Evaluation Report
2016-07

Ex-post Evaluation of the Informatization of General Education Schools Project in Uzbekistan

The Export-Import Bank of Korea

(Government Agency for EDCF)

EDCF Evaluation Team

(Evaluated by Sangmyung University,
Cheonan Council for Industry Academic Cooperation)

The evaluation was entrusted to Cheonan Council for Industry Academic Cooperation of Sangmyung University by EDCF for the purpose of an independent evaluation. The opinions, findings and conclusion or recommendations expressed in this report are those of the external evaluator and do not necessarily reflect the views of EDCF.

Ⅰ. Project Overview

1. Project Details

☐ Name of Project: Informatization of General Education Schools

☐ Name of Borrower: The Ministry of Finance of Uzbekistan

☐ Project Executing Agency: The Ministry of Public Education of Uzbekistan

☐ Requested Loan Amount: USD 30 million

2. Project Purpose

☐ The project aimed to achieve the following three purposes: first, the expansion of Uzbekistan's ICT education program; second, informatization and supply of human resources; and third, provision of a basis for successfully reforming Uzbekistan's education by drawing on Korea's own experience of education informatization and technological resources.

3. Project Scope

☐ The project's scope is listed in Table 1 below.

Table 1 Scope of the Project

Type	Outcome
ECCs and relevant tools and materials	218 extra ECCs were added: 1,770 primary and secondary schools across Uzbekistan
MCDCs	Studios, centre for contents development, server rooms, offices and seminar rooms
Establishment of educational e-portal	Purchase of HW (routers, switches, security equipment, various types of servers and UPSs) and SW (SAN storages, RDBMS, O/S, ISA license)
Dispatching of 10 experts	Project preparation check (2), on-site inspection (1), contents development (3), operational strategy development (1), and invitational workshop development (3)
Workshops in Korea for 48 officials	Government officials (5), contents developers (8), contents managers (3), contents system managers (4), local centre managers (28) Period: 100 days

Source: EDCF's Informatization of General Education Schools Completion Report (2013)

Ⅱ. Summary of Evaluation

1. Purpose of Evaluation

□ This ex-post evaluation aimed to assess the mid- to long-term performance of the Informatization of General Education Schools Project in Uzbekistan. The result of this evaluation was expected to contribute to the improvement of future projects. The Cheonan Council for Industry Academic Cooperation of Sangmyung University performed the evaluation as an independent external evaluation team. The evaluation took place over a period of eight months.

2. Methods of Evaluation

□ The questions developed by the evaluation team are derived from the five evaluation criteria suggested by the OECD DAC: (i) relevance, (ii) efficiency, (iii) effectiveness, (iv) impact and (v) sustainability, as well as cross-cutting issues, such as gender inequality.

□ The evaluation team reviewed publications on the Uzbekistan's IT-based education policies and strategies made by the Economic Development Cooperation Fund (EDCF), Korea Education & Research Information Service (KERIS), Asian Development Bank (ADB), and the Government of Uzbekistan.

□ Two-stage field visits were carried out in eight primary and secondary schools to observe the Educational Computer Classes (ECCs) in use. Additionally, the evaluation team conducted several interviews with both students and teachers, to find out to what extent the usage of computers in schools had contributed to information accessibility. Interviews were also conducted with the officials of the Ministry of Public Education, the Multimedia Contents Development Center (MCDC), ADB, as well as project participants from KT.

Ⅲ. Results of Evaluation

□ Table 2 contains the summary of the evaluation result. The project was rated 3.76 out of 4.0, recognized as a highly successful project.

Table 2 Evaluation Results

Evaluation Criteria	Relevance	Efficiency	Effectiveness	Impact	Sustainability	Total Score
Score (-/4.0)	4	3.3	4	3.5	4	**3.76**

1. (Relevance) The project was implemented as part of the ICT and education development policies of the Government of Uzbekistan. Furthermore, there was a significant shortage of educational resources for effective ICT education in schools. Therefore, this project was deemed highly relevant.

