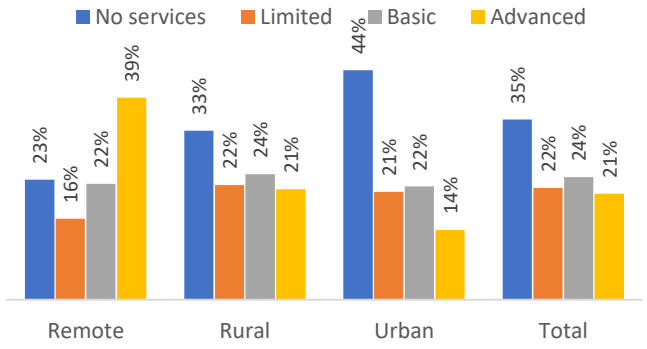
Hygiene Education: While more than 90 percent of the schools reported promoting handwashing habits among students after the use of toilet among students, few schools reported promoting regular handwashing before and after eating meals or after outdoor engagements in games and sports. Overall,

[43] https://washdata.org/monitoring/hygiene

around 75 percent of the schools reported displays of posters and messages for promoting the health and hygiene habits, while a little more than half of the schools reported having a school cleaning /WASH programme through which the health and hygiene behaviours are promoted/ communicated. Only around 40 percent of schools reported that health & hygiene lessons are integrated into classroom lessons.

Hygiene Practices: As per JWP classification, "no handwashing facilities available or no water available at the school" is at the bottom of the ladder; "handwashing facilities with water, but no soap" is considered as "limited services"; "handwashing facilities with water and soap available" is considered as basic services; elements of WASH programmes and hygiene education is considered "advanced services". In Uzbekistan, overall, more than a third of the schools have literally no services, with another 22% schools having only limited services. Only a fourth of the schools have basic hygiene services, with slightly more than a fifth having advanced hygiene practices in the schools.

Figure 93. Uzbekistan: Proportion of schools with Hygiene practices as per JMP classification/ definition



Policy Goal 2: Quality and Relevance

Curricular reforms:

An analysis of the Uzbekistan school curriculum carried out by UNICEF experts in 2018 (as part of the process of informing the ESP 2019-2023) revealed that the then existing curriculum was "too much focused-on imparting 'knowledge' directly than enhancing the skills of children to learn and apply knowledge". The review also shows that the wide range of distinct subjects currently offered within the secondary education system (such as *Odobnoma*, Fundamentals of the State and Law, National Ideas, Appreciation of the Motherland, and History of Religion) are not usually given stand-alone status internationally. The issue of a content-based curriculum (forming theoretical understanding of the subject rather than skills and abilities to apply the knowledge) was widely acknowledged in the country even before 2018, it was only in 2018 that the Republican Education Center (REC) under the Ministry of Public Education (MOPE) seriously considered the need for reforming the curriculum. Further the UNICEF-MOPE (2019) study on the learning levels of primary graduates pointed out the issue of children not mastering the skills for application of knowledge and higher order thinking skills, which further highlighted the importance of curricular reforms. The ESP 2019-2023 argued for curricular reforms and textbooks revision for improving quality and relevance of education.

The ongoing curriculum reforms in Uzbekistan aims at enhancing the competency-based approach. The curriculum revision was also sought to reduce the content load of the (then existing) provision to make it manageable for students and teachers. During 2017-18, UNICEF provided technical support to the government to review the then existing curriculum and to identify the core competencies that the country aims to promote through the general school education. Following this, in 2019, UNICEF provided technical support to develop the first ever National Curriculum Framework (NCF) for the general secondary

education system. The NCF envisages and emphasizes the detailed subject-wise and grade wise curriculum to be gender sensitive.

The discussions around the curricular reforms were also acknowledged by the new Law on Education (2020). Article 35 of the new Law describes about the curricula in the process of education. The Law further states that the "curriculum of general education subjects should be aimed at the all-round development of the personality, the formation of knowledge, abilities, skills, outlook and the development of students' abilities. The curricula of professional subjects are aimed at mastering the students of the relevant professions and specialties".

The REC/ MOPE's drive to reform school curriculum is mainly supported by UNICEF in the country, and in certain specific areas, by USAID, British Council etc. UNICEF-supported curriculum reforms in Uzbekistan aimed to shift education process from a fact-based, rote learning towards a competency-based approach and seeks to reduce the content load to a manageable level. The first-ever competency-based National Curriculum Framework (NCF) was drafted in 2020 with UNICEF support which emphasizes an inclusive and gender-responsive approach by annihilating stereotypes and focusing on positive messaging of equity issues. The drafting of NCF involved: (i) desk review of all available documents; particularly the legal documents and existing curriculum and associated documents; (ii) large-scale consultations with the senior officials, methodological experts, teachers, parents as well as students; (iii) capacity building of experts involved in the process of curriculum revision; (iv) developing the key components of an NCF, namely, a vision, aims and objectives, values and principles, subject specific requirements, assessment and assessment related requirements and evaluation; and (v) validation of the draft document. Following the finalization of NCF, a roadmap for the whole process of revision and implementation of subject and grade specific curriculum for 5 core subjects was also developed.

The process of curricular reforms (supported by UNICEF) involved extensive capacity building of the experts in REC were carried out. REC constituted five Subject Specific Curriculum Revision Working Groups (SSCRWG) with experts drawn from relevant fields. More than 19 training programmes and 56 coaching sessions were carried out in 2020 alone for training 280 members of the five SSCRWG. Apart from a focus on gender and inclusive principles, the training also emphasized on mapping "cultural competencies" in three subjects: Native Languages, Literature, and the History of Uzbekistan. Another set of 12-day training and a series of coaching sessions were imparted for textbook authors, methodologists and 80 SSCRWG members on introducing competency-based approach into TLMs, focusing on meta-cognition, deliberate practice, differentiation (including for SEN children), Higher Order Thinking Skills (HOTS), C-SMART learning objectives and formative assessment techniques. An eight-day training for 110 REC specialists, academia, and teachers-practitioners on formative and summative classroom assessments. In addition, 80 specialists in REC, academia and teachers-practitioners are equipped with new knowledge and skills on competency-based pedagogy for delivering new curriculum. A draft Guidance on pedagogy and assessment for the new curriculum was piloted during the training.

In 2020, the curriculum for grades 1 and 2 were finalized and textbooks were developed based on the same. For the new academic year in September 2021, to enable personalized and tailored instruction, UNICEF introduced a new competency-based curriculum and helped develop textbooks for 728,251 children newly enrolled in Grade 1 and 731,291 children in Grade 2. Complementary teaching and learning materials promote inclusion and uphold positive images of children with disabilities and ethnic minorities. In 2021, UNICEF worked with REC/ MOPE to develop Math, Mother Language and Science curriculum and textbooks for Grade 3, which will be introduced in schools in the academic year starting in September 2022.

USAID's Uzbekistan Education for Excellence Program[44]: The U.S. Agency for International Development (USAID) initiated a four-year, $29.5 million "Uzbekistan Education for Excellence Program" in December 2019. The project aims to mainstream capacity enhancement principles and practices within all activities and provide targeted professional development for specific individuals and groups. The programme also aims to develop relevant and appropriate student learning standards for four subjects: Uzbek language arts, mathematics, ICT, and English as a foreign language by updating and piloting revised teaching and learning materials for these four subjects; designing and implementing an in-service teacher professional development and support approach; and conducting program monitoring, evaluation, and learning activities, including impact evaluation research.

American Council's "English Speaking Nation" Project: The "English Speaking Nation" project supported by American Council aims at improving English education in Uzbekistan schools through improving English fluency for secondary school teachers, student-centered pedagogy, building communities of practice and by supporting and enhancing an ecosystem of professional development and teacher training. The project mainly consists of training secondary school teachers through three main interventions: (a) Secondary Teacher training (ESN: STT), as of November 2021, 91 Core Trainers were certified, 856 Regional Peer Mentors (RPMs) certified and 2000+ secondary teachers identified for training. It is expected that 394 teachers will be additionally certified as Core Trainers, and through Teacher-to-Teacher cascade mode, a 3rd tier of 15,000 Teachers will be identified and trained through 2023; (b) Teacher Coaches Program (ESN: CP); This programme uses Teacher to Teacher cascade training to be offered between December 2021 – March 2022, 9 Regional Peer Mentors to be trained, and 81 Simultaneous Teacher Trainings in all regions of Uzbekistan. The programme will help 7 Coaches (+ 4 TESOL Coaches) to support ESN Teachers, co-teaching in local schools, and leading English language trainings in local in-service training centers until December 2022; and (c) English Summer Excellence Training (ESN: ESET). The programme will support 520 Uzbekistan Teachers in 10 Locations in 2022.

Teaching Learning Materials (TLM)

A shift in the curricular approach cannot be achieved without appropriate teaching and learning materials. It is important to ensure affordable and sustainable provision of teaching-learning materials, especially textbooks for transmitting curriculum in classrooms. The main TLMs used in the education process in schools are the textbooks. One of the earliest reforms in textbooks preparation and provision in independent Uzbekistan was in 1995, when the Government decided to change the textbooks being produced using the Cyrillic script to Latin script for Uzbek medium education. Under the Asian Development Bank (ADB) supported Basic Education Textbook Development Project (BETDP, 1998-2004), new textbooks were prepared and printed. Under ADB's Second Textbook Development Project (2005-2010), a textbooks rental scheme was introduced to make textbooks more affordable to students. However, for more than a decade, textbooks were not revisited until the curricular reforms mandated a review of the textbooks in terms of content, production, and use.

In 2019, MOPE announced a new policy direction of 'alternative' textbooks. A policy of multiple textbooks depends on (a) developing the textbooks, (b) evaluating and approving textbooks by publishers, and (c) selecting from among the approved textbooks. The development of the multiple-textbook policy can poses two separate challenges for MOPE/REC: (i) How to ensure that the capacity is available to publish alternative textbooks of a good quality; and (ii) How to ensure that schools or local education authorities are able to play their role effectively in terms of textbook selection (UNICEF – MOPE Textbooks Policy Review, 2019). MOPE, as of now is going with the mixed system, as for certain subjects and grades,

[44] https://www.usaid.gov/sites/default/files/documents/Education_for_Excellence_May_3_2021_final.pdf

textbooks are developed centrally, with UNICEF's technical support, while for other subjects and grades, along with the centrally produced textbooks, the options of alternative textbooks developed with support from USAID and British Council are considered.

To support REC with the development of new textbooks (centrally developed under the leadership of REC), UNICEF carried out an extensive Textbook policy review in 2019. Further, along with the curriculum development, UNICEF supported the experts in the SSCRWG on curriculum and TLM development. A 10-day training was conducted for 130 current /potential textbook authors on key general and subject-specific aspects and techniques for developing textbooks for new curriculum in 2020. As a result, in 2020, the new textbooks for Math, Mother language and Science subjects for grades 1-2 was developed. These textbooks were introduced in the early grades in the academic year that started in September 2021. Over a million children in grades 1-2 are engaged by teachers using these textbooks. To ensure better instructional practices and engagement using the new textbooks, in 2021, UNICEF supported the REC to develop complementary guidelines, and other materials such as teacher guides, students' books and teacher training courses for grades 1-2. In 2021, UNICEF also provided technical support to MOPE to develop Math, Mother Language and Science curriculum and textbooks for Grade 3, which will be introduced in the next academic year starting in 2022.

Technology in School Education as a pedagogic tool

In 2020, with the onset of the COVID19 pandemic, schools were closed in March 2020, during the final term of the academic year 2019-2020. The Government decided to ensure education continuity through an emergency remote /distance learning (DL) programme. UNICEF provided technical and financial support (from GPE, UNICEF and DFID) to the REC in designing distance learning (DL) during the COVID-19 pandemic and school closure. In Uzbekistan, a 2019 UNICEF study showed that television is the key media channel with the largest audience among respondents aged from 14 to 30 years. Television also ranks first as the most authoritative source of information for young people. The UNICEF Knowledge, Attitude and Practice (KAP) study on the quality of general education and community participation in school-based management (2020) results also showed that 98 percent of the households with school going children in the country owned a television. The study also revealed that only around 40 percent of the school-going children were computer literate (can operate a computer) and only 37 percent were digital literates. Less than 30 percent of children in rural areas knew how to use digital devises. This shows that the country still had to deal with the "digital divide" and that the high-tech online based distance learning will leave out a large majority of school going children from accessing education.

