

Document of
The World Bank
FOR OFFICIAL USE ONLY

Report No: ICR00004818

IMPLEMENTATION COMPLETION AND RESULTS REPORT

TF #018066

ON A

GRANT

IN THE AMOUNT OF US\$49.9 MILLION

TO THE

REPUBLIC OF UZBEKISTAN

FOR THE

IMPROVING PRE-PRIMARY AND GENERAL SECONDARY EDUCATION PROJECT

June 25, 2020

Education Global Practice
Europe And Central Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective Mar 12, 2020)

Currency Unit = Uzbekistan Sum (UZS)

9,526.27 Sum = US\$1

US\$ 0.00011 = 1 Sum

FISCAL YEAR

January 1 – December 31

Regional Vice President: Anna M. Bjerde

Country Director: Lilia Burunciuc

Regional Director: Fadia M. Saadah

Practice Manager: Harry Anthony Patrinos

Task Team Leader(s): Janssen Edelweiss Nunes Teixeira

ICR Main Contributor: James Gresham, Sharanya Vasudevan

ABBREVIATIONS AND ACRONYMS

BEP	Basic Education Project
CPF	Country Partnership Framework
ECA	Europe and Central Asia
ECCE	Early Childhood Care and Education
ECD	Early Childhood Development
ESP	Education Sector Plan
FBM	Feedback Mechanism
GDP	Gross Domestic Product
GoU	Government of Uzbekistan
GPE	Global Partnership for Education
ICB	International Competitive Biddings
ICR	Implementation Completion and Results Report
ICT	Information and Communications Technology
ILO	International Labor Organization
INSET	In Service Education and Training
ISR	Implementation Status and Results Report
M&E	Monitoring and Evaluation
MELE	Measuring Early Learning Environments
MICS	Multiple Indicator Cluster Survey
MOPE	Ministry of Public Education
MPSE	Ministry of Preschool Education
OECD	Organization for Economic Cooperation and Development
PAD	Project Appraisal Document
PDO	Project Development Objective
PISA	Programme for International Student Assessment
PMT	Project Management Team
TLM	Teaching and Learning Materials
TOR	Terms of Reference
TPM	Third Party Monitoring
TTL	Task Team Leader
WB	World Bank

TABLE OF CONTENTS

DATA SHEET	ERROR! BOOKMARK NOT DEFINED.
I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES.....	5
A. CONTEXT AT APPRAISAL	5
B. SIGNIFICANT CHANGES DURING IMPLEMENTATION	11
II. OUTCOME	13
A. RELEVANCE OF PDOs	13
B. ACHIEVEMENT OF PDOs (EFFICACY)	14
C. EFFICIENCY	20
D. JUSTIFICATION OF OVERALL OUTCOME RATING	22
E. OTHER OUTCOMES AND IMPACTS (IF ANY).....	22
III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME.....	25
A. KEY FACTORS DURING PREPARATION	25
B. KEY FACTORS DURING IMPLEMENTATION	26
IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME ..	27
A. QUALITY OF MONITORING AND EVALUATION (M&E)	27
B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE.....	28
C. BANK PERFORMANCE	29
D. RISK TO DEVELOPMENT OUTCOME	30
V. LESSONS AND RECOMMENDATIONS	30
ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS.....	33
ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION.....	48
ANNEX 3. PROJECT COST BY COMPONENT	51
ANNEX 4. EFFICIENCY ANALYSIS.....	52
ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS ...	57
ANNEX 6. SUPPORTING DOCUMENTS	58
MAP.....	60



DATA SHEET

BASIC INFORMATION

Product Information

Project ID	Project Name
P144856	Improving Pre-primary and General Secondary Education Project
Country	Financing Instrument
Uzbekistan	Investment Project Financing
Original EA Category	Revised EA Category
Not Required (C)	Not Required (C)

Organizations

Borrower	Implementing Agency
Republic of Uzbekistan	Ministry of Public Education

Project Development Objective (PDO)

Original PDO

The Project Development Objectives (PDO) are to increase access of children aged 3-6 to quality early childhood care and education in rural pre-primary institutions and to improve conditions for better learning outcomes of students of rural general educational secondary schools.

**FINANCING**

	Original Amount (US\$)	Revised Amount (US\$)	Actual Disbursed (US\$)
World Bank Financing			
TF-18066	49,900,000	49,900,000	49,338,583
Total	49,900,000	49,900,000	49,338,583
Non-World Bank Financing			
Borrower/Recipient	0	0	0
Total	0	0	0
Total Project Cost	49,900,000	49,900,000	49,338,583

KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
23-Oct-2014	26-Jan-2015	28-Aug-2017	31-Jan-2018	31-Dec-2019

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US\$M)	Key Revisions
09-Sep-2016	22.48	Change in Results Framework Change in Components and Cost Change in Loan Closing Date(s) Change in Implementation Schedule
26-Mar-2019	42.56	Reallocation between Disbursement Categories
25-Jul-2019	47.09	Change in Loan Closing Date(s)

KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Satisfactory	Modest



RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US\$M)
01	01-Apr-2015	Satisfactory	Satisfactory	.20
02	11-Dec-2015	Satisfactory	Moderately Satisfactory	2.33
03	16-Jun-2016	Satisfactory	Moderately Satisfactory	20.29
04	25-Oct-2016	Satisfactory	Moderately Satisfactory	23.28
05	15-Jun-2017	Satisfactory	Moderately Satisfactory	28.79
06	06-Oct-2017	Satisfactory	Satisfactory	29.51
07	14-Jun-2018	Satisfactory	Moderately Satisfactory	41.64
08	15-Jan-2019	Moderately Satisfactory	Moderately Satisfactory	42.10
09	23-Jul-2019	Moderately Satisfactory	Satisfactory	47.09

SECTORS AND THEMES

Sectors

Major Sector/Sector (%)

Education 100

Early Childhood Education 42

Public Administration - Education 6

Secondary Education 52

Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3) (%)

Human Development and Gender 100

Education 100

Access to Education 50

Education Financing 50



ADM STAFF

Role	At Approval	At ICR
Regional Vice President:	Laura Tuck	Anna M. Bjerde
Country Director:	Saroj Kumar Jha	Lilia Burunciuc
Director:	Alberto Rodriguez	Fadia M. Saadah
Practice Manager:	Mario Cristian Aedo Inostroza	Harry Anthony Patrinos
Task Team Leader(s):	Janssen Edelweiss Nunes Teixeira	Janssen Edelweiss Nunes Teixeira
ICR Contributing Author:		James Gresham



I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL

Context

- 1. Uzbekistan is a lower middle-income country located in Central Asia with growth that has averaged 8 percent annually since the mid-2000s.** Uzbekistan's economic strategy emphasizes the maintenance of basic public services, including heavy investments in education. The Law on Education N-464-I proclaims education as a priority of the state and guarantees equal rights to education for all. To achieve high levels of access, the Government of Uzbekistan (GoU) increased public expenditure on education from 5.6 percent of GDP in the mid-1990s to 10 percent of GDP in 2010, dedicating an estimated 35 percent of the total annual budget to education, in 2012. While this level of spending has since fallen somewhat (7.4 percent in 2018), it remains high compared to the Organisation for Economic Cooperation and Development (OECD) average of 5 percent.
- 2. In 2012, early childhood care and education (ECCE) enrolment was 23 percent, low by international standards, and only 8.5 percent in rural areas.** If learning quality and outcomes are to be improved across the education system, access to high quality pre-primary school was needed to ensure children arrive to general educational secondary schools ready to learn and succeed. Of those who attended ECCE, the vast majority of children were enrolled in full-day kindergarten and childcare facilities, particularly in urban areas. Traditionally, these facilities provided services with more of an emphasis on childcare, rather than the promotion of child development and early learning opportunities.
- 3. In rural areas outside rayon centers, particularly for less advantaged families, low enrolment was driven by both limited supply and low demand.** As of 2006, only 5 percent of children from Uzbekistan's less advantaged families (lowest income quintile) were enrolled in preschools. This was especially low compared to the 46 percent enrolment of children from the country's wealthiest families (highest income quintile) according to the Multiple Indicator Cluster Survey (MICS) data. This indicated that greater efforts were needed to promote access for children from the lower income families. As of 2010, for every 100 preschool seats available, just 78 children were enrolled, indicating that the number of available seats in preschools exceeded enrolment levels by 22 percent – and the trend has been consistent for the last decade. This means that there were extra classrooms in many existing pre-primary schools, especially in rural areas where quality of pre-primary centers was weak and families were less able to afford the fees. Only 34 percent of facilities nationwide (and 14 percent in rural areas) were rated as 'fully equipped' which negatively affected parents' demand for preschool. At the same time, preschools charged fees per child that were equal to 100 percent of the minimum wage, which meant that many poor families were unable to afford enrolment. Increasing enrolment in rural areas required a more flexible approach that would address families' demand-side constraints while also significantly expanding the supply.
- 4. The GoU committed significant resources to children's early learning, but the model used for provision of pre-primary education limited enrolment due to high costs, limited flexibility, and low supply in rural areas.** Comprehensive mechanisms to promote the quality of ECCE in Uzbekistan existed at the time of appraisal, but these mechanisms were not adequate to ensure quality or convince parents of the benefits of enrolling their children in ECCE.



5. **Access to basic education (known as “general secondary education” in Uzbekistan) during project appraisal was nearly universal. However, learning outcomes and the quality of education varied by region.** General secondary education in Uzbekistan covers two cycles, analogous to primary education in grades 1-4 for children aged 7-10, and lower secondary education for grades 5-9 (or 5-11) for children aged 11-15 (or 11-17). General secondary education schools cover both cycles.¹ When the project started, beneficiary schools located in rural areas outside rayon centers fared worse in most aspects, as compared to urban schools. The availability of teaching and learning materials, status of infrastructure and student outcomes were all lower in more remote areas (e.g. schools located 20+ kilometres from rayon centers). Only 37 percent of remote rural schools (across regions) had sufficient number of teaching materials as compared to the 64 percent in urban areas.

6. **Poor learning conditions in general secondary education schools hindered improvements in student learning.** Such conditions included: (i) insufficient and outdated equipment and learning resources; (ii) lack of teachers’ professional competence to promote the active engagement of students in their own learning; (iii) lack of quality data for monitoring and evaluation; (iv) mobilization of sector employees (and, in the past, students) to pick cotton at the start of the academic year; and (v) limited community and stakeholder participation to encourage accountability. In Uzbekistan, the concept of minimum school standards includes requirements for teaching and learning material, ICT equipment, furniture and school infrastructure.

7. **While the use of information and communication technologies (ICT) in the education process had increased, there was scope for further expansion.** The Center for Development of Multimedia Educational Programs under the Ministry of Public Education (MoPE) had developed and introduced 119 e-materials, 40 virtual labs, 113 multimedia resources and 1,074 information and resource centers.

8. **The previous Basic Education Project Phase 2 (2009-2014) funded by the World Bank had financed activities to strengthen the students’ assessment system of Uzbekistan.** Two rounds of standardized students’ assessments in Mathematics and native language for grade 4 were conducted. However, the results of these assessments had not been made available to the general public yet, which reflected the low level of accountability of the system. The GoU did not participate in any international student assessment but was considering the initiative. These weaknesses made planning and decision-making more difficult in Uzbekistan.

9. **At the time of appraisal, the GoU intended to revise its In Service Education and Training (INSET) system and programs to make it more flexible in meeting the training needs of the educational personnel, including teachers, methodologists and heads of the education institutions.** Short-term planned activities to improve INSET included revision of the state requirements, upgrading the programs based on the increasing needs and modern international trends and best practices in the teaching area, improving planning of the courses and capacity building of the institutional staff. In regard to teacher training, as per regulation during the time of project appraisal, teachers in Uzbekistan should take at least 144 hours of professional development courses every five years in a regional INSET institution, and principals should take at least 144 hours of courses every three years in the Avloniy Central Institute. In addition, the INSET system offered short-term courses in different areas, depending on the schools’ demand. The training courses were reported to take into account the results of the student learning monitoring conducted by MoPE on a regular basis, as well as the INSET training programs assessment conducted by the State Testing Center. The average annual capacity of all INSET

¹ After general secondary education, students can enter secondary specialized vocational education in academic lyceums or vocational colleges. Both alternatives can lead students to higher education. At the inception of this project, Uzbekistan’s education system comprised of 15,774 educational institutions including 9,763 general educational secondary schools with 4.5 million students and 410,613 teachers for the entire system.



institutions was to train around 110,000 educational workers, including 4,000 educational staff from pre-primary schools. Between the formal courses, in their schools, teachers were to be supported by the heads of the methodological units and more experienced teachers, which, in turn were supported by district methodologists.²

10. **Other important elements of learning conditions had also been funded previously under the Basic Education Project (BEP) or were being supported by other donors.** For example, the BEP financed textbooks, and a large program of support from the Asian Development Bank also financed a textbook development program. Based on the support already being provided, and the gaps identified above, the project's definition of "conditions for better learning outcomes" included three key elements: ICT, teacher professional development, and student assessment results as feedback on learning outcomes.

Rationale for World Bank Support

11. **There were many public, economic and financial benefits that justified the Bank's engagement in this operation at the time of approval.** For ECCE, the project's interventions in rural areas aimed to enhance equity in society by compensating for early learning gaps due to family differences, as the poor are more likely to live in rural areas. In addition, activities aimed to generate externalities associated with ECCE, including increased female participation in the labor force and a healthier, more productive workforce. Lastly, given these benefits and others, privately provided ECCE is often too expensive for many families. In cases where the market does not provide a good with benefits to society at an affordable price, government support was necessary.

12. **Additionally, the half-day model of ECCE supported by the project was expected to be more cost-effective than the typical full day program in use in Uzbekistan at the time.** Cost savings from the half-day model included US\$3.6 million to the government and US\$10.4 million to parents over three years. The project aimed to increase the national budget for ECCE by about 1.7 percent each year, hence allowing for an increase of at least 21 percent of spending on children in the half-day model. The investment would represent a significant increase to the amount allocated to non-wage current expenditure for Teaching and Learning Materials (TLM) and other learning resources that is often squeezed out by teacher salaries and capital expenditure.

13. **Similar benefits justified the Bank's involvement in basic (general secondary) education.** Quality basic education is essential to establish a foundation for future learning, as skills and content learned in lower grades enable learning in higher grades. As Uzbekistan had nearly achieved universal enrolment and reached gender parity in general secondary education, improvements in the quality of learning were the priority. Social returns to basic education were the highest of any level of education after pre-primary education, which means that education at the basic level was expected to generate more benefits for society than investments in education at higher levels. Given the Bank's involvement under the previous Bank-funded projects, as well as complementarity with other ongoing donor-funded programs, the Global Partnership for Education (GPE) project focused on three critical conditions closely linked to student learning: the availability of learning resources, highly trained teachers, and use of student assessments results. The project aimed to contribute an additional 20 percent spent per student in selected schools, thereby improving quality of learning and ultimately human capital. In addition, the project aimed to increase equity in learning conditions in Uzbekistan by providing resources to schools in rural areas where the poor are more likely to live.