□ Before the launch of the project, the Uzbekistan government already had several strategies for conducting ICT education and using ICT in education. In the "Welfare Improvement Strategy Paper of the Republic of Uzbekistan for 2005-2010," the government made commitment to strengthen and further develop the material-technical basis of schools and to provide primary schools with modern learning and laboratory equipment as well as computers.

□ By the end of 2005, the ratio of primary and secondary schools equipped with computer classrooms in all of Uzbekistan stood at only 18%. Moreover, the computers on hand were often outdated and not conducive to establishing an effective ICT education environment. As a result, the Uzbekistan government proposed plans to improve the ratio of students per computer from 110 to 20 students per computer over the period of eight years from 2002 to 2010.

2. (Efficiency) The expansion of the project's scope slightly delayed the completion of the project. The expansion was made due to the request of the Uzbekistan government, increasing the number of ECCs from 1,552 to 1,770.

□ The expected duration of the project was from July 2009 to January 2012. The project was completed 3 months behind the schedule. The government of Uzbekistan requested the scope to be expanded (1,770 ECCs instead of 1,552), which caused the delay in the completion of the project. However, this additional work was completed without further provision of EDCF funds and

also enhanced the project's effectiveness. Hence, the increased expenditure and duration was justifiable.

□ During the project, ADB was also implementing the "Information and Communications Technology (ICT) in Basic Education Project." In short, the ADB project focused on a smaller number of schools, selecting so-called cluster leader schools to serve as venues for teachers in the region to receive education. The ADB project trained local teachers while EDCF's project supplied necessary infrastructure for providing ICT education. These two projects were complementary to each other.

3. **(Effectiveness)** The MCDC and ECCs were successfully established, facilitating contents development and distribution as well as IT-based education for teachers and students.

□ Infrastructure: The project provided ECCs to 17 percent of primary and secondary schools nationwide (1,770 schools). Considering that only 73.4 percent of schools in Uzbekistan had ECCs, the project supplied 25 percent of ECCs. The project contributed, therefore, to the development of informatization infrastructure in the education sector. However, the number of students per computer was still low since there were only 15 computers in each ECC.

□ Contents: The newly established MCDC now plays a considerable role in developing and supplying educational materials to teachers in Uzbekistan. It has produced CDs with educational materials for each subject for teachers and students to use. A total of 540 contents were developed by June 2016.

□ Information Service: As a result of the e-portal service, 700 e-textbooks were developed. Moreover, since the opening of the MCDC, an additional 400 education materials have been disseminated.

□ Teacher Training: The MCDC has been conducting ICT-based education training seminars for teachers. Trained teachers lead ICT seminars for teachers in need of training, 72 hours per year being the minimum amount of basic IT-related training every teacher should receive. In addition, various seminars and supplementary training related to ICT-based education are being offered. The number of teachers benefiting from the programs has increased from 28 in 2011 to 1060 in 2016, while the quality of the programs' contents has also been improved.

4. **(Impact)** As a result of this project, teachers and students have been able to improve their ICT competencies. Furthermore, the project resulted in better educational opportunities, with benefits especially in English lessons for primary school students.

   □ The main use of ECCs is during practical sessions in Informatics for students in grades 5 and up. ICT sessions are held for 17 hours per year from 5th to 7th grade, and 34 hours per year from 8th to 9th grade.

   □ Before the introduction of ECCs, Informatics classes were based largely on theoretical contents. This approach is still used in schools that are without ECCs. Since ECCs allow students to apply their theoretical knowledge to actual computers, the project significantly increased the effectiveness of ICT education.

   □ The EDCF project, along with other projects implemented by the ADB, the Export-Import Bank of China, and other parties, contributed to the development of IT-based education in Uzbekistan. Thanks to the introduction of multimedia-based classes, English lessons started to be offered to students in lower grades at primary schools more effectively than before.

   □ All ECCs are equipped with 15 computers regardless of the number of students in school. Therefore, it is probable that the ratio of students per computer largely differs among the schools; students in smaller schools have longer hours to use computers than those in larger schools. Thus, the impact of introducing ECCs may vary depending on the size of school, with some students benefitting more than others.