Table 12. Access to online / digital resources and knowledge of using online resources

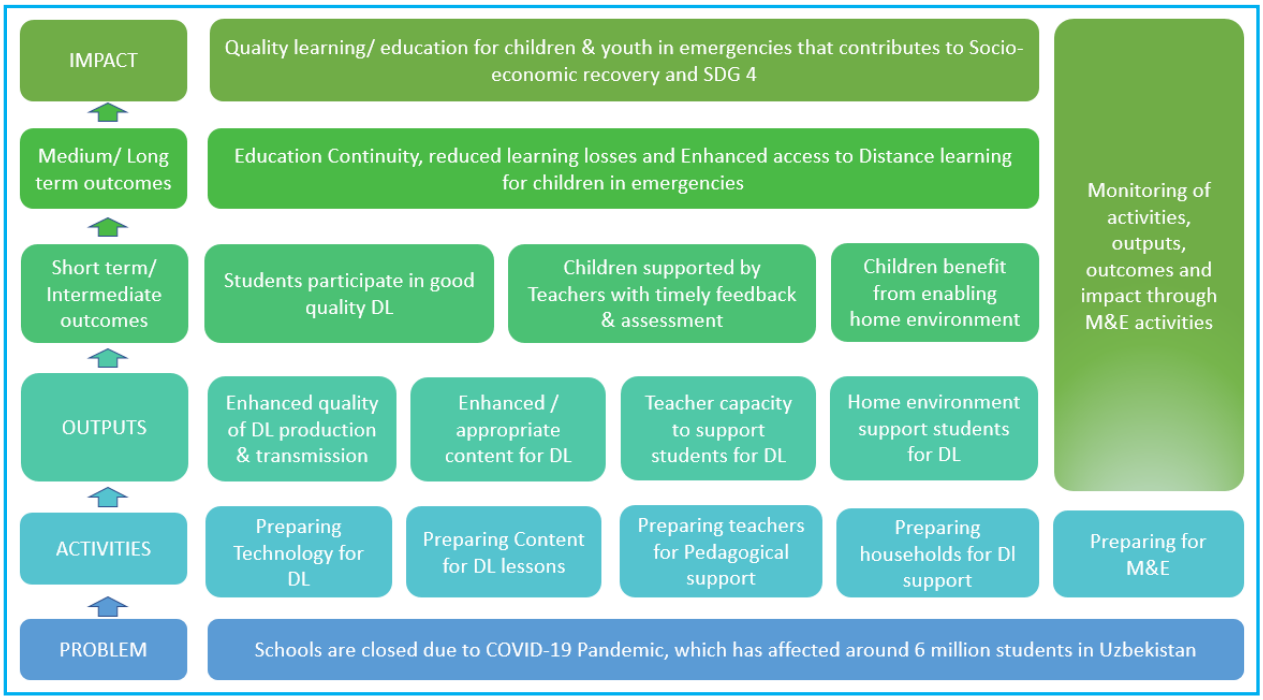
	Rural	Urban	TOTAL
Households with television (ordinary or LCD)	98.4%	97.7%	98.1%
Households with smart phone	70.9%	83.5%	77.2%
Households with computer (desktop / laptop)	19.4%	39.3%	29.3%
Households with Internet (mobile / landline)	30.2%	50.5%	40.2%
School children with computer literacy	37.4%	47.6%	42.2%
School children with digital literacy	29.6%	46.4%	37.6%

Source: UNICEF (2020)

Considering: (i) the possible exacerbation of learning inequities due to digital divide on account of low internet penetration and access; and (ii) limited digital literacy in the country as a whole and limited capacity of teachers to engage in a two-way communicating online teaching, it was decided that the best

way to provide education is through video lessons broadcasted through television and mobile apps. The UNICEF's technical support included guidance on: (i) preparing the overall DL planning, including modes and technology for DL; (ii) preparing the content and lesson plans for DL; (iii) preparing teachers for supporting students with didactic inputs, feedback and assessments; and (iv) preparing system for monitoring the process and outputs of DL and using it for course corrections and improvement.

Chart 6. Logical Framework of the Distance Learning Programme



As per the statistics of the Republican Education Centre (REC), a total of 4492 video lessons were created and broadcasted during March 31-May 25, 2020, covering all core subjects for grades 1-11, and curricular areas meant for the last term of the academic year. These lessons were broadcasted through four government-owned channels. Every day, 4 lessons per grade, each of 15-20 minutes duration was telecasted (thus a total of one to one and a half hour lessons), and the broadcasting timetable was announced well in advance for the week. In addition, the video lessons were also made available for students to access any time through the "*online maktab*" telegram channel (which has around 84,000 subscribers and an estimated 2.6 million views daily) as well as the telegram channel of the MOPE (with 80,000 subscribers and 250,000 views on an average daily). The DL programme through television was targeted at reaching at least 5 million (out of 6.2 million) school going children. This was followed by 120 lessons related to communicative English, Science, Technology, Engineering and Mathematics, Future labs were broadcasted during the summer vacation. Since school re-opening in September 2020, a total of 5192 video lessons have been created and broadcasted. Overall, more than 11000 TV lessons have been prepared and broadcasted since March 2020.

Table 13. Distance Learning programme for General Secondary Education in Uzbekistan: Video lessons produced and broadcasted during the first phase (March – May 2020)				
	Uzbek	**Russian**	**Karakalpak**	**All**
# of video lessons planned	2000	2000	1000	5000
# of video lessons broadcasted (March 31- May 25, 2020)	1950	1948	594	4492
Duration of video lessons planned (total in hours)	1000	1000	500	2500
Total duration of broadcasted lessons (in hours)	1462	1461	445	3368
Number of educators trained to prepare video lessons	99	89	42	230

Source: Republican Education Centre (REC) under the Ministry of Public Education

UNICEF carried out a Rapid assessment of the outreach of the distance learning programmes during the initial phase[45]. The results of these the assessment is summarized below.

Learning Continuity: A vast majority of children continued their education during the lockdown and school closure – the polls and Rapid Survey show that close to 96 percent of students continued their education. While 85 percent of students studied through distance learning, around 11 percent students engaged through self-study, either using textbooks and in some cases, with some additional support from teachers. Several children were not studying during the quarantine mainly due to lack of access to DL methods and infrastructure (not having television, internet etc.) as well as children's inability to handle the stress associated with learning in remote mode. While video lessons broadcasted on television was one of the main means of DL for children in Uzbekistan, a sizeable number of children also used telegram app and other online facilities as well. Overall, children were using multiple modes for distance learning. More than 3/4th of the children learned in Uzbek language during DL. A fifth of the children studied in Russian language. Overall, 3 percent of children used Karakalpak language for DL – they were mainly from the Republic of Karakalpakstan. Close to 60 percent of children attended DL lessons regularly and did not skip any lessons while 36 percent children attended DL only sporadically and the rest missed most of the lessons. Children missed DL lessons mainly due to disruptions in the availability of electricity and internet and lack of interest among children to study.

Parental/family support for students in DL: A large majority of parents ensured that someone in the family participated actively or passively with children in the DL process. Parents also helped children in doing homework as well as encouraged them to do well during the DL process. Parents also reprimanded children who were irregular with their studies. Parents highlighted several positive features of DL programme: they felt that the DL programmes facilitated children to study even during the quarantine, DL lessons facilitated parents to observe and support children during their learning process, video lessons were imparted by some of the best teachers in the country and the short duration of video lessons were highlighted as some of the positive features of DL programme by parents. However, parents also highlighted some of the limitations of DL programme. They felt the short lessons were perhaps inadequate for children to learn and they observed that some of the video lessons were not of expected quality. There were also concerns about lack of teacher-student and peer interactions and discussions and clarification of doubts in a timely manner in a purely DL process. There were also concerns about the timing of broadcasting, language issues etc. While more than a fifth of the parents felt that there was no sizeable effect of DL on children's learning, 15 percent parents felt that the knowledge of children improved under DL, but a whopping 2/3rds of the parents felt children experienced learning losses during the quarantine period, inspire of attending DL lessons.

[45] Please see UNICEF (2020): Rapid Assessment of the Outreach of DL during COVID19 lockdown"

Teacher support for students during DL: Rapid Survey results show that parents and students were quite appreciative of the support provided by teachers in terms of additional support and explanations of DL lessons, support for doing homework as well as evaluation of homework and the encouragement teachers extended to students. Teachers reached out to students mostly through telegram channel; and in Tashkent city, teachers were also using kundalik.uz portal as well – most of the time, teachers used telegram, phone as well as kundalik.uk to support children with homework and its evaluation and feedback.

Student views on the experiences of DL: Students in general, have very positive experience with DL. An overwhelming majority of students were satisfied with the content, pedagogy, duration and timing of broadcasting of lessons in DL. Students also highlighted the advantages of DL: the very fact that they can study at home, there were lesser lessons and lessons of shorter duration and the lack of teacher control were some of the main factors that made DL a good experience for students. Students also expressed their concerns over some of the "not-so-positive" aspects about DL programme if done as a stand-alone mode of education. Many expressed some problems with the lessons broadcasted, both in terms of content and quality as well as the duration. Lack of interaction with teachers as well as peer students were also highlighted as main drawbacks of DL lessons (if only DL was there as a learning method).

Remedial Education[46]

When COVID-19 struck, about 6.2 million learners in Uzbekistan experienced education disruptions. Inconsistent access to and effectiveness of distance learning modalities across student groups resulted in substantial learning losses, exacerbating existing inequalities in learning opportunities and outcomes. When schools reopened in November and December 2020, to assess and compensate for the learning losses, the Government, with UNICEF support, developed blended learning programmes as well as individualized learning remedial and catch-up programmes, which are currently being rolled out. These programmes aim to remedy lost learning and reorient instruction in the long-term, with a focus on grouping students according to their learning levels and teaching accordingly. UNICEF provided support to identify priority learning outcomes and success criteria, assess learning loss and knowledge gaps and design catch-up plans for students lagging behind. The most experienced teachers led the individual or group catch up sessions. Programme Guidelines, which included links to demo videos on using different online applications for teaching, learning, and assessing, were disseminated across the country to teachers and principals. UNICEF's and MOPE's commitment to inclusive education and providing tailored instruction to support student learning is reflected in the following key results: Since September 2020, the remedial education programmes have targeted 9,825 schools (98 per cent of schools in the country), expecting to benefit 4,437,262 students (2,189,273 are girls) in Grades 1 to 11. UNICEF supported the development and distribution of more than 30,000 information, education and communication materials related to remedial education. UNICEF also printed and distributed 10,000 guidelines for both teachers and parents to support blended learning. As schools prepared to reopen, UNICEF directly trained 500 teachers on how to implement blended learning and remedial education, including differential instruction in their classrooms. UNICEF also provided online and offline courses to teachers in all 9,986 schools across the country.

[46] This section is drawn from the UNICEF (2021) article "Curriculum reform to meet the individual needs of students: Uzbekistan Case study",
https://www.unicef.org/media/107911/file/Curriculum%20reform%20to%20meet%20the%20individual%20needs%20of%20students%20(Uzbekistan).pdf

Re-imagine Education

UNICEF supported MOPE in modernizing digital learning platform www.maktab.uz to meet the contextual learning needs of children in remote areas, girls, and children with special needs. More than 1000 courses from global resources on foundational, transferrable, and digital skills were curated and translated into Uzbek. Specific initiatives were launched to support girls in STEM, social innovation, and entrepreneurship skills.

Assessment

Policy goal 3: Governance and management

Systemic reforms, governance, and management

In September 2020, the Government of Uzbekistan adopted the new Law on Education. UNICEF supported SISEQ throughout the process of developing the new Law. The Law Law on Education (2020) reflects a child-rights based approach, the Law also details out the state obligations to ensure good quality education for all children in an inclusive and equitable manner. The Law focuses not only on provision, but also on the quality of education, particularly the processes and outcomes, it also focuses on teacher development. For the first time, the Law on Education provides a legal base for introducing Inclusive Education (IE) for the children with disabilities (CwD).