14. **Finally, the project was also aligned with the Uzbekistan Country Partnership Framework (CPF) FY12-15 (Report No. 65028-UZ),** which identified improving access to, and outcomes of, social services as a key priority and results

² Throughout this document, "region" refers to *oblasts* and "district" refers to *rayons*.



area. Under this pillar, the CPF committed to supporting the government's objective to reduce regional and rural-urban inequities through promoting social inclusion and human capital development. Strengthening the quality of education services was an explicit objective.

Theory of Change (Results Chain)

15. **International evidence shows that foundational skills acquired through early learning and basic education are critical for human capital development and economic competitiveness over the long-term.** Research from around the world has demonstrated that early learning interventions aimed at developing cognitive, physical, behavioral, and language skills helps promote greater school readiness and equality when children enter basic education. It also suggests that targeted ECCE programs particularly benefit the most disadvantaged children, helping to close gaps in achievement for disadvantaged groups. Additionally, improving the quality of basic education depends on sufficient capacity at the school level to deliver high-quality instruction, including sufficient equipment and learning resources, competent and motivated teachers to promote active student engagement, and quality data for monitoring and evaluation.

16. **The project's Theory of Change involved two parts: (i) addressing supply- and demand-side constraints to ECCE enrollment would lead to greater participation of young children in early learning opportunities; and (ii) addressing capacity and resource constraints at the school level would lead to improved conditions for better learning outcomes in general secondary educational schools.** Through both components of the project and its focus on low-income rural and remote areas of Uzbekistan, the project was expected to benefit those students for whom socioeconomic disadvantages represented major constraints to school attendance and learning achievement. This theory of change and explicit pro-equity design positioned the project to contribute over the long-term to Uzbekistan's pro-poor Welfare Improvement Strategy (2013-2015), Uzbekistan's Education Sector Plan (2013-2017) and to the World Bank's twin goals of ending extreme poverty and boosting shared prosperity.

17. **The objective of "increased access of children aged 3-6 to quality ECCE in rural pre-primary institutions" was to be achieved through the half-day ECCE school readiness model and early literacy promotion activities targeting families with children aged 3-6 years living in remote areas.** These activities were designed to address major demand- and supply-side constraints to ECCE access while taking advantage of strong parental support for early learning in Uzbekistan.³ The half-day model addressed the high household cost of the full-day preschool model which was a barrier to many families, since fees of the full-day model were equivalent to 100% of the minimum wage in Uzbekistan at the time. Expanding half-day programs in rural areas would address distance constraints, and significant investments in learning materials, storybooks, equipment, furniture, and teacher training would improve parental perception of quality for center-based ECCE. Additionally, the early reading program would provide children in remote areas (who could not attend the half-day program) with age-appropriate storybooks and materials, as well as training and communication for parents to support their children's early reading at home while further building ECCE demand among rural households.

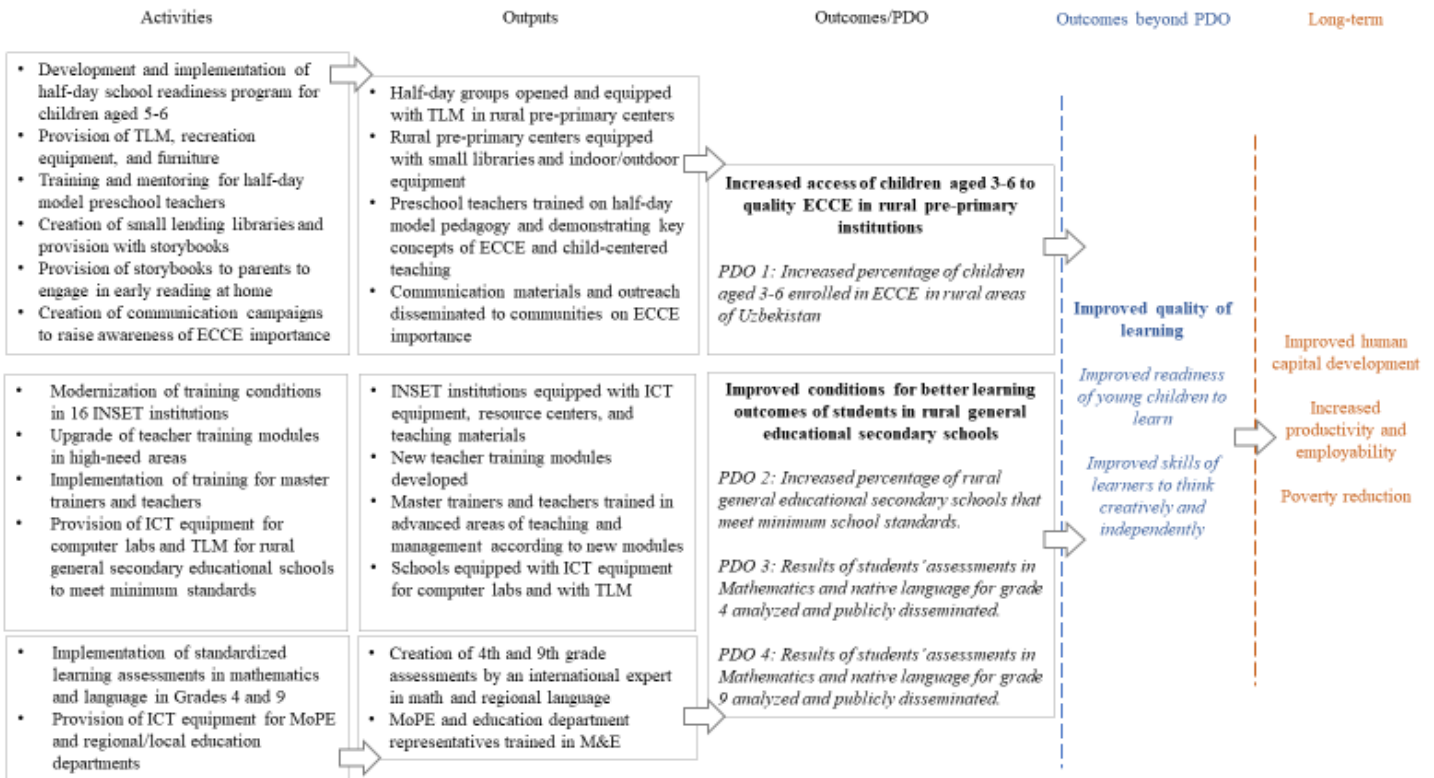
18. **The objective of "improved conditions for better learning outcomes of students of rural general educational secondary schools" was to be achieved through improved training systems for teachers and school managers, increased availability of adequate equipment and TLM, and improved capacity to monitor the education system.** These activities were designed to address deficiencies in school learning conditions related to minimum school standards on ICT equipment and resources, teacher competencies, and information availability on student learning outcomes. The project's theory of change was that better learning outcomes would only be achievable with an integrated approach to

³ MICS data indicated high levels of parental support for early learning (measured by parenting activities in the home), regardless of income level or geographic location of families.



improving school learning conditions. By providing teachers and school managers with training on ICT, pedagogical techniques, and student learning assessments, the project envisioned that teachers and managers would have improved capabilities and competencies, ability to use ICT equipment for planning and instructional purposes, and access to information on student learning outcomes which could be used for purposes of school improvement and accountability.

Figure 1. Theory of Change: Uzbekistan Improving Pre-Primary and General Secondary Education Project



Note: TLM = Teaching and Learning Materials; ECCE = Early Childhood Care and Education; INSET = in-service education and training; ICT = information and communication technologies; M&E = monitoring and evaluation

Project Development Objectives (PDOs)

19. As stated in the legal agreement, the Project Development Objective was to: (i) increase access of children aged 3-6 to quality early childhood care and education in rural pre-primary institutions; and (ii) to improve conditions for better learning outcomes of students in rural General Educational Secondary Schools.

Key Expected Outcomes and Outcome Indicators

20. The achievement of the PDO was measured by the following key indicators:

- (a) Increased access of children aged 3-6 to quality early childhood care and education in rural pre-primary institutions, as measured by:
 - *PDO 1*: Increased percentage of children aged 3-6 enrolled in ECCE in rural areas of Uzbekistan.
- (b) Improved conditions for better learning outcomes of students of rural General Educational Secondary Schools, as measured by:



- *PDO 2*: Increased percentage of rural general educational secondary schools that meet minimum school standards.
- *PDO 3*: Results of students' assessments in Mathematics and native language for grade 4 analyzed and publicly disseminated.
- *PDO 4*: Results of students' assessments in Mathematics and native language for grade 9 analyzed and publicly disseminated.

Components

21. The project consisted of three components. Component 1 focused on improving access to early childhood education services in rural and remote areas. Component 2 focused on general secondary education schools in rural areas and improving conditions such as teacher training and increasing access to various teaching and learning materials. Component 3 focused on increasing the existing capacity of education quality monitoring. A summary of each component is given below.

22. **Component 1: Improving Access to Quality Early Childhood Education Opportunities (estimated US\$20.7 million; actual US\$21.76 million).** The objective of this component was to increase access to early learning opportunities and quality pre-primary education in rural and remote areas of Uzbekistan by supporting the development and implementation of more flexible and efficient models of service provision. This component included two subcomponents:

- **Development and assessment of flexible forms of early childhood care and education service provision.** The project financed the design of the half-day year-round school readiness program along with communication campaigns to raise awareness of: (i) ECCE for children's development, (ii) parents' critical role in promoting early learning, and (iii) child and forced labor issues and regulations and the associated feedback mechanisms.
- **Implementation of quality ECCE opportunities** through provision of the half-day school readiness program targeting children aged 5-6 in rural areas (and children aged 3-6 broadly), nationwide distribution of storybooks to parents of young children living in remote areas to engage in early reading at home, and training and on-going mentoring of preschool teachers.

23. **Component 2: Improving Conditions for Better Learning Outcomes in General Educational Secondary Schools (estimated US\$23.12; actual US\$21.29 million).** The objective of this component was to improve conditions for better learning outcomes in rural general educational secondary schools by improving the training system for teachers and school managers and increasing the availability of adequate equipment and TLMs. This component included two subcomponents:

- **Improving conditions of training and retraining institutes for teachers and school personnel** through development of a training management information system and teaching materials, provision of ICT and equipment for training in 16 INSET institutions, and preparation and delivery of specific training programs and modules in high-demand areas such as management, pedagogical techniques/methodology, ICT, distance education, inclusive education, foreign language teaching and labor protection and awareness regarding child and forced labor.
- **Implementation of minimum learning standards for General Educational Secondary Schools** through the provision of ICT equipment for computer labs and other related teaching and learning materials for secondary schools in rural areas of Uzbekistan.



24. **Component 3: Strengthening the Capacity to Monitor the Education System (estimated US\$6.08; actual US\$5.31).** The objective of this component was to support the strengthening of existing capacity to monitor education quality and the education system through support to improve existing management information systems and learning assessments. This component included two subcomponents:

- **Improving monitoring capacity** through the development and carrying out of standardized sample-based student learning assessments in grades 4 and 9 in mathematics and native language; the analysis and dissemination of said assessments' results; improvement of MoPE's management information systems and capacity on education quality monitoring; and provision of ICT equipment to MoPE and all 14 regional education departments.
- **Project management** and support for implementation of project-financed activities, including operating costs, monitoring and evaluation (M&E), and audits.

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION

Revised PDOs and Outcome Targets

25. **The PDO was not revised during the project, and neither were the key PDO indicators.** However, outcome targets for PDO and intermediate outcome indicators were revised as part of a significant restructuring in 2016, increasing the scope and ambition of the project. In 2015, nearly 30 percent of project funds (US\$14.7 million) became available for reallocation following successful completion of several procurement processes which yielded substantial savings. This amount of savings was primarily the result of (i) changes in technical specifications of high-value procurement packages related to ICT equipment and furniture for implementation of minimum school standards in general educational secondary schools and the half-day model of ECCE; (ii) exchange rate variation; and (iii) discounts offered by bidders submitting winning proposals in International Competitive Biddings (ICB). The reallocation of savings, approved as part of the 2016 restructuring, allowed for an increase in the coverage of key project-financed activities, namely the implementation of the half-day model of ECCE and the early reading program under Component 1, and the minimum school standards for general educational secondary schools under Component 2. As a result, outcome targets were revised to reflect the expanded coverage. The target for PDO 1 (percentage of children aged 3-6 enrolled in ECCE in rural areas of Uzbekistan) was increased from 13.1 percent to 15 percent. The target for PDO 2 (percentage of rural general educational secondary schools that meet minimum school standards) was increased from 61.4 percent to 63 percent.

Revised PDO Indicators

26. The PDO indicators were not changed during the project duration, although the targets were increased for two indicators as described above. Other changes to the Results Framework are described below.

Revised Components

27. Project components were modified during implementation, though primarily to expand the coverage and scope of project components. The revisions to each project component are described below.

28. **Component 1** was revised to expand the ECCE program and increase coverage by an additional 1,200 rural pre-primary education centers to benefit from implementation of the half-day model and early reading program. This change increased the number of project-supported pre-primary centers from 1,220 centers (47 percent of all rural pre-primary centers at the time of project approval) to 2,420 centers (92 percent of all rural pre-primary centers in Uzbekistan as of



2016 when the Restructuring #1 was approved). Additionally, this Restructuring expanded the early reading program by implementing small libraries in these additional 1,200 rural pre-primary centers and benefiting an additional 153,000 parents of young children not enrolled in ECCE and living in remote areas through the provision of storybooks. An additional 2,000 preschool teachers were trained on the half-day model. The Restructuring #1 also included a new technical assistance activity related to the analysis and improvement of state educational standards. In total, these revisions to Component 1 resulted in an increase in the number of beneficiaries by 108,000 preschool students and 2,000 preschool teachers. Component 1 also expanded in value from US\$20.7 million at the time of approval to US\$22.5 million at the time of restructuring, with the difference coming from Component 2.

29. **Component 2** was also revised to expand the scope of coverage during the Restructuring #1 in 2016, ensuring that more schools would meet minimum school standards. This expansion of coverage increased the number of beneficiary general educational secondary schools in rural areas of Uzbekistan from 1,220 to 1,632 (an increase of 412 schools). Due to further cost savings, the number of beneficiary general educational secondary schools in rural areas was increased in 2018 by another 124 schools (from 1,632 to 1,756). With this increase, the project was benefiting approximately 25 percent of all rural general educational secondary schools in Uzbekistan. New technical assistance activities were also included to analyze existing state educational standards and provide recommendations to improve these standards, along with related capacity building and training. These changes were enabled by savings of activities financed under Component 2, and the savings were sufficiently large as to lead to a modest 8 percent decrease in Component 2 from US\$23.12 million at the time of approval to US\$21.3 million at the time of the Restructuring #1. Additionally, the technical assistance on revision of the regulatory framework for promotion and development of regulations for training and retraining of public education staff was cancelled given parallel reforms which delayed and eventually eliminated the need for this activity.