   □ The e-portal service allows teachers to download multimedia contents to be used in the teaching of a variety of subjects. In order to overcome restricted internet access in some areas of the country, CDs compiled by the MCDC were distributed. Moreover, the developed contents are not yet available in all of the official languages used in Uzbekistan. This may lead to different levels of effectiveness in education.

5. **(Sustainability)** The financial sustainability of the ECCs and MCDC was rated highly since the Uzbekistan government pledged to continue to provide monetary assistance to the management of the MCDC. Moreover, new resources and contents are continually being developed via the e-portal system, ensuring the sustainability of the impact of the MCDC and ECCs.

☐ The government's expenditure on the MCDC has steadily increased to support the contents development for education, training programs for teachers, and facilities maintenance. Compared to 2011 when a total of 24 staff with higher education worked at the MCDC, there were 26 people employed in 2016. The staff's responsibilities include system operation, contents development and maintenance operations.

☐ The budget allocated to maintenance and repair of facilities has been steadily increasing. When schools need external assistance with their facilities, the MCDC is responsible for all such operations in the Tashkent area, while schools in the country can call on their local Education Office for assistance.

☐ The Republic of Korea and Uzbekistan have an arrangement for capacity building in the ICT education sector through various channels. For instance, the Seoul Metropolitan Office of Education and the Tashkent Board of Education signed an MoU for annual training courses for ten Uzbekistan teachers in Korea.

☐ The MCDC is expected to play a big role in developing and providing various materials for ICT-based education. It has been developing educational contents, and suppling them to schools in various ways such as creating compact discs and uploading them to the e-portal service website.

☐ There are concerns raised about the deterioration of the computers provided because the computers have already been in use for six years. However, there are plans by the Uzbekistan government of a second project for ICT-based education. Through the follow-up project, facilities are expected to be supplemented and renewed by the government.

☐ The Ministry of Education is developing various education-related websites and systems which provide educational information, such as Web-MAKTAB. The developed websites and systems will help people access various information on the informatization of education, such as related resources on law, administration, and training and textbook development. It is expected to contribute to the widespread use of ICT-based education.

6. **(Gender, Cross-cutting Issues)** It appeared that there were no differences in ECC access because of gender issues.

Ⅳ. Lessons Learned and Recommendations

1. Lessons Learned

☐ The evaluated project was highly relevant to the need and development policy of Uzbekistan, which led to its effective implementation.

☐ The project was harmonized well with other projects implemented by the ADB and the Export-Import Bank of China. This created development synergy. EDCF's project complemented the development partners' activities by selecting schools located in remote places.

☐ Some of the equipment to be delivered for the ECCs was damaged during transportation due to the less-than-ideal conditions of roads and vehicles. This resulted in increased expenditure for the repair or replacement of the damaged components.

☐ Multimedia contents produced by the MCDC are available via either the e-portal service or CD. Depending on the availability of laptops or computers in the classroom, utilization levels of the education materials in the class varied significantly.

2. Recommendations

☐ It is recommended that the development activities of development partners in the country be carefully accessed. This project achieved results beyond expectations by harmonizing with other donors' efforts. For instance, this project covered the same area where other donors such as the ADB and the China Export-Import Bank performed complementary activities.

☐ It is advised that additional budget be set for the repair and replacement of the damaged equipment. As mentioned in the limitation section, damages occurred during transportation of the computers and other equipment. The main cause was the inadequate road and vehicle conditions which could not be addressed within the project scope. Most of EDCF partner countries confront similar conditions. Therefore, the adverse impact of the damage on project effectiveness should be dealt with through additional budgeting.

- Providing additional computers in the classrooms in addition to ECCs may be helpful in increasing the effectiveness of the multimedia contents produced by the MCDC. ECCs tend to be used in Informatics classes only, while the educational contents developed in this project can be used separately in a normal classroom for a wider range of subjects. The use of ECCs for other subjects should be taken into consideration. Moreover, the utilization of contents is determined by whether the teacher owns or has access to a laptop in class. Therefore, supplying computers for teachers to use in classrooms should be considered.

- The complementary relationship between the MCDC and the cluster leader schools supported by ADB should be strengthened for creating bigger impact and sustainability of the MCDC.