Inclusive Education (IE): Article 20 of the new Law on Education (2020) provides legal base for implementing inclusive education in schools. In addition, President's decree # 4860 (October 2020) that approved the concept and provided a roadmap for gradually introducing inclusive education in all mainstream schools in Uzbekistan by 2025.

Summary of Achievements and enabling factors in School Education

System strengthening:

- The new Law on Education (2020) has, for the first time, put the legal framework on education using a rights-based approach, and along with Presidential Decree # 4860, has provided for the first time in the country, a framework for introducing inclusive education, particularly for children with disabilities (CwD).
- The transition from 9 years of schools with 3 years of lyceums or professional / vocational education to 11 years of school education (while continuing the option of 9 plus 2/3 years of professional /vocational education) has allowed students to continue education at higher secondary level than moving to vocational education immediately after grade 9.
- The establishment of a framework and systems for Quality Assurance mechanisms as well as teacher professional standards are important steps in establishing enabling environment for school education.

Access, equity, and quality

- Uzbekistan has maintained high enrollment rates at primary and secondary education levels. The system provides for 6.2 million children.
- Inclusive Education (IE) programmes have been introduced, for the first time, on a pilot basis in 42 schools in the country.
- Uzbekistan has taken important decisions to measure quality of education (through measurement of learning outcomes) by participating in international assessments as well as conducting national assessments. There has been good progress in the activities related to assessments at various levels.

- During COVID-19 pandemic, MOPE ensured education continuity to the 6 million children through televised lessons and distance learning. More than 90 percent of the children were beneficiaries of such televised lessons.

Curricular reforms

- The country has drafted, for the first time, a National Curriculum Framework (NCF) which directs the curricular reforms to move beyond a content-based curriculum to competency-based, inclusive as well as rights-based curriculum. The grade and subject specific curriculum are developed in a progressive manner, and each grade and subject curriculum are expected to define educational standards in those areas, again, an improvement from the previous /existing curriculum that defines educational standards only at the end of the levels in relevant subjects
- Grade 1 and 2 curriculum and textbooks in core subjects of Language, Math and Science have been developed by 2021 and the textbooks have been implemented in the schools of the state, benefiting around 1.2 million children in the early grades.
- Grade 3 curriculum and textbooks will be finalized and introduced in schools in the academic year starting in September 2022. The curriculum and textbooks for subsequent grades will be introduced in subsequent years.

Challenges in Basic /School Education

Inclusive Education

- Though the government has decided to implement IE in schools, at present, they are limited to 42 pilot schools and as of now, they are more in the nature of "integrated" education than "inclusive" education since systems are not readied fully for inclusive education, particularly for children with disabilities. There is limited capacity at national, regional, district and school levels to design, plan and implement IE in schools in scale.
- While curriculum is being reformed to address issues of inclusiveness, the teacher capacities are not in place to implement inclusive curriculum in classrooms.

Quality of school education

- While curricular reforms are progressing, there is still limited systems to measure learning levels. The National Achievement /Assessment Survey (NAS) is yet to be institutionalized or standardized in the country.
- Though the country has one of the most favorable Pupil-Teacher Ratio (PTR) at less than 13:1, there are concerns about the quality and capacity of teachers not only in terms of their subject-specific knowledge, but also in terms of their pedagogic skills and competencies, particularly to impart competency-based curriculum and lessons.

Systemic factors

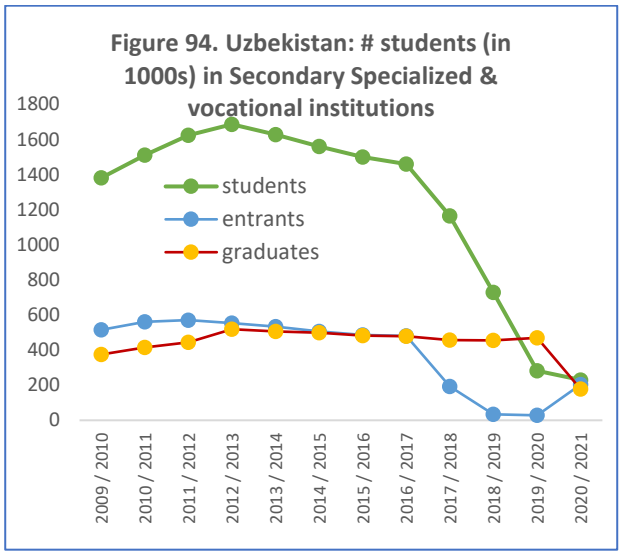
- The limited nature of EMIS has hampered the understanding of the school facilities, teachers or even the quality issues related to learning environment. The importance of improving the EMIS and generating adequate information about the systems through standardized research needs further attention.
- The capacity at various levels to carry out several activities is limited, particularly, for data analysis, for implement the quality assurance mechanisms and carry out evidence-based planning of innovative interventions.

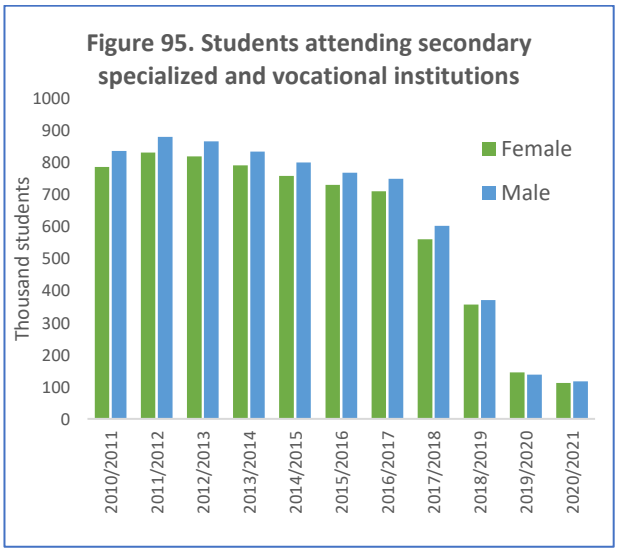
CHAPTER 5. Secondary Specialized / Professional Education

Progress in Outcomes

Professional education, including the Technical and Vocational Education and Training (TVET) systems in Uzbekistan is in flux. The Professional Education (earlier known as the Secondary Specialised Professional Education) system under the authority of the Ministry of Higher and Secondary Specialised Education (MoHSE) was a compulsory continuation of General Secondary Education, lasted 3 years and was conducted in either Academic Lyceums or Vocational Colleges. With the expansion of GSE in Uzbekistan from 9 years to 11 years (initiated in 2017; fully transitioned in the academic year 2019-2020), the education structure now offers three pathways to students for 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 years to 2 years in a vocational college.

The number of secondary specialized and vocational educational institutions had declined from more than 1500 institutions prior to 2018 to only 242 by 2018 -2019, but in 2020 and 2021, the numbers have increased to 668 and 758 respectively. Correspondingly, number of students in the system had declined from 1.6 million in 2012/13 to 174 thousand in 2018 but increased to 402 thousand by 2021. The intake / admission into secondary specialized and vocational institutions had declined from 560 thousand in 2010/11 to 28 thousand students by 2021– a decline by 20 times during the period. The number of graduates from these institutions have also started declining reflecting the reduced entrants into the system in the last few years. In terms of the gender indicators, more male students enroll in vocational institutions than female students.





The Government also offers "out-of-school" or "after-school" programs called the "Barkamol Avlod" (roughly translated into English as the "Ideal Generation") aimed at enhancing children's informal and extra-curricular education[47] through around 215 children centers spread in all regions of the country. The centers are also expected to "transfer diligence and professional skills to children, develop children's technical creativity with organization of training on working with technical equipment and computers."[48].

[47] Annex #1 to the Resolution #961 of the Cabinet of Ministers of 01 December 2017.
[48] "Uzbekistan to create Barkamol Avlod Children Centres", in: UzDaily, 14 March 2011.

However, these after-school programs are not free and hence not accessible to the children from the poor and most vulnerable families.

To improve formal and non-formal learning and employment prospects for young people in Uzbekistan, the Ministry of Employment and Labour Relations (MOELR) has been working towards developing systems and centers. The MOELR has been running 16 "*Ishga marhamat*" ("Welcome to job") mono-"markazis" or centers of professional education at regional levels, 30 centers at district levels and 136 centers at Makhalla levels for imparting technical and vocational skills.

Progress in Outputs and Activities

As envisaged in the ESP 2019-2023, in the professional/ vocational education sector, a National Qualification Framework (NQF) has been developed, the National Occupational Classifications (NOC) based on NQF has been revised and National Occupational Standards (NOS) for each professional based on NOS has been developed, all by 2020. To enhance the Professional Education/ TVET curriculum based on NQF, MOHSSE had carried out an analysis of PE/ TVET skill gaps and needs and a new curriculum is developed.

Reforms in professional /vocational education are carried out based on the Presidential Decree "On additional measures to improve the vocational education system" (adopted on September 6, 2019). According to this decree, a new system of continuous vocational education is being introduced in the country: primary, secondary, and secondary specialized vocational education. Vocational training centers are organized for adults and unemployed citizens. The fields of education and training in Uzbekistan is curated to the UNESCO International Standard Classification of Education 2013 (ISCED-F 2013). As per the Classification, there are a total of 12,107 professions and vocational positions in Uzbekistan, 64.3 percent of which are within the Professional Education system; 29.4 percent are in higher education; 5.8 percent are in training courses, and 0.2 percent of professions does not require special education. Within the Professional Education system, the primary vocational education accounts for 4342 (35.7 percent), the secondary vocational education accounts for 3031 (24.9 percent) and secondary special vocational education accounts for 437 (3.6 percent) of the key positions and occupations. Within the Higher Education system, 3439 (28.3 percent) occupations require a bachelor's degree while 127 (1 percent) require a master's degree and 10 (0.1 percent) require a doctoral qualification. Of the 5.8 percent training courses, 4 percent or 484 occupations or positions are in the realm of short-term vocational training accounts whereas for 218 occupations (1.8 percent), no professional qualifications are required. The concept of development of vocational education until 2035 includes increasing the participation of employers in the educational process and in the development of curriculum; establishment and support of non-governmental professional education organizations and ensuring the quality of education.

The new professional education system in Uzbekistan consists of 339 vocational schools (covering 182,310 children), 162 colleges (60,113 students) and 214 technical schools (62,331 students). In vocational schools, students are admitted after secondary education (grade 9 graduation) and 278 professional courses are offered with 583 types of qualifications, and 15,639 teachers or trainers. In 2021, a total of 182,310 students were enrolled, out of which 3205 (2 percent) were from low-income families. Government finances all the costs of the vocational schools. Vocational schools provide vocational education for 9th grade graduates. Most of the training time here is devoted to hands-on exercises. The training is focused on the areas of family business, construction, services, livestock, poultry, beekeeping, fishing, etc.

In Technical schools, 116 specialties and 177 qualifications are offered after grade 11, lasting up to 2 years. 62,331 students are attending these technical schools now (out of which a miniscule 541 are from low-income families), and 4883 teachers are working in these schools. In the academic year 2021-2022, 69,358 students are enrolled for full-time courses, 22871 students are enrolled in DL, 7993 students are enrolled in evening education and 2586 students are in Dual education programmes. While state grants meet up to 13 percent of the costs of technical schools, 87 percent of the costs are met by the payment agreements.

In the colleges or lyceums, students join for 2 years courses after 11th grade, where 364 professions and specialties and 705 qualifications are offered. As of now, 60,113 students were enrolled (out of which 545 are from low-income families), who were taught by 4085 teachers. For the academic year 2021-2022, the MOHSE plans to provide full-time education to 76,226 students, education through distance learning (DL) for 15119 students, reach out to 7775 students through evening courses and 4595 students through dual education. While government provides for 15.7 percent of the overall costs, 84.3 percent of the costs are met by payment agreements.

To modernize the professional /vocational education in the country, new concepts have been introduced into the professional systems, professional training programmes have been adapted to ISCE levels, international WorldSkills standards have been incorporated into 11 professions, and dual education was introduced in 30 vocational education institutions in 8 professions. In addition, Business Basics and Business Organization and Management Subject Training for Entrepreneurship have also been introduced. Moreover, the MOHSSE has been trying to link Professional and general competencies to professional courses and practices in the system and have authorized to change the curricula to enhance the practical content – with theoretical part occupying 30-40 percent and practical training in the courses to be enhanced to 60-70 percent of the overall courses.