30. **There were no significant changes under Component 3.** However, the project was restructured again in 2019 (Restructuring #2) to amend the Grant Agreement (change in disbursement category) to accommodate the Recipient's request to use funds under this component to finance Uzbekistan's participation fee in the OECD's Programme for International Student Assessment (PISA).



Other Changes

31. **Results Framework.** Several intermediate outcome indicators in the Results Framework were adjusted to reflect the expanded coverage of existing activities, as well as the inclusion of new activities as described above. Targets for four intermediate indicators were increased, and one new indicator was added to measure progress towards the review of State requirements for pre-primary education, a new activity that was proposed as part of the Restructuring #1.

32. **Project Closing Date.** The actual start of implementation was delayed for several months due to the need for the implementing agency to comply with the in-country requirements on project preparation (i.e. preparation and approval of project Feasibility Study and issuance of President Resolution for project implementation). This, together with the need for more time to implement changes in project coverage and scope, had justified the initial extension of the project closing date by 18 months (from January 31, 2018 to July 31, 2019). At the request of the Recipient in July 2019, the closing date was further extended for five months (Restructuring #3) to enable the implementing agency to achieve better results with utilization of the remaining savings and contribute to the sustainability of key in project interventions. In total, the original closing date was extended by 23 months.

Rationale for Changes and Their Implication on the Original Theory of Change

33. The primary rationale for the substantial changes approved in 2016 was to take advantage of the unexpected savings of grant proceeds to broaden the scope of existing activities and add complementary activities that were consistent with the PDO. The three project restructurings did not imply any material changes to the original theory of change.

II. OUTCOME

A. RELEVANCE OF PDOs

Assessment of Relevance of PDOs and Rating

34. **The relevance of the PDO is rated High.** Both parts of the PDO statement are highly relevant to the country and sector context at the time of completion. The PDO is directly responsive and aligned with the CPF FY16-20, as adjusted through the Performance and Learning Review (Report No. 126078-UZ, July 2018), that was in place at the time of project closing. The revised *Focus Area 3: Investing in People* emphasized access to quality education, revising its indicator on enrolment of 6-year-old children in preschools in line with the Government's National Development Strategy 2017-2021 and its ambitious plans to expand ECCE and achieve 100 percent enrolment for children age 6-7 by 2021. The CPF acknowledges that while Uzbekistan's children enjoy nearly universal access to essential health and nutrition, the 25 percent national enrolment rate in ECCE is low by international standards, and the Systematic Country Diagnostic (Report No. 106454-UZ) highlighted widening access to pre-primary education, as well as quality issues in general, as particular development challenges in Uzbekistan. The PLR reiterated these challenges. The CPF and PLR also noted that while access to general secondary education is nearly universal, learning outcomes and quality of education varies across regions, with schools in rural areas faring worse in terms of available teaching and learning materials, quality of infrastructure, and student outcomes. Another CPF objective was to improve efficiency of local public service delivery which is also linked to the PDO on improving access to ECCE through the more efficient half-day model of pre-primary education. Finally, the revised *Focus Area 2: Reform of State Institutions and Citizen Engagement* emphasizes the need for strengthened citizen



participation in oversight of public service delivery. The PDO element on “improving conditions for better learning outcomes” is also highly relevant to this objective given that student assessment and quality monitoring capacity (supported under Component 3) contribute directly to institutional strengthening as well as public accountability and citizen oversight over quality of education services. In this context, the project and its PDO continue to be highly relevant.

B. ACHIEVEMENT OF PDOs (EFFICACY)

Assessment of Achievement of Each Objective/Outcome

35. **The overall efficacy of the project is rated Substantial.** The PDO consisted of two overarching outcomes: PDO 1 (“increased access of children aged 3-6 to quality ECCE in rural pre-primary institutions”) and PDO 2 (“improved conditions for better learning outcomes of students of rural general educational secondary schools”). The assessment of achievement of each objective/outcome is provided separately below.

36. **PDO 1: Increased access of children aged 3-6 to quality early childhood care and education in rural pre-primary institutions**, which was achieved through (i) nationwide rollout of the half-day model of ECCE in rural pre-primary institutions, including training for half-day teachers focused on child-centered, interactive, and play-based approaches, as well as equipment and furniture for rural pre-primary institutions; (ii) establishment of libraries within rural pre-primary centers, equipped with early reading materials, and (iii) distribution of high-quality early reading materials and storybooks (in Uzbek, Russian, and Karakalpak) directly to families in remote areas who could not enroll their children in pre-primary centers. Access—measured through enrollment rates in both half-day and full-day groups in rural pre-primary centers—increased significantly and the PDO indicator on enrollment exceeded its target. Quality also increased as a result of improved conditions in rural pre-primary centers for play-based learning, improved conditions for early reading activities in the home, as well as improved pedagogical and child-centered practices among half-day teachers, and improved quality of early reading activities in the home.

PDO 1: Increased access of children aged 3-6 to quality ECCE in rural pre-primary institutions	Actual	Target	Status
PDO Indicator			
Increased percentage of children aged 3-6 enrolled in ECCE in rural areas	28.3%	15%	Exceeded
Intermediate Results Indicators			
No. of children aged 5-6 enrolled in the project half-day model	98,855	98,000	Exceeded
No. of children benefiting from better equipped pre-primary schools that implement the half-day model (aside from children enrolled in the project half-day model)	123,280	120,000	Exceeded
No. of pre-primary education teachers trained to deliver the project half-day model	4,014	2,000	Exceeded
No. of children aged 3-6 benefiting from early reading activities in the home	658,082	500,000	Exceeded
No. of small libraries established in project pre-primary education institutions	2,420	2,420	Achieved
Review of existing State requirements for pre-primary education	Completed	Completed	Achieved
Increase in share of project half-day model teachers demonstrating mastery of key concepts of ECCE and child-centered teaching	Insufficient evidence	20%	Insufficient evidence
Establishment of a system to assess school readiness of children aged 5-6 enrolled in project half-day model	System not established	2 rounds completed	Not achieved

37. **The PDO indicator and 6 of 8 intermediate indicators were achieved or exceeded.** Enrollment in ECCE for children aged 3-6 in rural areas increased from 8.5 percent at baseline to 28.3 percent as of September 2019, exceeding



the final target of 15 percent. The project achieved this outcome by addressing the major supply and demand-side constraints identified by parents: high cost of the full-day ECCE programs, proximity of offerings in rural areas, and perceptions of low quality and limited value. In particular, increasing access to the half-day model of ECCE in 2,420 rural pre-primary centers which comprised 92 percent of all rural pre-primary centers in Uzbekistan as of 2016, reduced both cost and distance concerns. Offering the half-day model in rural areas brought ECCE closer to rural communities, while the highest monthly per child fee is approximately US\$2 to 3 compared with nearly US\$20 for the full-day model (as of May 2019). The project also supported the establishment of libraries in these centers, along with the distribution of high-quality storybooks, colorful and child-friendly furniture and equipment, and indoor/outdoor recreational equipment, which benefited students enrolled in both half-day and full-day groups. Additionally, 4,014 preschool teachers were trained on the half-day model to build their capacity to use practices associated with quality ECCE like child-centered, interactive, play-based approaches.

38. The project also had a strong demonstration effect, supporting the GoU to initiate ambitious plans to expand ECCE service provision, starting with approval of a large program⁴ in December 2016 to expand access to pre-primary education and improve its quality. By the project's midterm review in 2017, when the GoU program was initiated, the enrollment rate had already increased from the baseline of 8.5 percent to 13.4 percent (nearly achieving the target of 15 percent), indicating the success of the half-day ECCE model. The GoU program included intentions to improve quality of preschool education and children's readiness to learn based on adopted international best practices, to establish 6,100 half-day groups in preschools for children aged 5-6 (building on the achievements of this project), to improve infrastructure of 2,200 preschool institutions, and to improve curricula and syllabi for pre-service and in-service training of preschool teachers. In September 2017, the GoU established the new Ministry of Preschool Education (MPSE) to play the lead role in expansion of ECCE in Uzbekistan. The GoU implemented such ambitious plans in response to the success of this project in scaling up the half-day model of ECCE and demonstrating its effectiveness. As such, the actual enrollment rate far exceeded the target for the PDO indicator, representing the combined effort of the project and the subsequent GoU program which can be attributed to the project's successful demonstration effect.

39. Observations in 39 rural beneficiary preschools showed that 60 percent of trained preschool teachers were using play-based and child-centered practices mostly or all the time in the classroom.⁵ This finding resulted from the development of an ECCE classroom observation tool, developed drawing heavily from the 'Measuring Early Learning Environments' (MELE) constructs in order to measure the associated intermediate outcome indicator on "share of project half-day model teachers demonstrating mastery of key concepts of ECCE and child centered teaching." These classroom observations do not provide sufficient evidence to measure this indicator given the lack of a control or comparator group in the study. However, the results do suggest a positive and promising change in the quality of preschool teachers' pedagogical and child-centered practices, consistent with the *Bolajon* ECCE curriculum first introduced prior to the project. Furthermore, the development of the ECCE classroom observation tool represents an important step towards more systemic measurement of process quality in center-based ECCE. The establishment of a system for assessing school readiness of children aged 5-6 enrolled in the half-day model was not completed as anticipated (and the indicator was not met), largely due to an initial focus on general secondary education by MoPE and subsequent delays caused by the organizational split of MoPE and creation of the MPSE. However, the momentum around ECCE in Uzbekistan and the growing experience with quality measurement have led this system for assessing school readiness to be supported under the follow-up World Bank 'Promoting Early Childhood Development' investment project (P165737).

⁴ Presidential Decree #2707 on "Measures Aimed at Further Improvement of the Preschool Education System from 2017-2021," dated 29-December-2016.

⁵ Sadikova and Le Mottee (2020). "Measuring Changes in ECE Teacher Practices in Newly Introduced Half-Day Model."



40. Equipping rural preschools with storybooks and play equipment had a demonstrable effect on quality of ECCE. Interviews conducted by the Implementation Completion and Results Report (ICR) team indicated that the storybooks were heavily influential on quality and creativity of learning programs, supporting students and teachers both to design lessons, games, artwork, and activities based on the storybooks. These investments in rural pre-primary centers and the training of their staff helped to improve actual and perceived of ECCE quality in rural preschools. In total, 98,855 children benefited from enrollment in project-supported half-day groups and 123,280 children (in full-day groups) also benefited from better equipped kindergartens.

41. The early reading program, introduced to support reading at home for children aged 3-6 years in remote areas who could not attend pre-primary centers, was also an important pro-equity dimension of building demand for early learning and awareness of the importance of ECCE for children’s development. The early reading program benefited over 658,000 children in remote rural areas of Uzbekistan, which had an emphasis on improving equity given the relatively higher levels of poverty in remote areas and the difficulties of children in remote areas to access center-based ECCE. Though it was not explicitly evaluated in relation to the PDO, there is evidence that the early reading program and the ECCE communication campaigns also contributed to raising access to quality ECCE in rural pre-primary institutions by building parents’ awareness of and demand for more structured approaches to early learning outside the home, particularly for younger children. For example, the early reading program prioritized the most remote families as well as families with larger numbers of young children, since the package of storybooks could be used and reused by children of different ages. Makhallas⁶ were instrumental in book distribution and monitoring, and this community-based approach likely also contributed to further knowledge transmission related to both home-based activities to promote early learning and enrollment in rural preschools.

42. **PDO 2: Improved conditions for better learning outcomes of students of rural general educational secondary schools was substantially achieved: all three relevant PDO indicators and 4 of 5 intermediate indicators were achieved or exceeded.** Based on the project’s theory of change and results framework, as well as the mix of activities under Components 2 and 3, this ICR broadens the definition of “improved conditions for better learning outcomes” in order to assess efficacy with respect to this part of the PDO. The project’s results framework contains three PDO indicators which measure progress towards achievement of this element of the PDO, and all three indicators were met or exceeded. However, these PDO indicators only partially capture the achievement of this PDO (particularly PDO indicators 3 and 4) as they do not fully reflect several key activities that are important for assessing efficacy. Therefore, for this ICR, “improved conditions for better learning” refers to three sets of interventions:

- (a) upgrading schools’ learning environments to meet minimum school standards related to ICT equipment for computer labs and teaching and learning materials (*PDO indicator 2*),
- (b) implementation of student learning assessments and improved capacity to monitor education quality at the system and school levels (*PDO indicators 3 and 4, and intermediate outcome indicators*), and
- (c) upgrading of teacher retraining curricula and rollout of training programs to master trainers, teachers and school managers (*intermediate outcome indicators*).

PDO 2: Improved conditions for better learning outcomes of students of rural general educational secondary schools	Actual	Target	Status
PDO Indicator			
Increased percentage of rural GSE schools that meet minimum school standards	72.9%	63%	Exceeded

⁶ Makhallas are community set-ups that consist of an entire system of relations between inhabitants. This system has existed in Uzbekistan for centuries. Today, each Makhalla is a self-governing administrative unit.



Results of student assessments in mathematics and native language for Grade 4 analysed and publicly disseminated	Completed	Completed	Achieved
Results of student assessments in mathematics and native language for Grade 9 analysed and publicly disseminated	Completed	Completed	Achieved
Intermediate Results Indicators			
No. of teachers and school managers trained in advanced areas of teaching and education management developed by the project	200,271	200,000	Exceeded
No. of newly developed training modules	6	6	Achieved
No. of master trainers providing training in new areas of education management and teaching and learning	192	192	Achieved
No. of representatives of MoPE and province and district education departments trained in monitoring and evaluation	1065	832	Exceeded
Increase in the share of trained general secondary education teachers using pedagogical practices developed/upgraded by the project in the classroom	0%	20%	Not achieved

Improved access to ICT equipment and teaching and learning materials

43. **The project substantially improved the share of rural schools meeting minimum standards for ICT equipment and teaching and learning materials, with PDO Indicator 2 exceeding its target.** As a result of the project, the percentage of rural general educational secondary schools meeting minimum school standards for ICT equipment and teaching and learning materials increased from 44.8 percent in 2013 to 72.9 percent by project completion, far exceeding the final target of 63 percent. The project achieved this through large investments in modern ICT equipment, including computers, smart boards, and related technological equipment in 1,756 rural general educational secondary schools in Uzbekistan (approximately 25 percent of all rural schools in Uzbekistan, with priority given to the most disadvantaged rural schools selected according to designated criteria). This contributed to a nation-wide increase in the average number of computers per school, which was 17.1 as of 2017, up from 10.5 in 2012.⁷ Based on interviews with school staff conducted for the ICR, both teachers and students are using the ICT equipment for various planning, administrative, and pedagogical purposes. Students are encouraged to use the ICT equipment for various classes (not only technology classes), while teachers described the use of ICT equipment for lesson planning, grading, development of in-class activities, worksheets, and tests, and other types of administrative work.