MOHSSE has been in the process of developing a new curriculum for professional education based on the revised professional standards and indicators for assessing competencies have been introduced into the curriculum. So far, 21 educational standards, 432 qualification requirements and 6,832 theoretical and practical programmes have been updated. The practical training in the curriculum has been increased up to 60-70 percent and theorical components have been reduced to 30-40 percent of the overall training programmes. 9,421 teachers and masters have been trained in new programmes.

To reform the PE /TVET system, the MOHSSE has carried out the following: (i) established cooperation with 4,751 enterprises, (ii) Updated 21 educational standards, 432 qualification requirements and curricula, 6,832 theoretical and practical programmes; (iii) trained 9421 teachers and master trainers; and (iv) launched a dedicated platform http://edu.profedu.uz, dual, evening and distance learning programmes were introduced and new generation educational resources – including 1,478 sets of teaching materials, 128 new publications and electronic resources were made available. The results so far reveal that: (a) 26.1 thousand unemployed people were trained in short-term courses; (b) 54.5 thousand students started earning an average of 226 thousand Uzbek soums; (c) 18,126 people were employed in vocational training and an additional 6,481 employees have been hired since 2021.

An important development is also related to the partnerships established with foreign institutions in the field of PE /TVET. MOHSSE has also been able to attract international investments worth more than US $ 165 million to the PE/TVET (10 million Euros from EU, $ 15 million from GIZ, $ 5.6 million from Swiss Developmental Agency, $ 42 million from KFW and $ 93 million from ADB.)

The priorities for future work in PE /TVET has been identified as the following: (a) the concept of development of vocational education until 2035; (b) development of professional skills and practical skills of pedagogical staff; (c) Development of further cooperation with foreign educational institutions; (d) development of inclusive education; (e) quality of education; (f) Job certification; (g) modernization and implementation of the material and technical base in 2022-2026; (h) Digitization of education; (i) increasing the participation of employers in the educational process and in the development of curriculum: (j) providing opportunities for young people to pursue their first profession or specialty; and (k) development of dual education based on international experience; and (l) establishment and support of non-governmental professional education organizations.

In May 2020, the Government of Uzbekistan adopted a resolution[49] to approve the National Qualifications Framework (NQF) that defines the knowledge, skills necessary for the implementation of professional activities at each qualification level, personal and professional competencies, as well as ways to acquire the appropriate qualification level. The Resolution also approved the Regulation of System of National Qualifications, which is mandated with the task of organizing vocational training, advanced training and retraining of the unemployed, especially young people. As per the recent Presidential Decree[50], MOELR are expected to establish additional 28 centers of professional education at district levels and 864 centers of professional education at Makhalla level on technical skills, including accounting and entrepreneurship and in addition, implement short-term courses on technical skills, languages and entrepreneurship in 18 existing professional education institutions.

Summary of Achievements and enabling factors in Professional Education

Though the number of professional education institutions and enrollments have been declining in recent times, there are efforts to revive the systems and hence the overall architecture of TVET systems, their governance, funding, qualifications and quality assurance and links with the labor market, in particular, the roles of the private sector and industries are still in a state of flux.

Despite the challenges, the sector has managed to attract investments and partnerships from many development partners, both in terms of technology and finances.

Challenges in Professional Education

The professional education is still undergoing a range of changes. The sector needs reforms in the nature and types of courses offered, the practical content, industry engagement etc.

The PE in Uzbekistan needs to be reformed to match international labour market requirements, as a large number of young people from Uzbekistan migrate outside seeking jobs, and among those remain within the country, a sizeable number belong to the category of NEET (Not in Employment, Education or Training).

[49] https://www.ruecvet.uz/en/national-qualifications-framework-of-uzbekistan-is-approved/
[50] Presidential Decree # 5140 of June 8, 2021

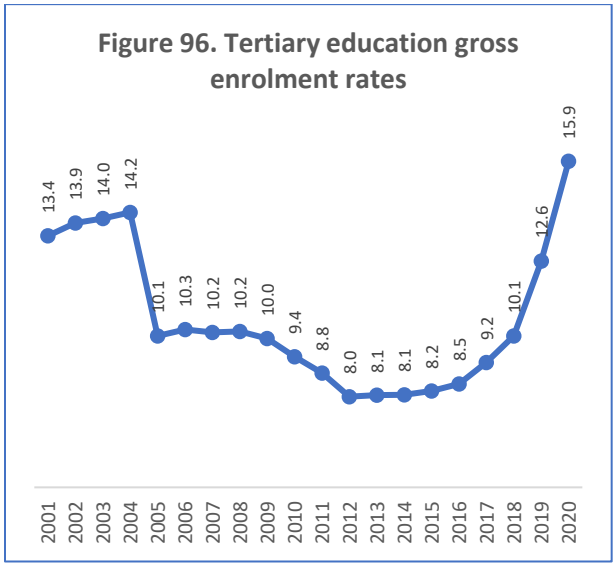
CHAPTER 6. Higher Education

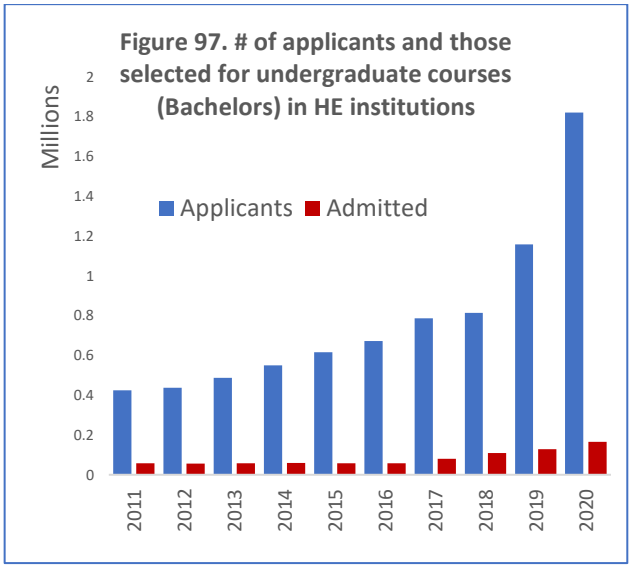
Progress in Outcomes

Around 571,500 students were enrolled in higher education institutions in the country in 2021- an increase of two times from 183000 students in 2001[51]. The State Statistical Organization (and the World Bank statistics[52]) reports a gross enrolment rate (GER) of 16 percent in HE in 2020 (14.9 percent among women and 16.9 percent among men), an increase from 8 percent in 2011-12 period. The demand for higher education in the country has been increasing, as the number of applicants for Bachelors programme entrance exams increased four-fold in the last twenty years, whereas those who got admitted into an undergraduate course has increased by only 2.8 times, and the overall intake rate remains less than 10 percent in 2021. However, the increase in HE enrolments are driven by increase in the admissions in Bachelors' programmes, though there have been marginal increases in the number of people getting admissions for Masters' programmes.

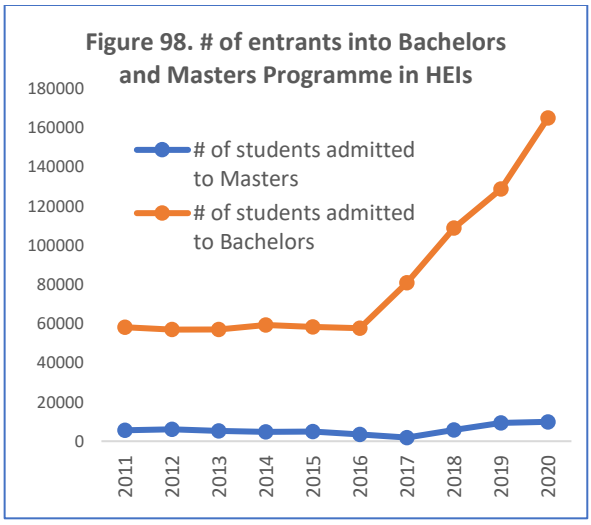
In terms of subjects, 48 percent of the students are admitted into a course in humanities and another 10 percent in social sciences such as economics, law etc. Only a fourth of the students in higher education were studying production and technical courses. Around 7 percent of the students do a Bachelors' or masters' degree course related to medical and related services. The overall increase in enrolments in recent years were driven by increased spaces in humanities related courses.

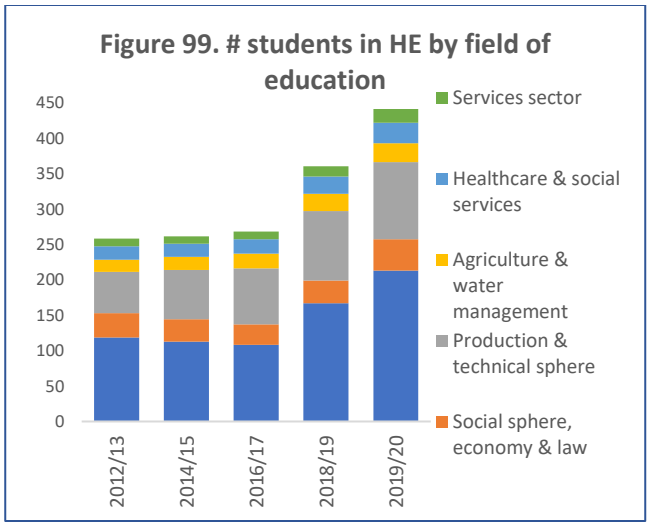
In terms of equity issues in HE, data to look at gender and regional issues in HE enrolments are available. Girls' enrolments in higher education is quite below that of boys, with boys /men accounting for 55 percent of all students in HE in 2021 (a decline from 64 percent in 2011) though women's share in HE enrolments have increased from 36 percent in 2011 to 55 percent in 2021.

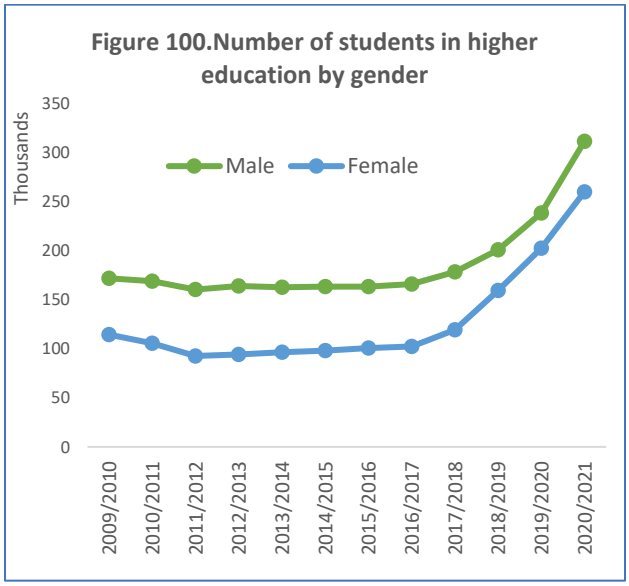


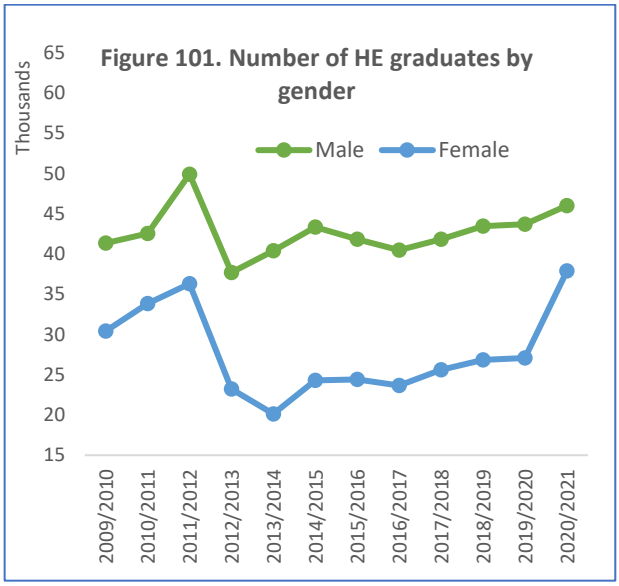


[51] https://stat.uz/en/official-statistics/social-protection
[52] https://data.worldbank.org/indicator/SE.TER.ENRR?locations=UZ