44. ICT in schools presents a powerful opportunity for students and schools to bridge the ‘digital divide,’ hence the importance of prioritizing rural schools where students have less access to ICT at home, and ensuring a major increase in rural schools’ access to ICT is an important achievement of this project. Furthermore, wider use of ICT as a pedagogical and management tool is explicitly emphasized in the ESP 2019-2023, and the Government is actively seeking to enhance teachers’ ICT competencies with the aid of ICT competency requirements for teachers. This is consistent with research which suggests that the most promising models integrate ICT hardware with specific learning programs, educational software, and/or technology-enabled behavioral interventions in education.⁸ Although ICT-enabled education is still limited in Uzbekistan with only 7 percent of general secondary schools using any form of ICT-enabled education according to the Education Sector Plan (ESP) 2019-2023, the investments in ICT as a fundamental precondition for ICT-enabled education will continue to pay dividends going forward.

Student learning assessments and improved monitoring capacity

⁷ World Bank (2018). Uzbekistan: Education Sector Analysis.

⁸ Escueta, Quan, Nickow, and Oreopoulos (2017); Barrera-Orsorio and Linden (2009); Fuchs and Woessmann (2004)



45. PDO Indicators 3 and 4 measure high-level commitment to measuring and institutionalizing quality concepts, as well as the capacity to conduct large-scale student assessments and disseminate assessment results in order to feed back into the education system to improve quality. This is consistent with international evidence showing that data on learning results can help schools and teachers to measure progress towards learning goals and adapt instruction to students' needs. In this context, commitment to and capacity for quality measurement, along with the dissemination of assessment results, are considered important elements of "improved conditions for better learning outcomes" in line with the PDO statement. However, it should be noted that these assessments were conducted in urban as well as rural schools, thereby contributing to improved conditions for better learning outcomes at the system and school levels.

46. **Both indicators, PDO 3 and PDO 4, were also achieved.** The sample-based assessment of learning outcomes of 4th and 9th grade students in mathematics and native language was conducted in May 2019, with assessment tests applied to 9,590 students across 80 general secondary education schools. Additionally, 178 test administrators were trained for these assessments. The test results were scored, analyzed, and publicly disseminated via the MoPE public website. These results showed several important elements for practitioners and policymakers, including that a larger share of Grade 9 students perform below standard for mathematics compared to Grade 4 students, and that male students are more likely than female students to perform below standard in almost every testing domain. Though it is unclear to what extent schools will be able to use the disseminated assessment results to improve conditions for better learning outcomes, the achievement of both indicators represents a major step forward in terms of improved information on student learning.

47. The achievement of these indicators also reflects a significant evolution of political and technical commitment to measuring quality of student learning outcomes at the system level in Uzbekistan, and this was also the justification for maintaining rather than revising these PDO indicators. The ESP 2013-2017 specifically highlighted the need for capacity building to support qualitative monitoring of educational quality and institutionalize a focus on quality. Prior efforts at student assessment had been limited in scope and not publicized, contributing to low levels of accountability in the system and reflecting a limited view of the purpose and value of external quality assessment. For several years even after the project started, the MoPE was unable to endorse and pursue such an approach to quality assessments. Given this starting point, the project contributed substantially to improving the Government's institutional commitment to quality monitoring and assessment, largely driven by technical dialogue and a change of mindset in the MoPE. The achievement of these indicators together with the MoPE's decision to join international assessments like OECD's PISA reflect a major step, both in terms of political commitment and technical capacity, towards the modern conditions needed for improving learning outcomes over the medium-term. The project's financing along with the technical assistance and dialogue significantly contributed to this outcome.

Teacher retraining

48. **The project's investments in teacher training curriculum and implementation of teacher retraining is likely to have an important effect as well on improved conditions for better learning outcomes in rural schools.** The project improved teacher training through several interventions, including (i) improved training conditions in all 16 in-service training and retraining institutions (including the Republican Training and Methodology Center of Preschool Teacher Training and Retraining); (ii) upgraded training modules in six high-need areas including education management, teaching methods and methodical support, ICTs, distance education, inclusive education, foreign language training, and labor protection and awareness regarding child and forced labor; (iii) development of information systems to support teacher training; and (iv) implementation of training for 192 master trainers and 200,271 general secondary education teachers and managers (191,743 teachers and 8,528 managers).



49. The project met or exceeded the three relevant intermediate outcome indicators related to development of training modules, training of master trainers, and training of teachers and school managers. Teacher training focused on the six modules covering high-need areas mentioned above. 192 master trainers were trained in August 2018, followed by cascade training of just over 200,000 teachers between September 2018 and approximately May 2019 (representing approximately 50 percent of all teachers in Uzbekistan for grades 1-9). Training was conducted over 6 days, for 8 academic hours per day. Each group consisted of about 32 trainees. The training involved interactive methodologies that involved active discussions and participants were given opportunities to learn from each other. Participants used these opportunities to exchange interactive practices from their experience in the classroom. This is consistent with various elements highlighted in research of effective teacher professional development, including a focus on content, active learning, collaboration, and modeling approaches.⁹

50. Although there is no evidence yet that trained teachers have substantially changed classroom pedagogical practices, the investments in teacher training curricula, training implementation, and training evaluation are expected to yield important benefits for teacher quality moving forward. Available evidence (though limited) suggests that the indicator designed to capture change in teacher pedagogical practices resulting from training was not achieved. To measure this indicator, the MoPE conducted a study in May 2019 using the World Bank's TEACH classroom observation tool, with a focus on the quality of teaching practices related to instruction. The TEACH study found that the difference in practices between trained and untrained teachers was not statistically significant. However, this could be due to several factors, including (i) limited time between teacher training and when the study was conducted, and (ii) overlapping of the TEACH enumerator training and classroom observations with the final month of classes for the 2019-20 academic year. However, anecdotal evidence from interviews conducted during the ICR mission suggest that the project's investments in these areas will have long-lasting effects on enhancing quality of offerings at INSET institutions and strengthening the critical link between training processes and measurable changes in classroom teaching practices. For example, representatives of the Avloniy Central Institute for Teacher Training and Retraining noted that since many of the master trainers are also university professors involved in initial teacher education, the modules and training of master trainers have had the positive effect of introducing modern concepts into initial teacher education programs. Additionally, the training modules, developed according to the competency-based approach and based on the current State Education Standards, have become integrated in all curricula for advanced teacher training.

Justification of Overall Efficacy Rating

51. **The overall efficacy rating is Substantial based on the evidence described above.** PDO 1 on increasing access of children aged 3-6 to quality ECCE in rural pre-primary institutions is rated *High* for efficacy given that the PDO indicator was significantly exceeded and given the evidence on sustainability of child-centered and high-quality teacher practices, contributing to quality in ECCE service delivery. PDO 2 on improved conditions for better learning outcomes is rated *Substantial* for efficacy. All three relevant PDO indicators were met, along with 4 of 5 intermediate indicators. There is also evidence that ICT equipment and materials are contributing to improved learning conditions to facilitate instruction, student engagement, and teacher preparation and planning, all of which would have an important effect on learning outcomes over the longer term. Additionally, disseminated learning assessment results, updated teacher training curricula, and implementation of teacher retraining also represent positive directions for education quality going forward and set the stage for improved learning conditions, particularly given that the GoU has demonstrated its commitment to expand and build on these project interventions going forward.

⁹ See for example Darling-Hammond et al. (2017); Popova, Evans, and Arancibia (2016); OECD (2017).



C. EFFICIENCY

Assessment of Efficiency and Rating

52. **The project's efficiency is rated as Substantial**, consistent with what would be expected for operations in the education sector. This rating is based on both economic analysis and aspects of design and implementation that further contributed to an efficient and economical use of resources.

53. **Foundational skills developed through early learning opportunities and formal general education have been proven to be among the most cost-effective investments in human capital.** A substantial body of evidence from around the world shows that early childhood (ages 0-6) is a critical period in a child's physical, cognitive, linguistic, and socioemotional development. Investments that nurture early learning and cognitive development have lasting positive private and social benefits including educational attainment, health, fertility, and earnings later in life. The return in terms of national productivity to a dollar of investment made while a person is young is estimated to be between US\$7 and US\$16, and higher than the rate of return to the same dollar invested at a later age.¹⁰ These higher returns are partly due to the finding that cognitive skill, which influences achievement levels over schooling, is more malleable at younger ages and that younger learners will use their skills over a longer period of time. Aside from pre-primary education, returns to basic education (general secondary education in Uzbekistan) were highest in Asia at the time the project was prepared, lending further justification to the project's interventions as an economically efficient use of resources.¹¹ However, evidence shows that this has changed over time, with tertiary education now yielding the highest returns, though a separate tertiary education operation (*Modernizing Higher Education Project*, P128516) was approved in 2016 to support this level of education.¹²

54. **Educational investments are also more cost-effective when benefiting disadvantaged or vulnerable students through a pro-equity approach.** The home environment is crucial for child development and student learning, but poor children frequently do not have access to the resources at home enjoyed by their wealthier peers. This disparity leads to performance gaps between children from different socioeconomic backgrounds and the widening of these gaps as children grow older. By using public resources to support learning for the most disadvantaged children, particularly those in rural and remote areas across all regions of Uzbekistan, the project was able to target resources towards those students who would see the largest gains. With 48.8 percent of the population living in rural areas and also a concentration of poverty, it was particularly important to focus resources on rural areas. For ECCE, pre-primary enrollment rates were only 8.5 percent in 2010, compared to 29.5 percent in urban areas, and over 70 percent of out-of-school preschool-age children lived in rural areas. In remote rural areas, children had even less access to age-appropriate early learning opportunities. In general secondary education, rural schools were more likely to be underequipped, failing to meet minimum quality standards, which further contributed to socioeconomic disparities that rural students already faced at home. For these reasons, the project's pro-equity design—specifically the targeting of rural preschools, remote households for early reading initiatives, and rural general secondary schools—contributed to the project's efficient use of resources.

55. **The project's support to develop and implement the economically efficient half-day model of ECCE allowed the GoU to sustainably expand access to quality pre-primary education and transition from a model oriented around childcare to a more effective model prioritizing school readiness.** A major rationale for the half-day ECCE model as a

¹⁰ Extensive research literature is cited in PAD and World Bank (2013) "Improving ECCE in Uzbekistan"

¹¹ Patrinos & Psacharopoulos (2002)

¹² Montenegro & Patrinos (2014); Patrinos (2016)



means to increase enrollment was that it required fewer public resources per child compared to the standard full-day program, while still offering sufficient instructional time for children to experience cognitive gains needed for school readiness. Since the PDO was to increase access to ECCE services in rural areas, the half-day model was clearly a more cost-effective approach than the alternative full-day model. Furthermore, even though the system for assessing school readiness was not developed under the project as envisioned, there is clear evidence from similar contexts, such as in the Kyrgyz Republic, that half-day programs with similar design to that in Uzbekistan yield substantial benefits in terms of school readiness, such as improvements in language and cognitive development, communication skills, and social competences.

56. **The estimated cost savings from implementing the half-day model were substantial:** the GoU financed half-day teacher salaries during the project life, which allowed the GoU to reach up to twice as many children with the same expenditure on teacher salaries, as children are only in school for half of the day. The impact on the salary wage bill of expanding access through the half-day model was estimated to be 44 percent less than expansion through the full-day model, and the use of shifts for the half-day model allowed for more efficient use of the ECCE facilities. The project also created cost savings to parents (thereby increasing parental demand for ECCE), as fees were lower for the half-day model (US\$13 per child per month, compared to US\$30 per child per month, equivalent to 100% of the minimum wage when the project was approved). However, as the Government expanded the half-day ECCE model over time (particularly after 2017 when the GoU launched its nationwide preschool expansion program), the fee differential grew further, with the per-student fee of the half-day model becoming even more affordable for families. Prior to the project, the half-day fee comprised 43 percent of the full-day fees; by 2019, the half-day fee comprised only 18 percent of the full-day fees. The half-day fees also declined from 43 percent of the minimum wage in 2011 to about 13 percent of the minimum wage as of 2019. In total, cost savings from the half-day model included US\$3.6 million to the government and US\$10.4 million to parents over 3 years, though actual savings were larger given that the half-day model was expanded both as a result of the project and because the GoU further scaled up the model.

57. **Costs for furnishing and equipping pre-primary centers are on par with other similar projects.** This project provided pre-primary centers with a standard package of classroom furniture, outdoor and indoor recreation equipment, and teaching and learning materials which benefited students in the half-day program as well as other students in the full-day program but attending the same pre-primary center. In this project, the direct cost per center is approximately US\$5,748. This is higher than a similar program in the Kyrgyz Republic where the cost per community-based kindergarten totaled US\$1,689, though the program in Kyrgyz Republic included mostly furniture and basic equipment, whereas this project provided substantially more in the way of recreational and didactic equipment.¹³ However, the cost per center is substantially less than in another similar project in Mongolia where furniture, equipment, and appliances amounted to approximately US\$26,000 per center.¹⁴

58. **ICT investments under Component 2 appear to be comparable with and even more cost efficient than other such investments.** For example, the average unit cost for ICT equipment under Component 2 was approximately US\$188 per unit, compared with over US\$700 in another similar project implemented in China during the same time period. The Government's decision to extend general secondary education from 9 to 11 years further enhances the coverage of such investments, since this means that two more grades of students (grades 10 and 11) will benefit from these investments and have access to the resources, meaning that the costs can be spread over more beneficiary students. However, the literature on cost effectiveness of ICT investments emphasizes that their 'value for money' depends on how they are used in practice by teachers in the classroom. Teachers did receive training specifically on ICT use as part of the project, and

¹³ World Bank (2018c).

¹⁴ World Bank (2015).



the MoPE intends to emphasize teacher training on ICT use moving forward which will further support efficient use of resources under this component.

59. **Through efficient procurement activities, the project generated large savings allowing interventions to expand in scale, thereby further enhancing the project's efficiency.** As mentioned above, the project was restructured in 2016 in order to reallocate savings of loan proceeds that were primarily the result of the following factors: (i) changes in technical specifications of ICT equipment and furniture that were purchased for the implementation of minimum school standards in general educational secondary schools and the half-day model of ECCE; (ii) exchange rate variation; and (iii) discounts offered by bidders that submitted winning proposals in ICB. These savings, combined with the decision to reallocate those savings to expand the scale of project interventions, contributed further to the efficient use of resources by decreasing unit costs of project-supported interventions. This is particularly the case for the scaling up of ECCE activities under Component 1, given the relatively larger per-dollar impact of ECCE investments and the size of the scale-up. However, it is also the case for general secondary education investments given the high number of direct beneficiaries (estimated at over 750,000 students across 1,756 rural general secondary schools).

60. **Project supervision was also highly efficient.** This was partly the result of sustainability of the PIU team over time, including their involvement in the design and implementation as a key factor that contributed to pace of implementation. By comparison, many other projects in Uzbekistan experienced high turnover in the PIU which reduced their efficiency versus this project. Furthermore, the project was task managed by the same Task Team Leader (TTL) over its duration, who also led other parallel activities in Uzbekistan at the time. This minimized transition and handover time, while also allowing the Bank to economize on resources and efficiently subsidize variable costs.

D. JUSTIFICATION OF OVERALL OUTCOME RATING

61. **The overall outcome rating is Satisfactory** due to High Relevance, Substantial Efficacy, and Substantial Efficiency of project interventions. The project was still highly relevant at the time of closing and the design addressed the main areas where funds were needed, particularly to improve ECCE enrollment and learning conditions in general secondary schools in rural areas of Uzbekistan. The project achieved its PDO and met or exceeded the targets for all PDO indicators. The project also shows promise for institutionalizing several good practices related to system monitoring and performance assessment. Finally, the project achieved its PDO in an efficient manner given the high economic benefits of investments in ECCE and general secondary education, the cost savings generated through the half-day model of ECCE, and through efficient procurement approaches that allowed the project to increase its scale and reach more beneficiaries.

E. OTHER OUTCOMES AND IMPACTS (IF ANY)

Gender

62. In Uzbekistan, gender differences in enrollment at all levels of the education system remain small. At project preparation, enrollments by gender were almost equal: 54 percent of preschool children were female as of 2010, and 48 percent of all general educational secondary school students were female as of 2012, according to official data. At project closing, enrollment and completion rates for ECCE and general secondary education still retain very high gender parity. The project did not specifically target enrollment of girls but monitored key indicators on enrollment and access by gender to ensure that no changes took place during project implementation.



63. Although the project did not directly target gender-focused interventions, the project's contribution to increasing enrollment in ECCE in rural areas provided greater opportunities for mothers to participate in informal livelihood activities and manage household tasks, and for young female siblings to forego child supervision responsibilities in exchange for their own schooling and developmental activities.¹⁵ For example, parents interviewed in Namangan Region, Pop District mentioned that they liked the half-day model for ECCE because it allows kids to learn and afterward spend part of their day with grandparents or other extended family members, allowing time for parents to work.

64. The project also contributed to efforts to improve gender equity in early learning activities at home and reduce gender stereotypes. Although studies in Uzbekistan suggest that patriarchal family models are common and preferred, particularly in rural and remote areas, the early ready program supported by this project involved both mothers and fathers in home-based reading activities with children. During visits for this ICR, mothers and fathers both participated in interviews and expressed a high level of support for the storybooks that were distributed to families, including requests for a larger selection of storybooks and other materials. By providing resources and support for families to contribute to early reading activities at home, fathers are more able to participate in the process, thereby helping to address prevailing gender stereotypes and norms. This could have significant positive impacts later in life as well, given research showing that fathers as reading role models, especially for boys, can further help to reduce gender stereotypes about reading and improve boys' motivation to read and reading literacy later in their schooling.¹⁶ These outcomes may be further reinforced during the lockdown imposed by the onset of COVID-19, when schools are closed and parents have to play the role of teacher as well as parent.

65. Finally, the project supported participation in the Third Party Monitoring (TPM) and Feedback Mechanism (FBM), along with efforts to build awareness and train teachers and school staff on issues and legislation related to preventing child and forced labor in cotton harvesting. The project's activities also helped to reduce pressure on education workers—the majority of whom are women—by local authorities and administrators to pick cotton or provide financial resources to support the cotton harvest.

Institutional Strengthening

66. The project supported numerous interventions which improved institutional capacity of the education system, particularly related to monitoring capacity. For example, the project's support for the standardized learning assessments in Grades 4 and 9 and associated technical dialogue advanced institutional commitment and capacity within the MoPE with large-scale assessment efforts. As a result, Uzbekistan committed to participation in the OECD's PISA in 2021, indicating further institutional strengthening in line with national and even international efforts for large-scale student assessment. The MoPE used project funds to pay for requisite PISA 2021 participation fees.¹⁷ Additionally, the project's support for implementing the TEACH open portal classroom observation tool further strengthened institutional capacity towards assessment of teaching practices. During the initial TEACH trainings for enumerators, the MoPE expressed interest in expanding the training and building capacity throughout the education system on classroom observation and the TEACH instrument. Prior to the closing of the project, the GoU had implemented TEACH and trained over 800 teachers (4 in each of Uzbekistan's 200 districts) using its own funds on the TEACH instrument and methodology. This was an unanticipated positive outcome of the project indicating a growing capacity for and significant uptake in approaches for

¹⁵ ADB (2018)

¹⁶ Baker and Vernon-Feagans (2015); Watson, Kehler, and Martino (2010); Chandler (1999)

¹⁷ The use of project funds to pay for PISA 2021 participation fees was approved by the World Bank and the GPE as part of Restructuring #2 approved in 2019. The Grant Agreement and disbursement category was amended to explicitly include OECD PISA 2021 participation fee as an eligible expenditure, consistent with the GoU's commitment to student assessment supported under Component 3.



assessing teacher practices, particularly since Uzbekistan has not previously had any standardized and evidence-based approaches to assessing teacher practices. Finally, the project's support for the ECCE half-day model contributed in part to the Government's capacity and commitment to greatly expanding ECCE coverage in Uzbekistan, exemplified by the establishment of the new Ministry of Preschool Education and the request for the subsequent World Bank 'Promoting Early Childhood Development' investment project (P165737).

Mobilizing Private Sector Financing

67. Not applicable.

Poverty Reduction and Shared Prosperity

68. Educational opportunities for disadvantaged students have been shown to reduce poverty and help close equity gaps in student achievement over the long-run. By targeting children and their families in rural areas, where poverty was widespread and poverty rates were higher, the project was designed to reduce poverty and promote shared prosperity. While the poverty rate has declined significantly in the last 10-15 years, poverty in rural areas remains nearly double than in urban areas, so the initial focus on rural pre-primary and general secondary schools as well as the project's expanded scale in rural areas (following the 2016 project restructuring) has played and will continue to play a major role in reducing poverty and contributing to shared prosperity going forward.¹⁸ At the time of project preparation, for example, only 37 percent of remote rural schools had a sufficient number of teaching materials compared with 64 percent in urban areas. Furthermore, equity-oriented selection criteria were used to identify preschools and general secondary schools in rural areas to benefit from project investments and to prioritize remote locations (further from district centers), as well as for example preschools with relatively fewer qualified teachers, and general secondary schools with poorer student performance results. This helped to ensure that the project benefited students and families for whom socioeconomic disadvantages represented major constraints to school attendance and learning resources.

Other Unintended Outcomes and Impacts

69. As mentioned, the project and success of the half-day model of ECCE provision contributed to the Government's adoption of a much larger ECCE program and establishment of the MPSE, but it also generated awareness of the need to further expand access while controlling costs. Although the introduction of the half-day model did expand enrollment in rural areas (as intended) and provide the Government with a new model of service delivery, the Government's vision for 100 percent enrollment of children age 6-7 by 2021 required new approaches in urban areas where demand remains high. Through the project's support to the half-day model, the project helped contribute to the Government's decision to open the market for private providers and establish public-private partnerships for ECCE delivery in urban areas, with a focus on school readiness and building on lessons learned from implementation of the half-day model.

70. A final unintended benefit of the project related to compliance with Third Party Monitoring (TPM) and Feedback Mechanism (FBM) on child and forced labor in the country. The TPM and FBM were established in 2015 with support of the International Labor Organization (ILO) and a multi-donor trust fund established to finance activities to support the elimination of child and forced labor in Uzbekistan's cotton sector. This project was one of the first in the Bank's portfolio to be included in the TPM and FBM arrangements, and given that the project scope covered all areas of the country, it facilitated the nationwide monitoring of social issues and compliance with agreements on child and forced labor across

¹⁸ World Bank Multi-Dimensional Preschool Needs Index (2018); UNDP (2015)



all of Uzbekistan during both pre-harvest and harvest phases. For example, in 2016, ILO experts visited 367 sites throughout the country, and 198 of these sites (54 percent) were preschools and schools located in all regions.¹⁹ In 2018, the ILO conducted a detailed survey in 397 education institutions, covering 170 preschools, 170 schools, and 57 universities in all regions of the country, covering over 2,900 employees and university students.²⁰ No other projects allowed for this degree of coverage. This wide degree of coverage was also important for generating knowledge on good practices at the local level, many of which came from the education sector including tracking of pupils to keep children away from cotton picking, and integration of child/forced labor topics into extracurricular activities and training curricula.

III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

71. Considering the low preschool education enrollment rates, the significant investment needs to upgrade learning conditions in general educational secondary schools, and the limited project funds, the project design focused on cost-effective approaches to scaling up ECCE enrollment while prioritizing investments in high-need rural areas. The project design incorporated and benefited from several key factors during preparation that contributed to quality at entry and implementation readiness. These included:

- Preparation of the ESP 2013-2017, with support from Local Education Group, as a key step in becoming a member of the GPE and a pre-requisite to accessing GPE resources.
- Extensive sector work and social analysis in Uzbekistan, particularly the *Improving Early Childhood Care and Education in Uzbekistan* study published in 2013 which provided in-depth analysis of ECCE policies and programs in Uzbekistan with a focus on increasing access and equity, promoting quality, and ensuring adequate and effective financing. Additional sources included Uzbekistan's MICS 2006 and the evaluation of UNICEF's Child Friendly Schools Project.
- Extensive research evidence from developing countries on ECCE and basic education, particularly related to early learning and stimulation, teacher effectiveness, and ICT in schools.
- Previous experience with implementation of half-day programs (partially funded by UNICEF) in three regions of Uzbekistan, as well as the revision of the national ECCE curriculum to focus on child-friendly approaches.
- Experience of previous Bank-financed education projects in Uzbekistan, BEP Phase I and II, which informed provision of ICT equipment for general educational secondary schools and student assessments in grades 4 and 9.
- Consultations with stakeholders, particularly Makhallas, international and Uzbek experts, and education development partners.
- Alignment with the Welfare Improvement Strategy.

72. **Compliance with TPM and FBM on social issues of child and forced labor.** During preparation, the GoU committed to observance of legal covenants established in the Grant Agreement on social issues of child and forced labor, particularly the participation of the project in the TPM and FBM which were introduced in 2013-2014. Compliance with these requirements absorbed resources and attention of project staff, as project implementation at times had to be adjusted to ensure sequencing of activities in line with TPM implementation. For example, the first set of pre-primary centers to benefit from the project had to be selected while excluding certain regions that at the time were not covered

¹⁹ ILO (2017). Third-party monitoring of measures against child labour and forced labour during the 2016 cotton harvest in Uzbekistan.

²⁰ ILO (2019). Third party monitoring of child labour and forced labour during the 2018 cotton harvest in Uzbekistan.



by the TPM. Furthermore, compliance with TPM required detailed information about locations of project-supported schools and frequent exchanges between the Project Management Team (PMT), World Bank, ILO, and Coordination Council.

B. KEY FACTORS DURING IMPLEMENTATION

Factors subject to control of government and/or implementing agencies

73. **Political change in leadership and priorities.** In late 2016, Uzbekistan underwent its first leadership change since the country's independence in 1991. In 2017, the country launched the National Development Strategy for 2017-2021, an ambitious program of market-oriented reforms that were unprecedented in the country's modern history. This led to some significant changes in the education sector, including a "big bang" approach to reform acceleration across all education sub-sectors which created a hectic pace of change. The Government established the new Ministry of Preschool Education in 2017 (becoming the third²¹ central body governing education policy in Uzbekistan) and changed leadership in the MoPE in 2018. There were also several changes in Project Director (Deputy Minister of MoPE) during project implementation, through consistency of the PIU team and its "institutional memory" of the project played an important role in managing and sustaining implementation. While changes in leadership and priorities were mostly consistent with the project's objectives, the speed and scale of the reforms at times created implementation delays as functions and responsibilities shifted in line with evolving government priorities. For example, MoPE retained responsibility for implementing Component 1 on ECCE, despite the official change in responsibilities to MPSE, although both agencies collaborated on planning and technical dialogue.

74. **Country systems for delivery of goods.** The Government maintained a well-organized and effective approach to delivery of all project-financed equipment, materials, and supplies from central warehouses in Tashkent to preschools and general educational secondary schools across the country. Given the large scale of procured items and the fact that beneficiary schools were located in rural areas of Uzbekistan, this was a crucial element of project success. Additionally, local communities—namely Makhalla Committees and Women's Committees—played an important role in project implementation at the local level by identifying beneficiary families in remote areas and supporting delivery of storybooks to those families for the early reading initiative. While they were initially expected to play an even larger role in project implementation, the Makhalla Committees' contributions to the early reading initiative helped to guarantee the project's pro-equity design by ensuring that families with the greatest needs and least access to preschools would benefit.

Factors subject to control of the World Bank

75. **Consistency of World Bank staff and consultants.** This project benefited from consistent task team leadership, with the same TTL from preparation through until completion. This ensured stability with respect to project management, data collection, and communication, and a strong institutional memory which was particularly important given the political and policy changes mentioned above. Similarly, long-term local consultants engaged at the start of the project remained involved in implementation support throughout the project, aiding in data collection, reporting, and institutional coordination between the Bank, the MoPE, and the new MPSE.

²¹ The third is the Ministry of Higher and Secondary Specialized Education.



76. **Candor and quality of reporting.** Stability in team leadership contributed to adequacy of reporting on implementation issues to Bank management and the GPE Secretariat. Good quality reporting helped to ensure management attention as needed and to facilitate proactive project supervision (see ‘Quality of Supervision’ below).

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

M&E Design

77. The project design benefits from a clear theory of change and well-developed M&E arrangements that were in place from the beginning of the project. The results framework had a clear link to the project’s two main components and most PDO, output and intermediate outcome indicators were well-formulated. There were some modest shortcomings in the selection of PDO indicators, particularly the two indicators related to learning assessments, which both measure the same underlying outcome and more accurately measure learning outcomes rather than improved conditions for better learning outcomes. However, the emphasis on learning assessments at the PDO indicator level helped to maintain strategic and high-level attention to this outcome, which is critical for sustained improvements in learning over time.

M&E Implementation

78. Data for M&E and results framework indicators were collected and analyzed efficiently and in a methodologically sound manner, in line with planned M&E arrangements. Project restructuring was also used as an opportunity to update the design of the results framework by adjusting targets and adding new indicators. For the majority of indicators in the results framework, the PMT was able to consistently collect the requisite data needed for their calculation using administrative data systems or project reporting.

79. For several indicators, evaluative assessments of key activities were conducted to provide evidence of project impact and inform further MoPE-led activities. For Component 1, an ECCE classroom observation tool was developed and used to assess teacher practices associated with quality ECCE like child-centered, interactive and play-based approaches. This tool, developed drawing heavily from the ‘Measuring Early Learning Environments’ (MELE) constructs, was intended to measure the intermediate indicator on increase in the share of project half-day model teachers demonstrating mastery of key concepts of ECCE and child-centered teaching. Additionally, for Component 2, the TEACH classroom observation tool was adapted for Uzbekistan and used to measure progress towards the intermediate outcome indicator on increase in the share of trained general secondary education teachers using pedagogical practices developed/upgraded by the project in the classroom. However, in both cases these assessments were conducted only once during the project which prevents valid measurement of change over time due to project interventions (at project preparation, two rounds of assessments were envisioned). Furthermore, the ECCE classroom observation assessment did not include a control group, so the associated indicator on teacher practices cannot be verified.