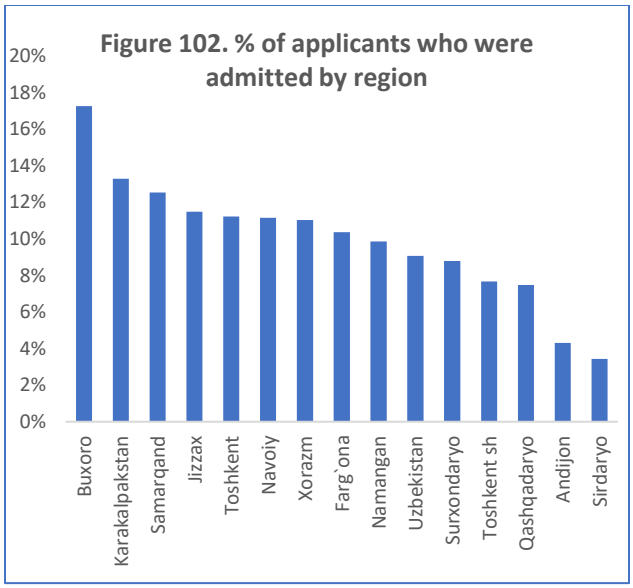


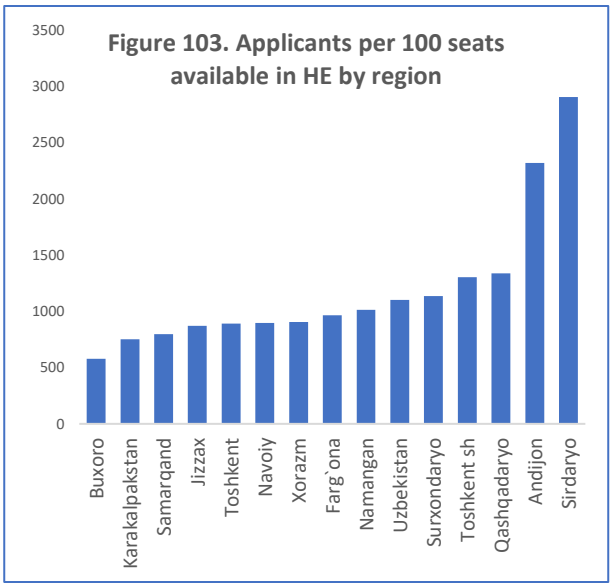


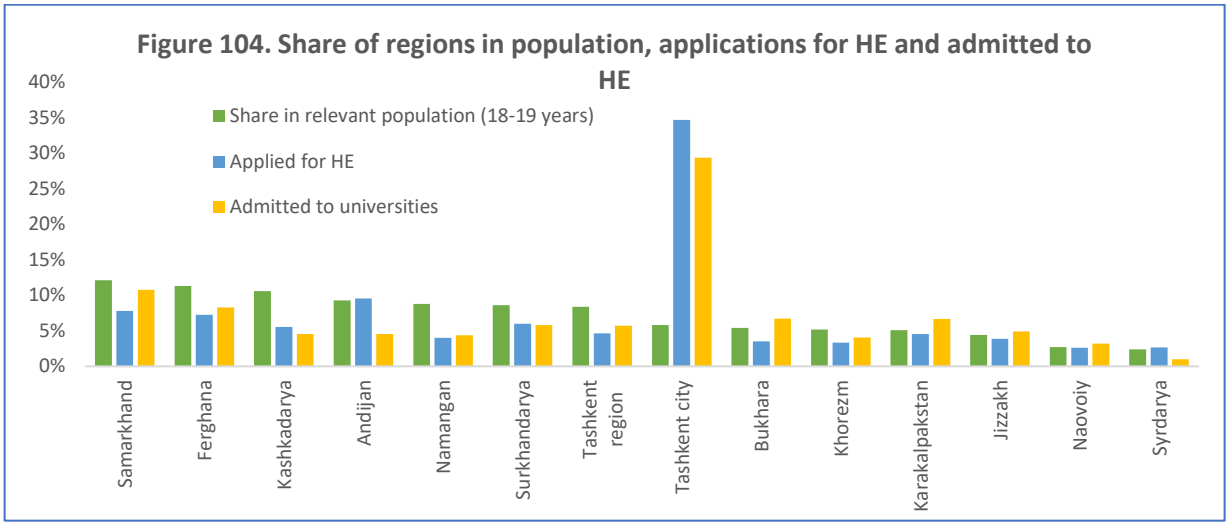




In terms of regional share in HE enrolments, there are huge diversity. Tashkent city accounts for less than 6 percent of the 18-19 years old population the country, but around 35 percent of applicants for HEIs and 30 percent of those who got admission into a Bachelors' course in universities were from Tashkent city in 2021. On the other hand, Kashkadarya accounts for 11 percent of all relevant population in the country, but only 5.5 percent of the total applicants for HE belonged to the region and 4.6 percent of those got admitted into HEI belonged to the region. Young people from Samarkhand, Ferghana, Andijan, Namangan, Surkhandarya and Tashkent region (apart from Kashkadarya) were under-represented among applicants and those admitted compared to their population shares in HE. On the other hand, proportionately more young people from Bukhara, Khorezm, Karakalpakstan, Jizzakh and Navoiy were admitted to HEI.







Progress in Outputs and Activities

There are currently 152 national higher education institutions (HEIs), more than double the number of HEIs that were available in the country a decade ago. The 152 HEIs also include 27 branches of foreign higher educational institutions and 18 non-state national institutions. 10 HEI were moved to self- financing mode in 2018. As per the statistics provided by MOHSSE, 268 new courses and 3948 additional student spaces were created at Bachelors level between 2018 -2021. In addition, the number of available seats (and hence admissions) in existing courses were increased by 10 percent by 2021. Renovation work in HEIs were carried out every year – in 2019, 60 HEIs, in 2020, 37 HEIs and in 2021, 85 HEIs had some renovation activities carried out.

A resolution of the Cabinet of Ministers on the improvement of the procedure for licensing activities in the field of non-state educational services (# 241, March 27, 2018) envisions to increase private sector provision in higher education. In the Decree of the President on the approval of the concept of development of higher education system of the Republic of Uzbekistan until 2030, (UP-5847, October

2021), it is targeted to increase the number of non-state HEIs to 35 by 2030 as well as the number of HEIs formed on the basis of foreign programmes to 45 by 2030.

The Decree of the President of the Republic of Uzbekistan on Measures to Develop the Spheres of Education and Upbringing, and Science in the New Period of Development of Uzbekistan (UP 6108, November 2020) it was aimed to have at least one non-state HEI, including on the basis of public-private partnership (PPP) in each region in order to create a healthy competitive environment in higher education and increase the coverage of higher education.

Availability of a National Qualification Framework for HE: A National Qualifications Framework (NQF) is available now (31.12.2020, PD-4939, 15.05.2020, 287 CMR Council for the Development of Professional Skills and Knowledge); also a Network Qualifications Framework (15.05.2020 287 CMR 31.12.2020 PD-4, Network Council on Professional Qualifications and Knowledge). A revised HE curricula and Professional Standards was approved on 15.05.2020 (287 CMR, 31.12.2020 PD-4939). A revised assessment and certification mechanism and processes in HE was approved in September 2021 (616 CMR, 31.12.2020, PD-4939 Qualification assessment).

Summary of Achievements in Higher Education

Recent efforts to increase the GER in HE has been successful and have resulted in increased GER in HE. The gender parity in HE has improved tremendously in the last few years, particularly due to the proactive efforts of government to enroll more female students into higher education. The efforts to attract foreign universities and efforts to encourage private HE providers have helped the country to enhance access to HE in the country.

Recent initiatives in improving the higher education curricula and standards are expected to enhance quality and future employability prospects of HE graduates in the country.

Challenges in Higher Education

Despite the recent efforts in increasing the number of courses and available seats, the GER at higher education is quite low compared to countries with similar lower-middle-income status. Many young people are reportedly in NEET (Not in Education, Employment or Training). The provision of HE in the country remain very low despite the recent successes in non-state and foreign providers.

One of the government's own study shows that there are 1500+ schools in the country who fail to send even a single student to HE. The regional disparities in access to HE remains a concern. Similarly, those who enter HE comes from well-to-do families and the access to HE among those from disadvantaged backgrounds is very low. The options of student loans from commercial banks and scholarships and stipends are quite limited in the country.

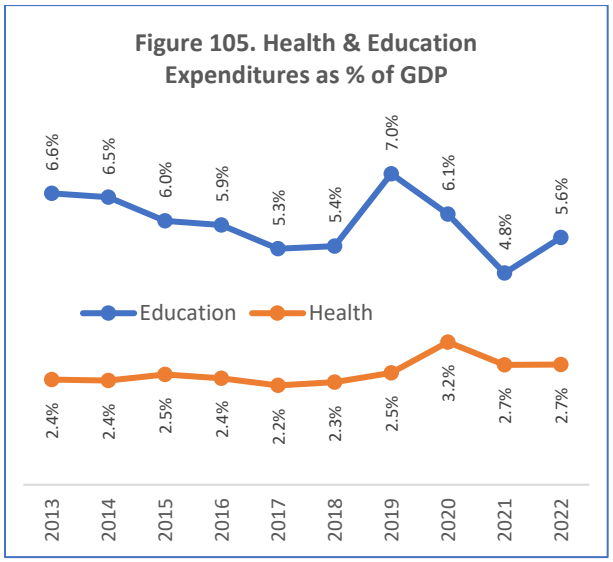
The quality and relevance of the HE courses offered needs further improvement. The increase in HE spaces is mainly due to increase in social sciences or humanities, with limited increase in Science, Technology, Engineering and Mathematics (STEM) courses and seats for young people.

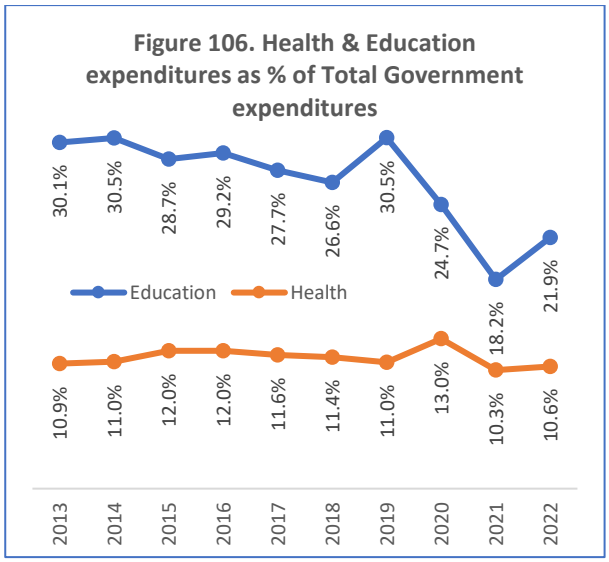
Access to the latest international literature in many subjects are limited due to the language constraints. The employability of HE graduates in international job markets leaves much to be improved and the HE institutions from Uzbekistan rank very low in international universities' rankings.