M&E Utilization

80. The M&E data were used to inform the project on effectiveness of implemented interventions. The data were regularly used to report on the status of project implementation and results achieved, and that data was also reflected in the corresponding Implementation Status and Results Reports (ISRs). The M&E data were found to be reliable and consistent over time. M&E data were also used particularly when the project was restructured and the scope and scale were expanded. M&E data were used to determine the potential for scaling up activities to benefit additional children, families and schools. Additionally, M&E data were used to inform related and simultaneous programs, such as the 2018 Education Sector Analysis, the ESP 2019-2023, and the planning and design for the new Bank-financed 'Promoting Early Childhood Development Project.' Finally, M&E data for the project were also used to communicate with the public through official and unofficial promotional materials produced by the MoPE and the Bank team.

Justification of Overall Rating of Quality of M&E

81. **The overall quality of M&E is rated as Modest.** The M&E design and theory of change was clear and well-integrated into the existing norms and routines of the MoPE, with smooth implementation throughout the project period. However, there were shortcomings in the selection of PDO and intermediate outcome indicators and their link between core project activities and the PDO, as described above. Even so, the project helped to build M&E capacity within the MoPE, particularly through the development and implementation of new monitoring instruments and tools including classroom observation tools of teaching practices which are already being institutionalized in the education system. The M&E data collected throughout the project informed not only changes to the project design (e.g. expansion of scale) but also parallel efforts to improve measurement and accountability in the education system, especially the development of the new ESP 2019-2023 and other analytical and operational programs.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

82. **Environmental Compliance.** At preparation, it was agreed that only minor civil works for renovation of interior spaces would be completed in schools that would benefit from the project. As such, the project was classified as World Bank environmental Category C, and no environmental safeguards policies were triggered. However, during implementation, the Government announced the President's Decree #2133 which set the basis for improvements in teaching and learning conditions especially in rural schools as part of initiatives of the 'Year of the Healthy Child.' As a result, the GoU intended to renovate and repair a significant number of schools across the country under a more comprehensive approach, which included e.g. works in classrooms and on building roofs. However, the project remained classified as Category C and no environmental safeguards policies were triggered given the limited scale of works and that the project's success did not depend on these renovations, nor were the renovations a condition for project support.

83. **Social Compliance.** The project's social risk rating was Substantial at preparation and throughout much of implementation due to the substantial risk that teacher and school manager beneficiaries may be mobilized to pick cotton or provide financial resources to support the cotton harvest, and the relatively lower risk that student beneficiaries may be mobilized. To mitigate this risk, the project participated in the TPM and FBM that were established to focus on issues of child and forced labor for selected projects of the World Bank's portfolio in Uzbekistan. By 2017, the ILO published its annual report on child and forced labor which indicated that in the 2017 harvest there was no systemic use of child labor in the cotton harvest in Uzbekistan. Given these changes, the risk rating was downgraded to Moderate. It remained at moderate because while the project does have social benefits with improved learning opportunities, some risks of forced labor of teachers in relation to cotton harvesting still existed. The Grant Agreement included legal covenants pertaining to social compliance and the project remained in compliance with these covenants throughout the duration of the project.



84. **Fiduciary Compliance:** Fiduciary risk was rated as Moderate throughout the project implementation period. The fiduciary team carried out regular reviews and reported no major issues in terms of compliance with financial management and procurement standards. Fiduciary capacity was assessed as satisfactory, including capacity of the PMT to handle national and international procurement activities in line with major project interventions. Fiduciary arrangements within the MoPE remained satisfactory throughout the project implementation period.

C. BANK PERFORMANCE

Quality at Entry

85. **The quality at entry for the project is rated as Satisfactory.** The preparation team had a strong mix of (i) comprehensive sector knowledge and analysis, (ii) local implementation experience gathered from previous Bank operations as well as other partner-supported programs like UNICEF's half-day ECCE pilot program, and (iii) consultations with stakeholders and partners at national and local levels. Based on this strong mix, the team rightly decided to focus the project on key areas that would simultaneously address both identified demand-side and supply-side constraints to ECCE, while also improving the quality of learning conditions in general secondary schools. A thorough analysis of sector challenges allowed the team to decide to focus interventions in rural and remote areas, where poverty rates were highest and where human development interventions have the greatest impact. In-depth preparation work of the team also allowed for the establishment of clear selection criteria for preschools and general secondary schools prior to project approval, which also facilitated implementation readiness. The preparation team adequately identified risks and mitigation measures in the Operational Risk Assessment Framework annexed to the PAD. Lessons learned from previous projects as well as key priorities of both the GoU and the World Bank were considered and incorporated in the design.

Quality of Supervision

86. **The quality of supervision for the project is rated as Satisfactory.** There were nine formal supervision missions including a midterm review mission, each with ISRs reporting on project progress, as well as additional technical support missions as needed. Given the consistency in team leadership and composition, implementation support remained stable and consistent throughout the duration of the project, which also contributed to the stability of supervision and consistency in candor and quality of performance reporting. For example, Implementation Progress was downgraded and upgraded several times throughout the project (between S and MS) to reflect delays and progress in various project activities. Progress towards the achievement of the PDO was rated as S until the final ISRs when it was downgraded to MS to reflect delays in student assessment activities that were critical for being able to measure PDO indicators 3 and 4. (However, those assessment activities were eventually completed and PDO indicators 3 and 4 were achieved before the project closed). Additionally, proactive supervision and flexibility in coordination with the GPE allowed for three restructurings of the project which afforded sufficient scope for adjustments to design and extension of additional time to implement key activities. While the Bank team could have used Restructuring #1 as an opportunity to revise PDO indicators 3 and/or 4, at that time little progress had been made towards student assessments, and the Bank team took the strategic approach through supervision to maintain the PDO indicators (despite only partially capturing achievement of the PDO) in order to keep high-level attention on measuring quality of learning outcomes. The fiduciary team was based in the region and provided regular and consistent support to the counterpart. The ISRs reflected progress made by the project and were updated in a timely manner throughout the project period.



Justification of Overall Rating of Bank Performance

87. Based on the points above, the overall rating for World Bank Performance is **Satisfactory**.

D. RISK TO DEVELOPMENT OUTCOME

88. The overall risk to development outcome is Moderate. There is good evidence that the GoU is fully committed to maintaining development outcomes that have been achieved and that it is actively seeking approaches to minimize the political/governance and technical risks that were rated as substantial in the project's overall risk rating. For example, the Government's large-scale promotion of ECCE and recently approved "Promoting Early Childhood Development" project, along with the wide expansion of training on teacher classroom observation techniques using the TEACH instrument, represent clear examples of commitment to institutionalize project-supported interventions and sustain development objectives beyond the project. However, other interventions will require regular monitoring and adjustments, such as expanding the teacher training program to support teachers' use of technology in schools. Furthermore, the extended school closures induced by the outbreak of COVID-19 presents an unprecedented challenge for Uzbekistan, now that the MoPE has shifted to remote learning. While the MoPE's emergency response shows a commitment to timely action, important issues remain once schools reopen, such as how to accelerate learning, assess learning progress while schools were closed, and prevent school dropout, particularly among vulnerable students. These issues may take priority going forward. At the same time, the GoU will also face an economic slowdown in line with the global economic slowdown, creating an increasingly tight fiscal environment. This may limit the ability of the GoU to maintain development outcomes. However, the overall risk is considered Moderate since these risks do not significantly imperil the project's achievements or GoU commitment to sustaining those achievements.

V. LESSONS AND RECOMMENDATIONS

89. The project design reflected lessons learned from Bank-financed projects in the education sector, implemented both globally and in Uzbekistan, which contributed to the relatively smooth project implementation. There were also few lessons learned that are presented below.

Project-Specific Lessons Learned

90. **Lesson 1.** The project highlights the importance of the alignment and sequencing of hard and soft investments within a well-formulated theory of change. Component 1 on ECCE blended such investments seamlessly. Investments in materials and equipment were tied directly to investments in teacher training and communication campaigns to create a package of interventions at the local level that simultaneously addressed supply- and demand-side constraints to ECCE enrollment. For example, teachers were trained on child-centered learning practices and they were given the opportunity to develop those skills in pre-primary centers using storybooks, teaching aids, and equipment purchased through the project. This, combined with the home-based early reading initiative, produced a holistic intervention that changed behaviors at the local level. However, this blend of investments was more disjointed for Component 2 on general secondary education, which relied heavily on hard investments in ICT equipment. Although teachers did receive training on ICT, the scope of training was limited, and teachers interviewed for the ICR acknowledged that it was insufficient to address teachers' skills gaps and lack of comfort and familiarity with use of ICT equipment for instruction and planning.



91. **Lesson 2.** Teachers and school directors valued the objectivity provided by performance assessment tools supported by the project, particularly TEACH used in general secondary education and the MELE-derived instrument used to assess practices in ECCE. The movement towards more objective forms of performance assessment, supported by specific tools on which teachers received training, was appreciated by “on the ground” practitioners as a formative and non-threatening approach to support their work. Teachers had no such standardized tools or approaches prior to this project, and once they understood that such tools could be used to incorporate feedback and adjust methodologies into their daily routine, there was a high level of interest and excitement about how such tools could be used in practice.

92. **Lesson 3.** The project also provides a lesson on the value of continued engagement in the sector across multiple investment projects. Long-term engagement in the sector, with close alignment to the Government’s program of reforms, has facilitated implementation of key project interventions while also allowing for relatively quicker resolution of implementation issues.

General Lessons Learned

93. **Lesson 1: Low-cost provision of storybooks enhances wider interventions in early learning.** Provision of storybooks and other materials to support early reading at home and at school is a low-cost and simple intervention with multiple channels of positive impact, including supporting both mothers’ and fathers’ engagement in early literacy of their children, supporting development of reading skills in children too young to attend center-based preschool, and providing a link between the home and preschool environments. The placement of storybooks in the home and in the preschool lending libraries contributed to a holistic and child-focused intervention that creates unique opportunities for early stimulation and learning, particularly in poor rural and remote areas where it has the greatest impact on both learning readiness as well as equity.

94. **Lesson 2: ICT investments may be most beneficial as part of a holistic package of interventions aimed at enhancing teaching and learning.** Investments in ICT are critical for modernizing learning conditions for students and modernizing working conditions for teachers and school staff. However, information and assumptions regarding the use of ICT in schools should be clearly spelled out in the project’s theory of change. Governments and development partners supporting large-scale investments in ICT and educational technology should incorporate this information with a holistic package of interventions that target enhanced school-level instructional and managerial practices, using ICT investments to facilitate the change in practice.

95. **Lesson 3: Misalignment of the Bank’s and the Government’s project preparation cycles can create cumulative implementation delays.** Such misalignment in Uzbekistan was considered to be the major reason for delays in implementation of Bank-financed projects leading, inter alia, to longer time needed to achieve PDOs and deferred benefits. Early start of preparatory work including project feasibility studies, preparation of bidding documents and advancing procurement processes during project preparation is key to ensure readiness for project implementation.

96. **Lesson 4: Consistent leadership from the Bank can positively affect project outcomes.** Steady task team leadership from the World Bank side together with consistent availability of specialists based in Tashkent played a major role in the success of this project and was important for maintaining relationships and institutional memory for the project across multiple changes in government.

97. **Lesson 5: Flexibility in implementation arrangements built into the project design from the beginning help to accommodate unexpected challenges and adapt the project to changing circumstances.** This project was restructured



multiple times and activities were changed (though not substantially) along the way. Projects should be designed and implemented to incorporate changes, capitalize on opportunities, and troubleshoot along the way. This can be supported with a clear PDO and results framework, a well-defined implementation plan, and consistent implementation support at all stages of project preparation and implementation.



ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: To increase access of children aged 3-6 to quality ECCE in rural pre-primary institutions

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Increased percentage of children aged 3-6 enrolled in ECCE in rural areas of Uzbekistan	Percentage	8.50	13.10	15.00	28.30
		12-Aug-2013	31-Jan-2018	06-Sep-2016	31-Dec-2019

Comments (achievements against targets):

Target exceeded. The project's support for the ECCE half-day model in 2,420 rural pre-primary centers covered 92 percent of all rural pre-primary centers in Uzbekistan.

Objective/Outcome: To improve conditions for better learning outcomes in rural general educational secondary schools

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
----------------	-----------------	----------	-----------------	-------------------------	-------------------------------



Increased percentage of rural general educational secondary schools that meet minimum school standards	Percentage	44.80 12-Aug-2013	61.40 31-Jan-2018	63.00 06-Sep-2016	72.90 31-Dec-2019
--	------------	----------------------	----------------------	----------------------	----------------------

Comments (achievements against targets):

Target exceeded. The project supported purchase and distribution of ICT equipment and learning materials to 1,756 rural general educational secondary schools in order to meet minimum school standards. This comprised about 25 percent of all rural general secondary schools in Uzbekistan which now meet minimum school standards.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Results of students assessments in Mathematics and native language for grade 4 analyzed and publicly disseminated	Text	Results available for the 2nd round of assessment of 4th graders 12-Aug-2013	Results of students assessment in Math and native language for grade 4 analyzed and publicly disseminated 31-Jan-2018		Results of students assessment in Math and native language for grade 4 analyzed and publicly disseminated 31-Dec-2019

Comments (achievements against targets):

Target met. The standardized sample-based assessment of Grade 4 students in mathematics and language was conducted in May 2019 with 9,590 students across 80 schools in Uzbekistan. Results were analyzed and disseminated online through the MoPE website.



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Results of students assessment in Mathematics and native language for grade 9 analyzed and publicly disseminated	Text	Preparation of assessment of 9th graders 12-Aug-2013	Results of students assessment in Math and native language for grade 9 analyzed and publicly disseminated 31-Jan-2018		Results of students assessment in Math and native language for grade 9 analyzed and publicly disseminated 31-Dec-2019
<p>Comments (achievements against targets): Target met. The standardized sample-based assessment of Grade 9 students in mathematics and language was conducted in May 2019 with 9,590 students across 80 schools in Uzbekistan. Results were analyzed and disseminated online through the MoPE website.</p>					

A.2 Intermediate Results Indicators

Component: Component 1 - Improving Access to Quality Early Childhood Education Opportunities

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of children aged 3-6	Number	0.00	300000.00	500000.00	658082.00



benefitting from early reading activities in the home		12-Aug-2013	31-Jan-2018	06-Sep-2016	31-Dec-2019
<p>Comments (achievements against targets): Target exceeded. Age-appropriate storybooks in Uzbek, Russian, and Karakalpak were procured and distributed to the families of over 658,000 children in rural areas of Uzbekistan who are not enrolled in pre-primary schools.</p>					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Review of existing State requirements for pre-primary education	Text	State requirements for pre-primary education not submitted to specialized technical review 01-Jun-2016	State requirements for pre-primary education reviewed and recommendations provided to align them with international best practices 31-Jul-2019		State requirements for pre-primary education reviewed and recommendations provided to align them with international best practices 31-Dec-2019
<p>Comments (achievements against targets): Target achieved as of 2018, though achievement cannot be attributed to this project since the review of existing State requirements for preschool education was completed using funds from other sources.</p>					



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of small libraries established in project pre-primary education institutions	Number	0.00	1220.00	2420.00	2420.00
		12-Aug-2013	31-Jan-2018	06-Sep-2016	31-Dec-2019
<p>Comments (achievements against targets): Target achieved. Small lending libraries were established in all 2,420 beneficiary rural pre-primary centers, and were stocked with storybooks procured under the project. Libraries benefited all children in respective communities, including those enrolled in the ECCE half-day model as well as children not enrolled.</p>					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Establishment of a system to assess the school readiness of children aged 5-6 enrolled in the project half-day model	Text	Half-day students school readiness system not established	2nd assessment of half-day students readiness for school carried out, results compared and analyzed		Half-day students school readiness system not established
		12-Aug-2013	31-Jan-2018		31-Dec-2019
<p>Comments (achievements against targets):</p>					



Target not achieved. A system for assessing half day students' readiness for school was not established as initially envisioned under this project, due to an initial focus on general secondary education by MoPE and subsequent delays caused by the organizational split of MoPE and creation of the MPSE. However, this will be supported through the follow-up operation.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of children aged 5-6 enrolled in the project half-day model	Number	0.00	50000.00	98000.00	98855.00
		12-Aug-2013	31-Jan-2018	06-Sep-2016	31-Dec-2019
Number of female children aged 5-6 enrolled in the project half-day model	Number	0.00	25000.00	49000.00	51419.00
		12-Aug-2013	31-Jan-2018	06-Sep-2016	31-Dec-2019

Comments (achievements against targets):

Target exceeded. 98,855 children were enrolled as direct beneficiaries of the project-supported ECCE half-day model in 2,420 rural pre-primary centers in Uzbekistan.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of children benefitting from better equipped pre-primary	Number	0.00	62000.00	120000.00	123280.00
		12-Aug-2013	31-Jan-2018	06-Sep-2016	31-Dec-2019



schools that implement the half-day model (aside from children enrolled in the project half-day model)					
Number of girls benefitting from better equipped pre-primary schools that implement the half-day model (aside from girls enrolled in the project half-day model)	Number	0.00 12-Aug-2013	31000.00 31-Jan-2018	60000.00 06-Sep-2016	63119.00 31-Dec-2019
<p>Comments (achievements against targets): Target exceeded. Children enrolled in the full-day program in rural pre-primary schools which were equipped under the project also benefited from many project-supported investments, including the small lending libraries as well as recreation and sports equipment and teaching and learning materials.</p>					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of pre-primary education teachers trained to deliver the project half-day model	Number	0.00 12-Aug-2013	2000.00 31-Jan-2018		4014.00 31-Dec-2019
Number of female pre-primary education teachers trained to deliver the	Number	0.00 12-Aug-2013	1910.00 31-Jan-2018		4014.00 31-Dec-2019



project half-day model

Comments (achievements against targets):

Target exceeded. Over 4,000 pre-primary education teachers (all female) working in rural pre-primary centers were trained on the ECCE half-day model, specifically only child-centered pedagogical approaches to implement the half-day model.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Increase in the share of project half-day model teachers demonstrating mastery of key concepts of ECCE and child-centered teaching	Percentage	0.00 12-Aug-2013	20.00 31-Jan-2018		0.00 31-Dec-2019

Comments (achievements against targets):

Target cannot be verified. This indicator was measured through an assessment of pre-primary teachers trained under the project on the half-day ECCE model, across 39 randomly selected preschool classrooms in 13 regions of Uzbekistan. The assessment involved a classroom observation tool and a self-reflection tool, drawing extensively on constructs of the 'Measuring Early Learning Environments' (MELE) program. The assessment concluded that of all teachers observed, 59.9% used play-based and child-centered practices mostly or all the time, demonstrating clear mastery of key concepts of ECCE and child-centered learning. However, there was no baseline measurement or control group so achievement cannot be verified.

Component: Component 2 - Improving Conditions for Better Learning Outcomes in General Educational Secondary Schools



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of teachers and school managers trained in advanced areas of teaching and education management developed by the project	Number	0.00	200000.00		200271.00
		12-Aug-2013	31-Jan-2018		30-Dec-2019

Comments (achievements against targets):

Target exceeded. 191,743 teachers and 8,528 managers in general secondary education schools were trained in selected areas of high demand accordingly to newly developed modules for teacher training.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of newly developed training modules	Number	0.00	6.00		6.00
		12-Aug-2013	31-Jan-2018		31-Dec-2019

Comments (achievements against targets):

Target achieved. Newly developed training modules covered six high-priority areas for teacher training: education management, pedagogical techniques and methodology, ICT and distance learning, inclusive education, foreign language teaching, and labor protection and awareness regarding child and forced labor.



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of master trainers providing training in new areas of education management and teaching and learning	Number	0.00 12-Aug-2013	192.00 31-Jan-2018		192.00 31-Dec-2019
Comments (achievements against targets): Target achieved. 192 master trainers across Uzbekistan's 16 in-service teacher training institutions were trained on the six designated modules and provided cascade training for teachers and school managers.					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Increase in the share of trained general secondary education teachers using pedagogical practices developed/upgraded by the project in the classroom	Percentage	0.00 12-Aug-2013	20.00 31-Jan-2018		0.00 31-Dec-2019
Comments (achievements against targets): Target not achieved. This indicator was measured through a classroom observation study using the TEACH open portal classroom observation tool in 80 primary school classes (Grades 1-6) in Tashkent City, Sydaryo, and Jizzakh regions. The classroom observation study compared teachers who had been					



trained under the project against 'untrained' teachers on several criteria related to improved pedagogical practices in line with teacher training. However, no significant improvement in pedagogical practices was observed in teachers who had been trained under the project. However, there are two possible explanations for this: (i) insufficient time between the teacher training and the classroom observation study, and (ii) insufficient quality or 'intensity' of delivered training using the cascade model approach.

Component: Component 3 - Strengthening the Capacity to Monitor the Education System

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
System for learning assessment at the primary level	Text	System to be revised 12-Aug-2013	System in place 31-Jan-2018		System in place 31-Dec-2019

Comments (achievements against targets):

Target achieved (core indicator). With project support, the MoPE implemented a system for learning assessment at the primary level by conducting the standardized and sample-based assessment of Grade 4 students in mathematics and language.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Number of representatives of MoPE and Province and Distric Education Departments trained in	Number	0.00 12-Aug-2013	832.00 31-Jan-2018		1065.00 31-Dec-2019



monitoring and evaluation activities supported by the project					
---	--	--	--	--	--

Comments (achievements against targets):

Target exceeded. 1,065 staff of the MoPE and oblast/rayon education departments were trained in overall principles of and practices for standardized assessment of learning outcomes and monitoring of education quality.



B. KEY OUTPUTS BY COMPONENT

Objective/Outcome 1	
Outcome Indicators	<p><i>To increase access of children aged 3-6 to quality ECCE in rural pre-primary institutions</i></p> <p>PDO 1: Increased percentage of children aged 3-6 enrolled in ECCE in rural areas of Uzbekistan</p>
Intermediate Results Indicators	<ol style="list-style-type: none"> 1. Number of children aged 3-6 benefitting from early reading activities in the home <i>Number of girls aged 3-6 benefitting from early reading activities in the home</i> 2. Number of small libraries established in project pre-primary education institutions 3. Establishment of a system to assess the school readiness of children aged 5-6 enrolled in the project half-day model 4. Number of children aged 5-6 enrolled in the project half-day model <i>Number of girls aged 5-6 enrolled in the project half-day model</i> 5. Number of children benefitting from better equipped pre-primary schools that implement the half-day model (aside from children enrolled in the project half-day model) <i>Number of girls benefitting from better equipped pre-primary schools that implement the half-day model (aside from girls enrolled in the project half-day model)</i> 6. Number of pre-primary education teachers trained to deliver the project half-day model 7. Increase in the share of project half-day model teachers demonstrating mastery of key concepts of ECCE and child-centered teaching 8. Review of existing State requirements for pre-primary education
Key Outputs by Component (linked to the achievement of the Objective/Outcome 1)	<ul style="list-style-type: none"> • 2,420 rural pre-primary centers delivering the half-day ECCE program have received project-financed investments in teaching and learning materials, furniture, and recreation/sports equipment • 2,420 rural pre-primary centers have established small lending libraries equipped with storybooks



	<ul style="list-style-type: none"> • 4,014 teachers trained to implement the half-day ECCE model according to child-centered approaches to early learning • 658,082 children received storybooks to support the home-based early reading initiative
Objective/Outcome 2	
Outcome Indicators	<p><i>To improve conditions for better learning outcomes in rural general educational secondary schools</i></p> <p>PDO 2: Increased percentage of rural general educational secondary schools that meet minimum school standards</p> <p>PDO 3: Results of students assessments in Mathematics and native language for grade 4 analyzed and publicly disseminated</p> <p>PDO 4: Results of students assessment in Mathematics and native language for grade 9 analyzed and publicly disseminated</p>
Intermediate Results Indicators	<ol style="list-style-type: none"> 1. Number of teachers and school managers trained in advanced areas of teaching and education management developed by the project 2. Number of newly developed training modules 3. Number of master trainers providing training in new areas of education management and teaching and learning 4. Increase in the share of trained general secondary education teachers using pedagogical practices developed/upgraded by the project in the classroom 5. System for learning assessment at the primary level 6. Number of representatives of MoPE and Province and District Education Departments trained in monitoring and evaluation activities supported by the project
Key Outputs by Component (linked to the achievement of the Objective/Outcome 2)	<ul style="list-style-type: none"> • 1,756 rural general secondary education schools equipped with ICT equipment for computer labs, including student and teacher computers, printers, interactive smartboards, air conditioning units, and associated equipment



- 6 new teacher training modules were developed on high-need topics including education management, teaching methods and methodical support, ICTs and distance education, inclusive education, foreign language training, and labor protection and awareness regarding child and forced labor
- 230 agencies involved in education quality monitoring have received videoconferencing equipment and/or ICT equipment, including MoPE, all 15 INSET institutions, and all 14 region and 200 district education departments
- 192 master teacher trainers were trained on the 6 new training modules
- 200,271 general secondary education teachers and managers (191,743 teachers and 8,528 managers) were trained by master teacher trainers on the 6 new training modules
- 1,756 teachers in rural general secondary education schools (1 from each beneficiary school) have been trained in the utilization of modern ICT equipment and technology in classrooms
- 20 master trainers were trained in the usage of the TEACH classroom observation tool
- 4 standardized learning assessments (for Grades 4 and 9 in mathematics and native language) were developed and implemented, with results later analyzed and disseminated
- 9,590 students of 80 general secondary education schools were tested in mathematics and native language
- 1,065 staff of MoPE, Province, and District Education Departments were trained in overall principles of and practices about standardized assessment of learning outcomes and monitoring of education quality



ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Janssen Edelweiss Nunes Teixeira	Task Team Leader
Fasliddin Rakhimov	Procurement Specialist
Sujani Eli	Program Assistant
Gabriel Francis	Program Assistant
Saodat Bazarova	Senior Operations Officer
Naveed Hassan Naqvi	Lead Education Economist
Sachiko Kataoka	Education Economist
Jasna Mestnik	Finance Officer
Amanda Epstein Devercelli	Early Childhood Specialist
Antonio Cristian D'Amelj	Counsel
Mark Woodward	Lead Social Development Specialist
Tatyana Shin	Education Specialist
Nasiba Usmanova	Program Assistant
Supervision/ICR	
Janssen Edelweiss Nunes Teixeira	Task Team Leader
Fasliddin Rakhimov	Procurement Specialist
Nurbek Kurmanaliev	Procurement Specialist
Djamshid Iriskulov	Financial Management Specialist
Rumiya Garipova	Program Assistant
Kristine Schwebach	Social Specialist
Sujani Eli	Program Assistant
Saodat Bazarova	Senior Education Specialist
Sevara Abdusamatova	Procurement Assistant



Anara Akhmetova	Procurement Assistant
Anne N. Ranasinghe	Procurement Assistant
Mohammad Ilyas Butt	Procurement Analyst
Qing Wang	Senior Environmental Specialist
Jasna Mestnik	Finance Officer
Robert Wrobel	Senior Social Development Specialist
Nina Kolybashkina	Senior Social Development Specialist
Julia Liberman	Operations Officer
Nodira Meliboeva	Education Specialist
Aimonchok Tashieva	Social Development Specialist

B. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US\$ (including travel and consultant costs)
Preparation		
FY13	11.350	128,514.54
FY14	11.375	108,169.46
FY15	6.745	34,502.51
FY16	1.550	12,043.81
FY17	0	0.00
FY18	0	481.00
Total	31.02	283,711.32
Supervision/ICR		
FY15	9.200	82,978.82
FY16	42.012	226,011.82
FY17	34.119	136,351.65
FY18	38.661	150,302.40
FY19	3.500	97,982.81



FY20	.325	7,069.28
Total	127.82	700,696.78



ANNEX 3. PROJECT COST BY COMPONENT

Components	Amount at Approval (US\$M)	Actual at Project Closing (US\$M)	Percentage of Approval (US\$M)
Component 1 - Improving Access to Quality Early Childhood Education Opportunities	20.70	21.76	105.1 percent
Component 2 - Improving Conditions for Better Learning Outcomes in General Educational Secondary Schools	23.12	22.15	95.8 percent
Component 3 - Strengthening the Capacity to Monitor the Education System	6.08	5.54	91.1 percent
Total	49.90	49.45	99.1 percent



ANNEX 4. EFFICIENCY ANALYSIS

The project did not include a formal cost-benefit analysis when it was prepared and appraised. However, the authors relied heavily on in-depth sector work on ECCE in Uzbekistan prepared just prior to the project. This sector work assessed the economic implications and anticipated cost savings of expanding access to ECCE through the half-day model, considering staff salaries, working hours, enrollment size, monthly income and expenditures, and prevailing fee structures for ECCE in Uzbekistan. Additionally, the project team thoroughly evaluated international evidence available on the cost-effectiveness of both preschool and general secondary education investments and the impacts on learning outcomes at later stages. The PAD detailed the benefits from investing in ECCE and general secondary education and used evidence from Uzbekistan (including UNICEF surveys and MICS) and from other countries, including PISA 2009 results and research evidence suggesting that schools must have a minimum level of resources in order to achieve results, even if the link between specific inputs and learning outcomes is difficult to identify causally.

Efficiency of ECCE Investments (Component 1)

ECCE and foundational skills have been proven to be among the most cost-effective investments in human capital. A substantial body of evidence from around the world shows that early childhood (ages 0-6) is a critical period in a child’s physical, cognitive, linguistic, and socioemotional development. Investments that nurture early learning and cognitive development have lasting positive private and social benefits including educational attainment, health, fertility, and earnings later in life. The return in terms of national productivity to a dollar of investment made while a person is young is estimated to be between US\$7 and US\$16, and higher than the rate of return to the same dollar invested at a later age.²² These higher returns are partly due to the finding that cognitive skill, which influences achievement levels over schooling, is more malleable at younger ages and that younger learners will use their skills over a longer period of time.