CHAPTER 7. Government Expenditure in Education

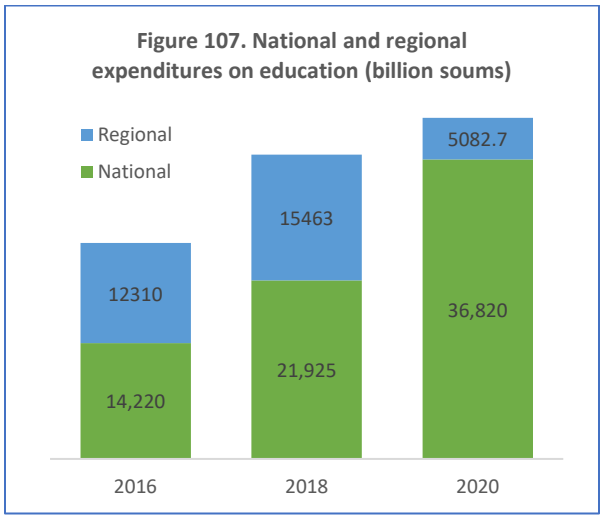
Overall expenditures on education

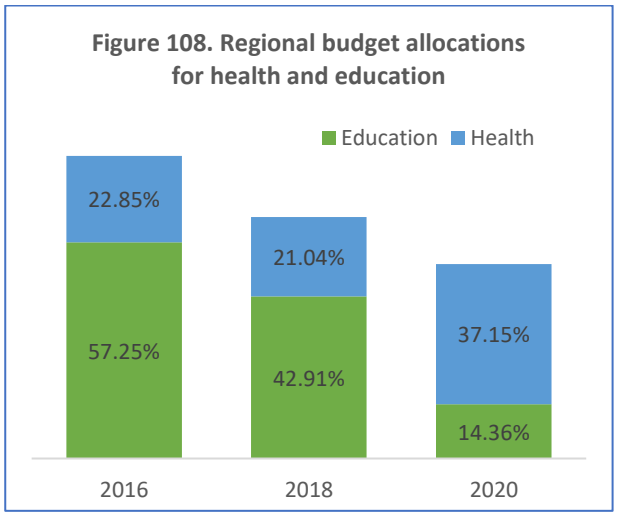
In Uzbekistan, education, along with healthcare, continues to be the major priorities of state policy and major items of state expenditures. While the overall GDP and government expenditures (in current prices) have been increasing, the share of education in both have remained the same or have even declined in recent years. The Government of Uzbekistan's allocations for education had increased from a low of 5.3 percent in 2016 to 7 percent in 2019, but had further declined to 4.8 percent in 2021, but the allocations for 2022 shows that the sector has been given enhanced attention in the 2022 budgets. Education budgets account for 25-30 percent of the state expenditures of the GOU.





The allocations for education in national budgets have been increasing. National budgets accounted for 59 percent of education expenditures in 2018, but by 2020, the share had gone up to almost 88 percent, indicating the declining allocations for education in regional budgets. However, this should be viewed in the context of the COVID19 epidemic, as the regional government's allocation for health care had increased.





Education sector expenditures had dominated the regional governments' budgets till 2018. Prior to the pandemic, the least allocation for education was made by Tashkent city (only 31 percent) while Ferghana region had allocated 48 percent of its budget for the sector. However, with the onset of the pandemic, the allocations by regional governments mainly went into the health care related aspects.

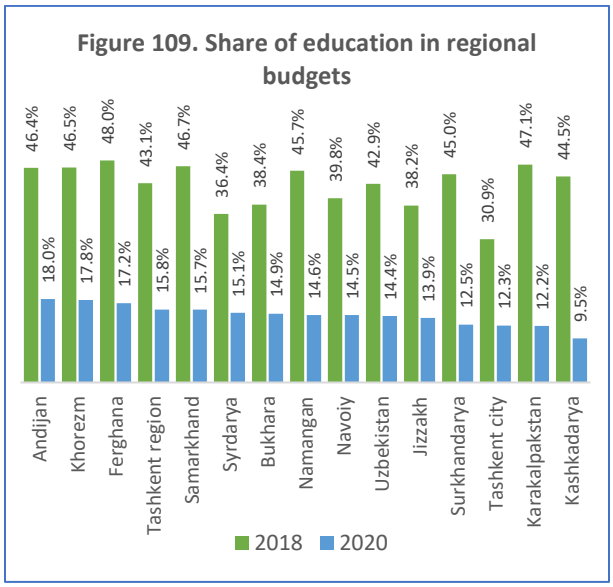


Figure 109. Share of education in regional budgets

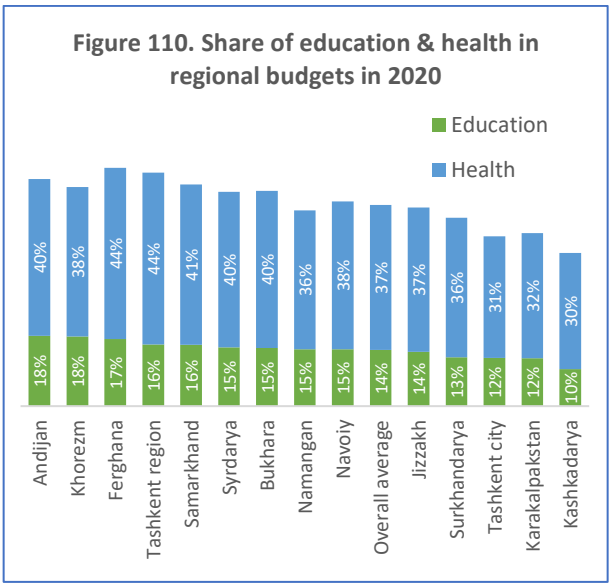


Figure 110. Share of education & health in regional budgets in 2020

The overall education expenditures as well as the expenditures on the main sub-sectors of education (preschool education, general secondary / basic education, and higher education) by GOU have been increasing in nominal terms (current prices). In terms of the share of sub-sectors in overall education expenditures, the share of preschool education has increased from 15 percent in 2018 to 18 percent in subsequent years; the share of higher and secondary specialized education declined from 2018 to 2019 but increased by 2021. More than 2/3rds of the education expenditures are spent on basic education (grades 1-11).

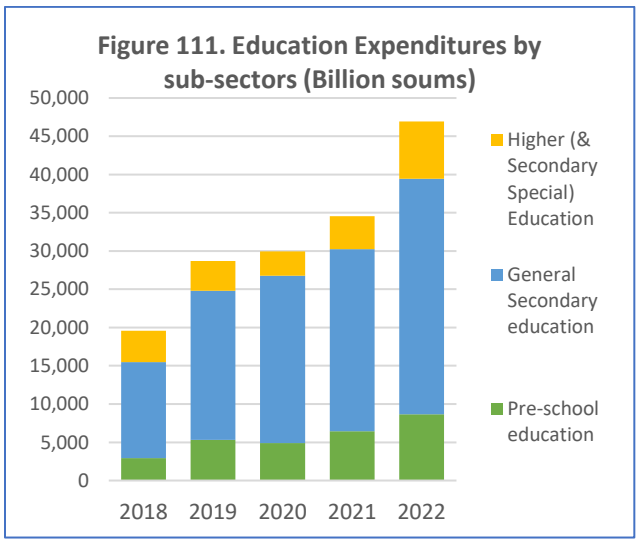


Figure 111. Education Expenditures by sub-sectors (Billion soums)

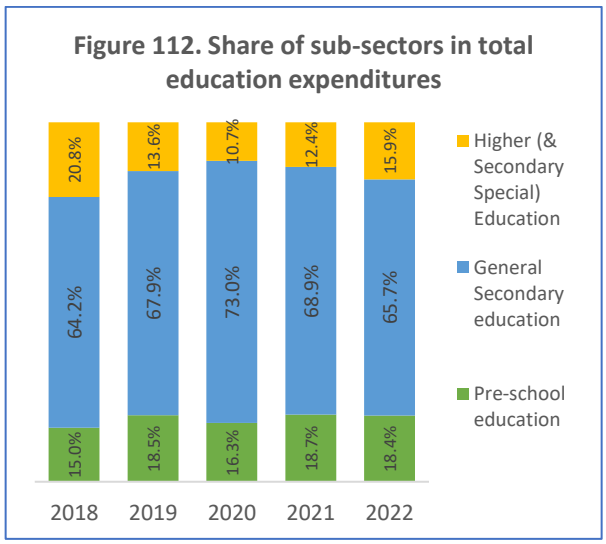


Figure 112. Share of sub-sectors in total education expenditures

The regional education budgets were mostly used for preschool and school education sub-sectors, with some funds allocated for training of personnel. The share of preschool education in regional budgets has increased from 17 percent in 2018 to 31 percent in 2020. Among the regions, Andijan and Khorezm had

allocated the highest for preschool education while Namangan and Syrdarya had allocated least for preschool education in 2020.

Figure 113. Regional education expenditures by sub-sector shares

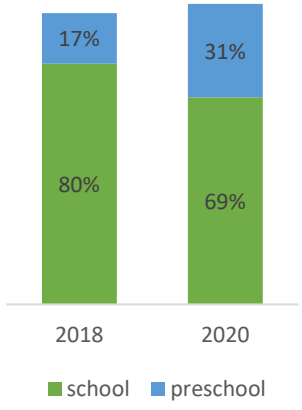
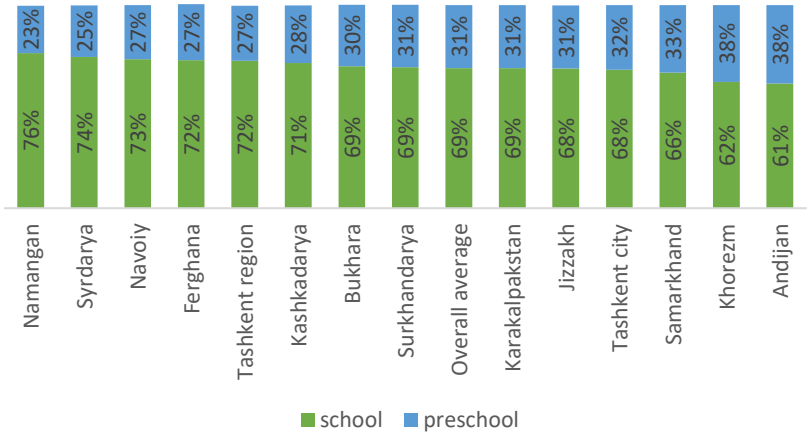


Figure 114. Regional Education expenditure shares by sub-sectors



Expenditures on Preschool education

In terms of current expenditures, the actual allocations for preschool education has increased from 2.95 trillion Uzbek soums in 2018 to 8.64 trillion Uzbek soums in 2022 – an increase of almost 4 times in five years! As a share of GDP, government expenditures on preschool education have increased from 0.69 percent in 2017 to 1.06 percent or above since 2018. It must be noted that the share of capital expenditures has been declining over the years despite the construction and repair activities in preschool education sector. As a share of state's overall budget expenditures, the share of preschool education has been above 4 percent in the last few years, and within education sector budget, expenditures on preschool education has increased from 13 percent in 2017 to around 20-21 percent since 2018.

Figure 115. Preschool Education Expenditure by GOU (in Trillion Uzbek soums): Source: MOPSE

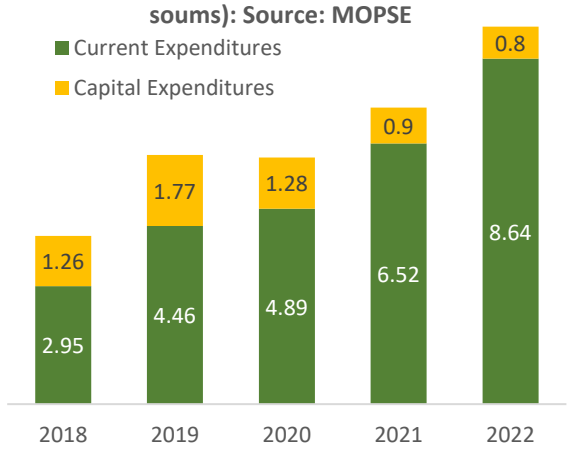
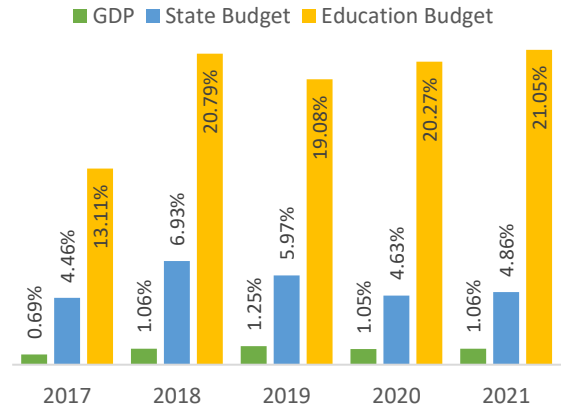


Figure 116. Share of Preschool Education expenditures of GOU in GDP, state budget (Source: MOPSE)



In terms of expenditure categories within preschool education, 55 – 58 percent of preschool expenditures are for salary payments while 15 percent are for preschool children's feeding programmes. Allocations for paying subsidies for preschools operating in PPP mode accounts for 17 percent of all expenditures. Preschool infrastructure and maintenance accounts for 7 percent of the 2022 allocations for the sub-sector.