The project’s support to develop and implement the half-day model of ECCE, which was substantially more economically efficient than the full-day model, allowed the GoU to sustainably expand access to quality pre-primary education and transition from a model oriented around childcare to a more effective model prioritizing school readiness. A major rationale for the half-day ECCE model was that it required fewer public resources per child compared to the standard full-day program, while still offering sufficient time for children to experience cognitive gains needed for school readiness. The estimated cost savings from implementing the half-day model were substantial: the GoU financed half-day teacher salaries during the project life, which allowed the GoU to reach up to twice as many children with the same expenditure on teacher salaries, as children are only in school for half of the day. Salaries for half-day teachers were estimated to be 44 percent less than salaries for full day teachers, and the use of shifts for the half-day model allowed for more efficient use of the ECCE facilities.

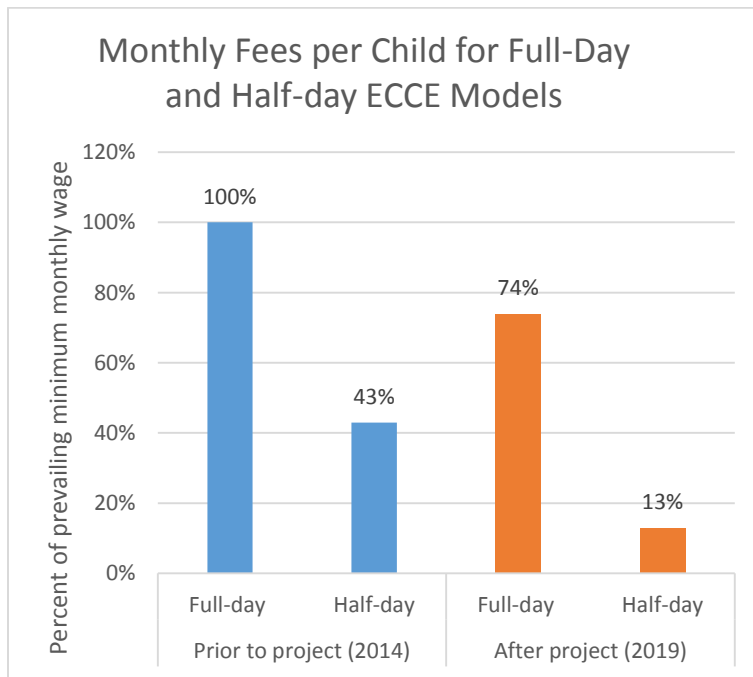
Projected Cost Savings from Teacher Salaries: Half-day versus Full-Day Model of ECCE				
	Year 1	Year 2	Year 3	Total

²² Extensive research literature is cited in PAD and World Bank (2013) “Improving ECCE in Uzbekistan”



Number of children beneficiaries	4,500	21,100	24,400	50,000
Number of teachers needed per year	500	2,000	2,000	4,500
Project scenario: Half-day teacher salaries	\$597,353	\$2,429,234	\$2,429,234	\$5,455,822
Counterfactual scenario: Full-day teacher salaries	\$896,028	\$3,584,112	\$3,584,112	\$8,064,252
Cost savings from half-day salaries	\$298,675	\$1,154,877	\$1,154,877	\$2,608,430

The project also created cost savings to parents, thereby helping to increase parental demand for ECCE. Fees were lower for the half-day model (US\$13 per child per month, compared to US\$30 per child per month, equivalent to 100% of the minimum wage when the project was approved). However, as the Government expanded the half-day ECCE model over time (particularly after 2017 when the GoU launched its nationwide preschool expansion program), the fee differential grew further, with the per-student fee of the half-day model becoming even more affordable for families. Prior to the project, the half-day fee comprised 43 percent of the full-day fees; by 2019, the half-day fee comprised only 18 percent of the full-day fees. The half-day fees also declined from 43 percent of the minimum wage in 2011 to about 13 percent of the minimum wage as of 2019 (see figure below). In total, cost savings from the half-day model included at least US\$3.6 million to the government and US\$10.4 million to parents over 3 years. However, the actual savings resulting from the project were larger given that the half-day model was expanded both as a result of the project and because the GoU further scaled up the model.



Note: Minimum monthly wage prior to the project is from 2011 and after the project is from 2018.
Source: World Bank (2013) and World Bank (2018b)

Finally, the costs for furnishing and equipping pre-primary centers are with the range of other similar projects. This project provided pre-primary centers with a standard package of classroom furniture, outdoor and indoor recreation equipment, and teaching and learning materials which benefited students in the half-day program as well as other students in the full-day program but attending the same pre-



primary center. In this project, the direct cost per center is approximately US\$5,748. This is higher than a similar program in the Kyrgyz Republic where the cost per community-based kindergarten totaled US\$1,689, though the program in Kyrgyz Republic included mostly furniture and basic equipment, whereas this project provided substantially more in the way of recreational and didactic equipment.²³ However, the cost per center is substantially less than in another similar project in Mongolia where furniture, equipment, and appliances amounted to approximately US\$26,000 per center, driven by the higher cost of service delivery and transport in Mongolia.²⁴

Efficiency of General Secondary Education Investments (Component 2)

After pre-primary education, returns to basic education (general secondary education in Uzbekistan) were highest in Asia at the time the project was prepared, lending further justification to the project’s interventions as an economically efficient use of resources. However, evidence shows that this has changed over time, with tertiary education now yielding the highest returns, though a separate tertiary education operation (*Modernizing Higher Education Project*, P128516) was approved in 2016 to support this level of education.²⁵

Returns to Investment in Education by Level (circa 2002 or latest year), regional averages (percentage)

Region	Social			Private		
	Primary	Secondary	Higher	Primary	Secondary	Higher
Asia*	16.2	11.1	11.0	20.0	15.8	18.2
Europe/Middle East/North Africa*	15.6	9.7	9.9	13.8	13.6	18.8
Latin America/Caribbean	17.4	12.9	12.3	26.6	17.0	19.5
OECD	8.5	9.4	8.5	13.4	11.3	11.6
Sub-Saharan Africa	25.4	18.4	11.3	37.6	24.6	27.8
World	18.9	13.1	10.8	26.6	17.0	19.0

Source: Patrinos and Psacharopoulos (2002).
*Non-OECD

According to project financial reports and audits, the project spent US\$19.9 million on sub-component 2.2 (‘supporting implementation of minimum school standards’), with the vast majority of this funding going towards ICT equipment for computer labs and digital teaching and learning materials. This amounted to 93 percent of all funds spent on Component 2 and 41 percent of project funds in total. However, as shown in the table below, the financial efficiency of this large expenditure needs to be assessed against the number of beneficiaries and expected impact in terms of learning. Compared to a similar project in Guangdong, China which also invested in a similar package of ICT investment, the Uzbekistan GPE project was substantially more efficient based on unit costs for ICT equipment. The Uzbekistan GPE project’s average unit cost for ICT equipment in general secondary schools was approximately US\$188 per unit, compared with over US\$700 per unit in the comparator project.²⁶

²³ World Bank (2018c).

²⁴ World Bank (2015).

²⁵ Montenegro & Patrinos (2014); Patrinos (2016)

²⁶ Based on data provided in the ICR for the Guangdong Technical and Vocational Education and Training Project, dated June 2015.



Cost of ICT equipment and digital teaching and learning materials	US\$19.9 million
Beneficiary Schools	1,756 schools
ICT Equipment cost per school	US\$11,333 per school on average
Average unit cost for ICT equipment in computer class set*	US\$188 per unit
Average enrollment in rural general secondary education schools (MoPE 2018)	435 students
Estimated total number of beneficiaries from ICT investments	765,616 beneficiaries - 763,860 students, calculated as 435 students across 1,756 schools - 1,756 teachers, one per school which is a conservative estimate
Cost of ICT investments per beneficiary	US\$26

*Note: ICT computer class equipment package per school included 1 teacher computer and display, 15 student computers and displays, 5 power distribution units, 16 UPS, 1 regulator, 1 printer, and 1 interactive LED smartboard.

Systematic evaluations of education interventions in developing countries suggest that improving school facilities and ICT equipment has positive impacts on student learning, but cost effectiveness is moderated by how ICT equipment in schools is used. Upgrading school infrastructure such as teaching materials and ICT can help raise student outcomes by encouraging students to learn and by supporting teachers to make their teaching more effective for learning.²⁷ However, cost effectiveness of ICT investments is offset by two key considerations: the relatively low investments in teacher training activities linked to ICT, and the limited evidence that ICT equipment is being used to enhance classroom practices. While 93 percent of Component 2 funds went to ICT investments, only 6% went to teacher training activities for teachers and school managers. This raises questions as to whether the mix of interventions under this component achieved value for money. The PAD acknowledged that “teachers have been shown to be the greatest determinant of learning outcomes at the school level, more so than inputs” and “evidence on the link between student achievement and ICT is mixed,” but that “ICT equipment can create learning gains ... when computer use is directly linked to pedagogy.” Although one of the teacher training modules did focus on ICT, there is limited evidence that this training was sufficient to enhance classroom practices. Since effectiveness of ICT investments depends on teachers’ knowledge and skill to put those investments into action in their pedagogy, and the ICT investments constituted such a large share of the component’s monetary value, the project’s relatively lower emphasis on teacher training activities has the effect of lowering the overall cost effectiveness of this Component.

Another important factor that enhances the efficiency of spending on minimum school standards is the Government’s decision during project implementation to extend general secondary education from 9 to 11 years of schooling. Until 2017, general secondary education consisted of nine years of compulsory education (grades 1-9), but the Government has transitioned to a system of 11 years of compulsory general secondary education. This means that in rural areas, where there are fewer options for vocational

²⁷ Glewwe, Hanushek, Humpage & Ravina (2013); McEwan (2015); McEwan (2014); Krishnaratne, White and Carpenter (2013); Cawthera (2001)



schools and academic lyceums, many students will have the option to remain in their general secondary schools for two additional years of study. This system reform will further enhance the efficiency of spending on ICT investments because general secondary schools will enrol 11 grades of students, rather than 9 grades, meaning that the unit cost per beneficiary student will continue to decline.

Efficiency of Design and Implementation

A final note on efficiency refers to the value-added of Bank support and efficiency of project supervision and implementation. The World Bank group has a great deal of experience with general secondary education, teacher training, and the use of ICT in classrooms, both within Uzbekistan and elsewhere. As such, it is uniquely positioned to provide technical support and share evidence on innovative best practices in these key areas such as ICT equipment and teacher training to use the ICT equipment effectively. Additionally, the project was task managed by the same TTL over its duration, who also led other parallel activities in Uzbekistan at the time. This significantly minimized transition and handover time, while also allowing the Bank team to economize on resources and subsidize variable costs in an efficient manner. Furthermore, despite some transition within the MoPE and the PIU, the overall high level of sustainability of the PIU team over time further contributed to an efficient pace of implementation, particularly vis-à-vis other projects in Uzbekistan at the time. Also, the PIU’s strong degree of procurement and financial management capacity facilitated efficient implementation of the project, particularly once the project scope was expanded and procurement activities were repeated.

Summary of Efficiency Analysis	
<i>Topic</i>	<i>Rating</i>
Component 1 (ECCE)	High Efficiency , exceeding expectations for sector
Component 2 (General Secondary Education)	Substantial Efficiency , consistent with expectations for sector
Overall Design and Implementation	Substantial Efficiency , consistent with expectations for sector



ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS



ANNEX 6. SUPPORTING DOCUMENTS

Ajwad, M. I. et al. (2014). "The Skills Road: Skills for Employability in Uzbekistan." Washington, DC: World Bank.

Center for Economic Research (2015). Millennium Development Goals Report: Uzbekistan 2015. Prepared with assistance of United Nations Office in Uzbekistan.

GoU (2013). *Republic of Uzbekistan: Education Sector Plan for 2013-2017*. Tashkent.

GoU (2018). *Education Sector Plan (ESP) of Uzbekistan 2019-2023*. Tashkent.

GoU (2019). Parents Fees for Preschools Funded under State Budget for 2019 (effective May 2019).

MoPE (2019). Project Implementation and Completion Report: Improving Pre-Primary and General Secondary Education Grant No. TF 018066. Ministry of Public Education (MoPE), Republic of Uzbekistan. Tashkent, December 2019.

Sadikova and Le Mottee (2020). "Measuring Changes in ECE Teacher Practices in Newly Introduced Half-Day Model."

Teixeira, Janssen Edelweiss Nunes. (2015-2019). *Disclosable Version of the ISR – Improving Pre-Primary and General Secondary Education Project – P144856 – Sequence No. 01-09*. Washington, DC: World Bank Group.

UNESCO (2015). National Review of the Republic of Uzbekistan on Achievements of the Education for All Goals – 2015. UNESCO Tashkent Office.

World Bank (2011). Country Partnership Strategy for the Republic of Uzbekistan for the Period FY12-15. Report No. 65028-UZ.

World Bank (2013). Republic of Uzbekistan: Improving Early Childhood Care and Education. Report No. 71930-UZ. Washington, DC: World Bank.

World Bank (2014). "Project Appraisal Document on a Proposed Grant in the Amount of US\$49.9 million to the Republic of Uzbekistan for the Improving Pre-Primary and General Secondary Education Project." Education Global Practice, Europe and Central Asia Region.

World Bank (2015). Implementation Completion and Results Report on a Global Partnership for Education Fund Grant in the Amount of US\$10 Million to Mongolia for an Early Childhood Education Project. Report No. ICR00003529.

World Bank (2016.) Systematic Country Diagnostic for Uzbekistan. Report No. 106454. Washington, DC: World Bank.



World Bank (2016). Country Partnership Framework for Uzbekistan for the Period FY16-FY20. Report No. 105771-UZ. Washington, DC: World Bank.

World Bank (2018a). Uzbekistan Education Sector Analysis: Final Report. Report No. AUS0000586. Washington, DC: World Bank.

World Bank (2018b). Growth and Job Creation in Uzbekistan: An In-Depth Diagnostic. Macroeconomics, Trade and Investment Global Practice.

World Bank (2018c). Implementation Completion and Results Report on a Grant in the Amount of US\$12.7 Million to the Ministry of Finance of the Kyrgyz Republic for the Kyrgyz Global Partnership for Education (GPE) – 3. Report No. ICR00004616.

World Bank (2019a). “Project Appraisal Document on a Proposed Credit and Proposed Grants from the Global Partnership for Education and the Global Partnership for Results-Based Approaches to the Republic of Uzbekistan for Promoting Early Childhood Development Project.” Education Global Practice, Europe and Central Asia Region.

World Bank (2019b). *Uzbekistan – Toward a New Economy: Country Economic Update (English)*. Washington, DC: World Bank Group.



MAP