Figure 117. Category wise expenditures in preschool education of GOU (billion soums)

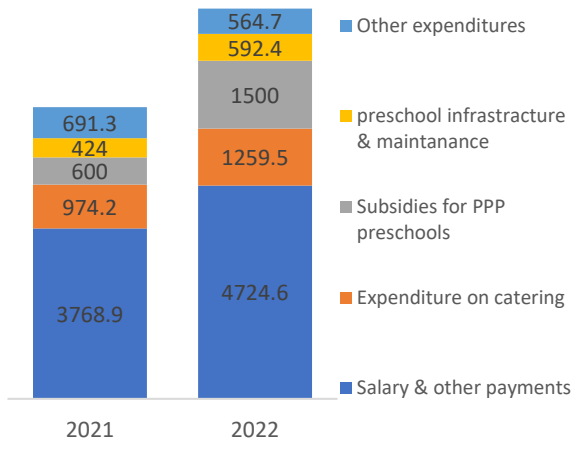
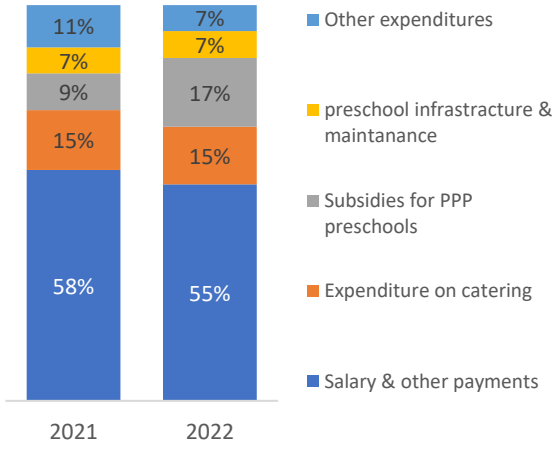
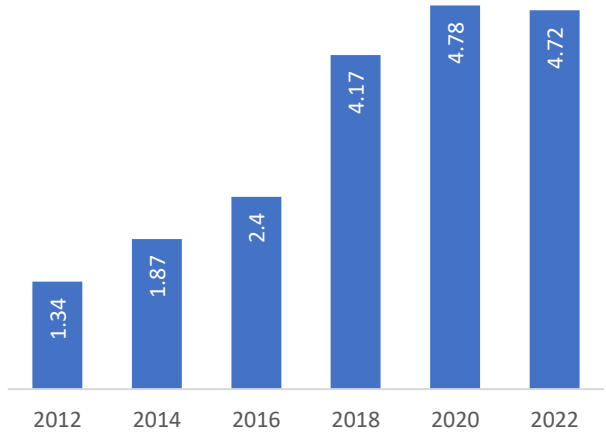


Figure 118. Category wise shares in preschool expenditures of GOU



In terms of per child (enrolled in preschools), GOU has been, on an average spending more than Uzbek soums 4 million since 2018. This is almost double than the amount the government had spent before 2018. It could be noted here that the growth in enrolments in the last four years have been in line with the growing investments in preschool education. World Bank's L2CU survey (for the year 2018-2018) estimated that the households spent on an average, Uzbek soums 818 thousand for preschool children. UNICEF (2020) report estimates that the households' average "out-of-pocket" expenditure on children attending preschool education was around 3.4 million Uzbek soms (USD of around 360-370) in 2019.

Figure 119. Per preschool child expenditure by GOU in million Uzbek soums (current prices)



Government Expenditure in School Education

Government expenditures on basic school education accounted for above 3 percent of GDP as well as around 15 percent of state expenditures since 2018. Expenditure on school education accounted for more than 2/3rds of the overall education expenditures in the last couple of years.

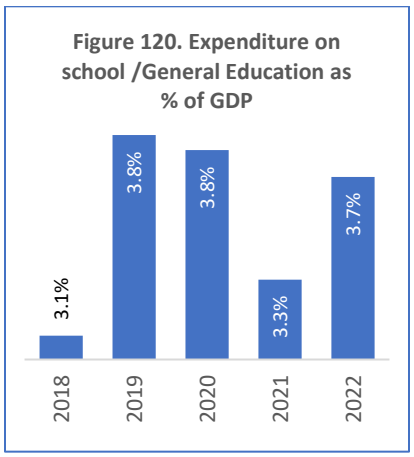


Figure 120. Expenditure on school /General Education as % of GDP

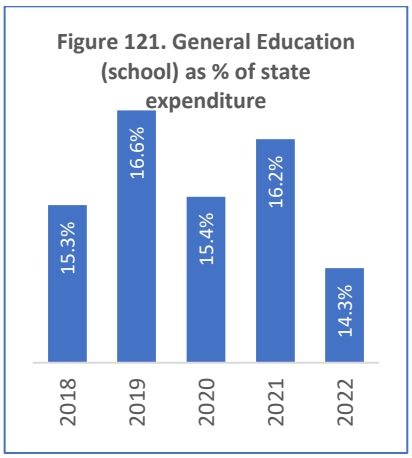


Figure 121. General Education (school) as % of state expenditure

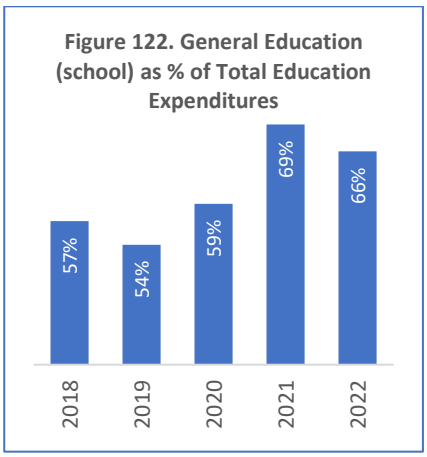


Figure 122. General Education (school) as % of Total Education Expenditures

Expenditure on basic education consists of various items, the most prominent one being the expenditures on salary payments. Salary payments account for more than 80 percent of the expenditures in the sub-sector (83 percent in 2021 and expected to be 89 percent in 2022). Government also spends on school supplies, textbooks, connecting schools to internet etc. In addition, government allocated Uzbek soums to the amount of 2050 billion and 2100 billion respectively for 2021 and 2022 for capital investments in school education.

While the allocations for school education activities in GOU's national budget increased by 2.5 times between 2018 and 2022, the number of students increased by 1.3 times, and hence the per student expenditure in school education has doubled during the same period.

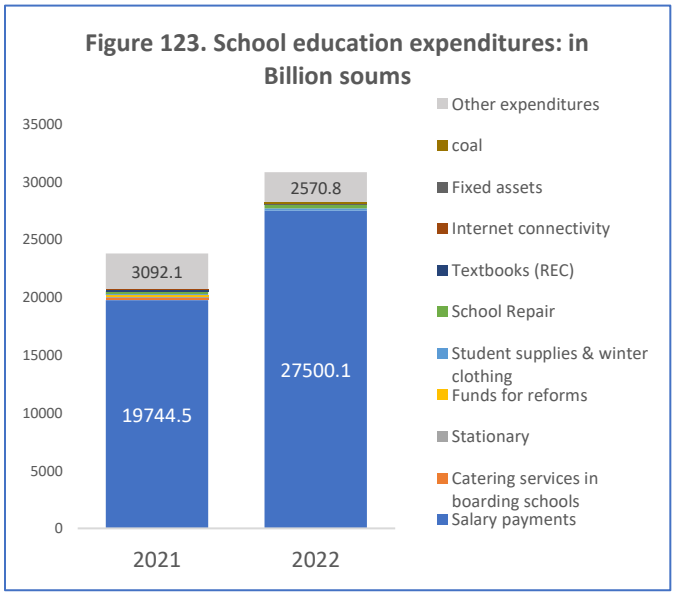


Figure 123. School education expenditures: in Billion soums

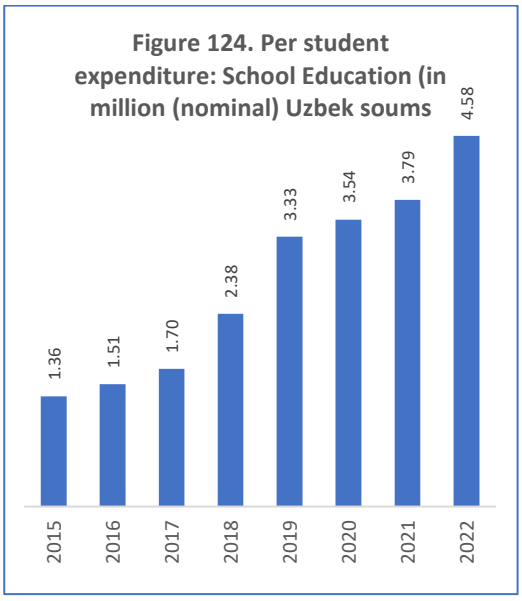
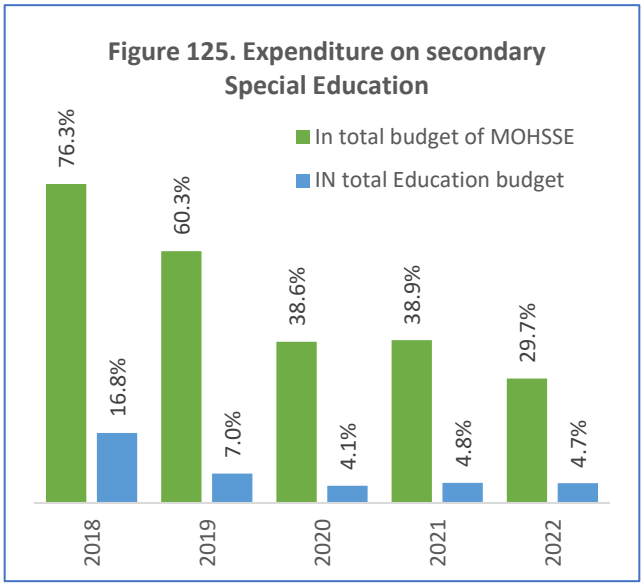


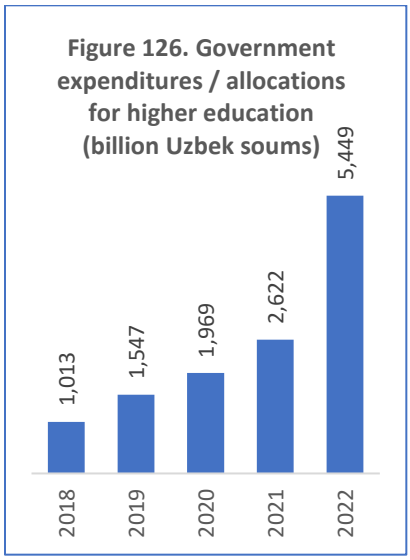
Figure 124. Per student expenditure: School Education (in million (nominal) Uzbek soums

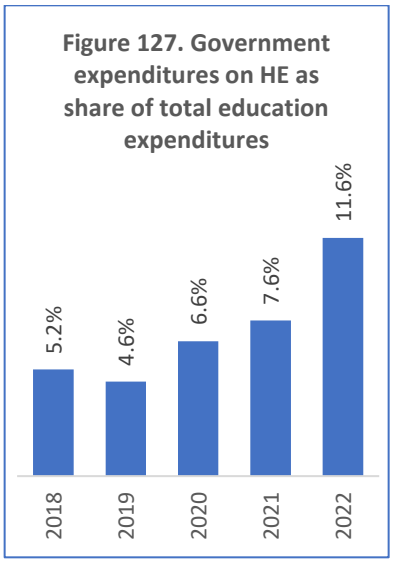
Government Expenditure on Secondary Special Education and Higher Education

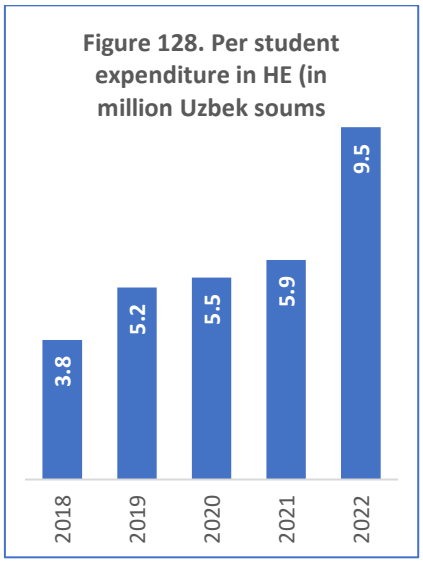
Secondary Special Education: The amount invested in secondary special education in Uzbekistan was 2300 billion Uzbek soums in 2019 but declined to Uzbek soums 1200 billion by 2020. This reduction was mainly on account of the changes in the secondary education stages in Uzbekistan and the subsequent reductions in the enrollments in secondary special education in the country. There have been efforts to revive the government investments in secondary special education sector in 2021 and 2022, with the 2022 allocations for secondary special education amounting to Uzbek soums 2200 billion, but the enhanced allocations do not commensurate with the overall increases in government budgets or increased spending on education in general.



Higher Education: The government has been increasing the investments in HE expansion since 2018. The amount invested in HE has increased by more than 5 times in the last 5 years, the share of HE in total education expenditures have more than doubled and the per student allocation / expenditures have been increasing consistently in recent years.







CHAPTER 8. Key Recommendations for 2022

Preschool Education

Expanding Equitable Access to Preschool Education: The government has achieved tremendous progress in expanding access to preschool education under the MOPSE. However, there are still 1 million more children to be provided with preschool education. Hence MOPSE should continue its work on the expansion of preschool education using its diverse strategies, such as collaborating with private sector under the PPP modality, using alternative models of preschools etc. The MOPSE's biggest advantage is the huge attention that comes from international financial institutions (IFIs) such as the World Bank, Islamic Development Bank etc. as well as several bilateral agencies. The major recommendations in this area are the following:

- Ensure better coordination among the different project implementation units (PIUs) managing diverse investment projects in preschool education to warrant that the expansion strategies of various funding are complementary rather than duplication.
- Ensure that the new preschools that are established under various projects are established in needy locations (remote and rural areas).
- Enhance demand side activities – implementing communication for development (C4D) strategies promoting the various aspects and benefits of ECCE, continuing subsidies for children from marginalized and low-income families, re-invigorating community mobilization and community engagement in preschool activities, etc.

Enhancing safe and enabling teaching-learning environment of preschools: The COVID19 pandemic had highlighted the importance of ensuring safe and hygiene conditions in preschools. In addition, existing /old preschools still suffer from infrastructure / facilities shortage, including availability of toilets, drinking water, heating and cooling systems, provision of preschool feeding systems etc. MOPSE has already been working on many of these issues. Hence, the main recommendations here are as follows:

- MOPSE should develop a detailed work plan and roadmap for improving the infrastructure of preschools which still have gaps in the area of WASH and other facilities.
- There should be a thorough review of the preschool feeding systems to understand the areas for improvement and ways to address the same.
- It is important to introduce concepts related to disaster risk reduction (DRR) and climate change issues in the preschool curriculum and there should be mock exercises to train children early on around safe behavior related to disasters.
- Similarly, it is important to devise programmes to introduce children to child rights and child abuse related issues.

Ensuring the proper implementation of revised preschool curriculum: The preschool curriculum which was developed in 2018 and tested in preschools during 2019-2021 has recently gone through a review and revision. MOPSE needs to ensure that the revised curriculum is made available to all preschools and preschool staff are trained on the implementation of the same. For this, MOPSE should do the following:

- Provide all preschools with the latest curriculum and related guidebooks.
- Organize training programmes either through cascade mode or through online /video courses for preschool teachers on the implementation of the revised curriculum.
- Use quality assurance mechanisms to assess the implementation of the new curriculum in preschools
- Use the adapted MELQO measures to understand the preparation of children for schools through the implementation of new curriculum.

Improving teachers' professional development opportunities: The quality of preschool education depends on the quality of its 134,641 staff. Building their capacity, especially those 70 percent teachers who do not have higher education qualification is very important. The sub-sector also would require at least 50,000 more preschool teachers in the near future and hence needs to prepare young people through pre-service training for future employment. Hence MOPSE should do the following:

- Update the preschool teachers' training programme to reflect the revised curriculum.
- Organize preschool teachers' in-service training either through face-to-face, cascade mode or through online or video lessons, or through a blended approach.
- Review and revise pre-service training programme for preschool professionals, including curriculum, pedagogy and assessment mechanisms.
- Implement teacher professional standards and assessment mechanisms in preschool education to strategize teacher professional development.

Enhancing the quality assurance and data management: There are two streams of activities that have gone through initial stages of development and implementation that are crucial for evidence-based planning and management: the EMIS and Quality Assurance Systems. MOPSE needs to do the following in the coming days:

- Speed up the upgrading of the EMIS system and ensure that the data collection tools have all the necessary questions to collect relevant data on various aspects of preschool education
- Ensure that the preschool staff are trained professionally to provide the data in the required format and quality.
- Train and build the capacity of relevant staff at the national (MOPSE), regional and sub-district departments of the MOPSE to do quality analysis and generation of evidence.
- Similarly, train the preschool staff and other relevant staff at various levels to collect and analyze data using the Quality Assurance systems for understanding quality processes related to preschool education.

Improving overall governance and management of preschool education: In the last few years, the preschool education sector has gone through several reforms, many of which are captured through the legal and policy documents. However, there are several areas where the MOPSE could develop strategies to improve governance and management:

- Capacity building of MOPSE staff, staff at regional and district departments as well as preschool managers on the management of various aspects of preschool education.
- It is important to have the key staff in MOPSE trained in public expenditure analysis as well as the analysis of public expenditure tracking and value for money.
- Encouraging greater participation of community in preschool management, particularly the minor repairs, activities etc.

School Education

Internal efficiency of School Education: While it is commendable that there are near universal enrollments into grade 1, it is important to have more details about school efficiency parameters. At present, limited data is available on out-of-school children, grade/class repetition or dropout rates. Hence the MOPE should do the following:

- Institutionalize a mechanism to collect data on out-of-school children (OOSC) and adolescents (including dropouts) and track them systematically to ensure they go back to school and complete the mandatory stages of education.

- Strengthen EMIS to collect information on the repetition rates and dropouts to inform schools to come up with plans for the OOSC returns to school.

Inclusive Education (IE): Though MOPE has introduced IE on a pilot basis in selected schools in the country, there is still no proper strategy to implement IE in the country. MOPE should do the following to strengthen IE implementation:

- Develop a proper roadmap to address the several physical barriers in the schools for CWD – for example, collect data from schools on the infrastructure issues such as availability of ramps, disable friendly toilets etc. in schools and develop plans to equip schools with barrier free access.
- Develop a comprehensive training programme for teachers to implement IE in schools and develop the capacity of teachers through repeated training
- Develop and implement a comprehensive school level plans to work with the community and implement communication strategies to raise awareness among the community on IE.

Safe and enabling environment in schools: Uzbekistan is a country prone to natural disaster risks. COVID19 pandemic exposed the deficiencies in school WASH, and UNICEF (2019) study revealed that more than a third of children go through bullying in schools that affect their learning and performance. Considering all these, MOPE should do the following:

- Implement emergency preparedness measures in schools, including training of teachers and students on safety measures in the event of any disasters
- Develop and implement measures for enhancing school WASH programmes, including the provision of adequate number of single-sex toilets, water supply and hygiene measures
- Develop and implement measures for schools to ensure heating and cooling facilities in schools
- Develop and implement measures for preventing bullying and violence in schools and train the school authorities and teachers on the proper implementation of the same.

Curricular reforms: Uzbekistan is currently reviewing and revising grade and subject wise curriculum to reflect a competency-based approach. Revised curriculum and textbooks for grades 1-2 are already being implanted, and the same for grade 3 will be introduced in 2022. To support ongoing curricular reforms, the following are recommended:

- Continue the state-led (REC, with technical support from UNICEF) review and revision of curriculum and preparation of textbooks for core subjects as per the plan.
- Work with experts from developmental agencies in the provision of alternative or multiple textbooks for schools
- Develop and implement pedagogic reforms, including the introduction/implementation of alternative pathways (such as distance learning, video lessons, use of ICT etc.)
- Revise and implement classroom assessments to be more formative and informative, and for implementing the same, train and build capacity of teachers
- Develop a roadmap for revising and implementing a nation-wide standardized school certifying examination at the end of secondary education
- Develop a roadmap for institutionalizing national learning assessment systems

Teacher Professional Development: The framework teacher professional standards and assessment mechanisms are currently available. And moving forward, in the next few years, the government should focus on:

- Implement the TPS and TAS and improve the process of teacher professional development.
- Develop and implement training programmes for teachers to implement the new competency-based curriculum and assessment.

- Apart from the curriculum and competency-based training, train teachers on remedial education / catch up programmes, designed as part of the COVID19 school re-opening measures and as a mechanism for speeding up the efforts for learning recovery among children.
- Apart from face-to-face cascade mode training, institutionalize the on-line teacher training programmes which were initiated during the COVID19 pandemic times.
- Review the pre-service curriculum and revise it to reflect the revised school curriculum and instructional approach.
- Develop teacher cluster centers for enhancing teachers' networking and peer support in teaching learning processes.

Learning Assessment: As of now, while the government has a major focus on preparing for the participation in PISA 2022, and in other international assessments, there has been efforts to improve classroom assessments, examinations as well as national assessments. In order to enhance the assessment systems for generating relevant evidences to inform quality reforms in the sector, the government may do the following as suggested in the GPE's Analysis of National Learning Assessment Systems (ANLAS):

Context

- Government should develop a policy and legislation to support and regularize national assessment system (NAS) as well as participation in international assessments
- At present, institutional arrangements and governance structures are mainly established for PISA, but there should be institutional arrangements and structures established for conducting national assessments as well.
- The government should devote a part of its education budgets (or add extra funding) for conducting national learning assessments on a regular manner

Coherence

- While participating in international assessments help the country to benchmark learning levels of the children in the country in an international context, national assessments should be established to ensure that there is a way to measure learning standards and national curriculum at desirable education levels (primary / secondary etc.).
- Capacity building is important to ensure that the data collected through national assessments are sued for system-level reforms.
- **Classroom Assessments:** As of now, guidelines are developed for classroom formative and summative assessments as part of the curricular reforms and the development of new textbooks and hence mainly happening in grades where the curricular reforms are progressing. It is important to develop general guidelines for classroom assessments for other grades, while curricular reforms are still under process.
- **Large scale assessments:** For national assessments, in the coming year, the government should finalize the assessment framework, develop an institutional structure and a dedicated team and resources with full capacity, work towards developing assessment instruments, and conducting assessment studies in a periodic manner.

Enhancing the quality assurance and data management: As in the case of preschool education, the EMIS and Quality assurance systems are also in the initial stages of implementation in the country. MOPE needs to do the following in the coming days:

- Develop and enhance the EMIS system so that data from schools can be collected in a comprehensive manner
- Ensure that the school management are trained professionally to provide the data in the required format and quality.
- Train and build the capacity of relevant staff at the national (MOPE), regional and sub-district departments of the MOSE to do quality analysis and generation of evidence.
- Similarly, train the school staff and other relevant staff at various levels to collect and analyze data using the Quality Assurance systems for understanding quality processes related to school education.

Improving overall governance and management of school education: The MOPE and staff at various levels (regional, district and school) needs further capacity for enhanced school management and accountability. For this, the government may need to carry out the following:

- Capacity building of MOPE staff, staff at regional and district departments as well as preschool managers on the management of various aspects of school education.
- It is important to have the key staff in MOPE trained in public expenditure analysis as well as the analysis of public expenditure tracking and value for money.
- Encouraging greater participation of community in school management, particularly the minor repairs, activities etc.

Higher Education

While government is trying to enhance access to higher education through expanding the higher education provision, including inviting foreign universities to establish campuses in Uzbekistan, the government needs to do the following:

- Enhance the courses available in STEM subjects
- Make entrance exams more competency-based than knowledge-based
- Review the curriculum and revise the various relevant subjects and topics
- Enhance the provision for Massive Open Online Courses (MOOC) on relevant topics

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