

Evaluation Report

2016-08

Ex-post Evaluation of the National ICT Human Resources Development Project in Indonesia

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 Sangmyung University, Cheonan Council for Industry Academic Cooperation 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: The National ICT Human Resources Development Project in Indonesia
- Name of Borrower: Ministry of Finance of Indonesia
- Project Executing Agency: Ministry of Communication and Information Technology
- Requested Loan Amount: USD 21 million

2. Project Purpose

- The objective of the project is to enhance the ICT capacity of government officials. In order to achieve the purpose, the National Information and Communication Training Institute was established for ICT training.

3. Project Scope

- The scope of the project is detailed in Table 1 below.

Table 1 *Scope of the Project*

Type	Outcome
ICT service center	Information corner, kiosks (providing information of ICT centre for visitors), internet café, exhibit room, e-library, e-portal
Data center	Network, program development and data storage for operation and management, R&D room, data room, O&M room, MDF, etc.
Training center	ICT training room, accommodation, administration facilities, sports facilities
Training program	Invitational training program in Korea and local training program in Indonesia.
Curriculum development	Joint curriculum/courses development
Consultancy service	Providing consultations on the implementation and operation of the project.

Source: The Export-Import Bank of Korea (2006), Assessment Report on the National Information and Communication Training Institute Building Project in Indonesia.

II. Summary of Evaluation

1. Purpose of Evaluation

- This ex-post evaluation aimed to assess the implementation results of the National ICT Human Resources Development Project in Indonesia and to suggest policy implications based on the evaluation results. The evaluation, which consists of a literature review, questionnaire survey, and in-depth interviews, was carried out by a team of consultants from Sangmyung University.

2. Methods of Evaluation

- The evaluation used the OECD DAC's five evaluation criteria: (i) relevance, (ii) efficiency, (iii) effectiveness, (iv) impact, and (v) sustainability. Evaluation questions regarding the five criteria and additionally cross-cutting issues (i.e. (vi) gender) were developed.
- The evaluation team conducted the literature review of Indonesia's development policy on ICT human resources. Additionally, relevant data from project-related bodies including the Export-Import Bank of Korea and the MCIT of Indonesia were examined in a field visit to understand the outcomes of the project to date.
- The evaluation team carried out preliminary interviews to investigate the long-term performance of the project, that is, the impact of the ICT training on both work and daily lives of the beneficiaries. The preliminary interviews were conducted with 21 officials of the center, 7 trainees and 31 course graduates.
- In-depth interviews were carried out both in Korea and Indonesia. In particular, interviews with the president, teaching staff, trainees and graduates of Balai Pelatihan & Riset Tik (BPRTIK) were conducted in order to investigate the performance of the project as felt by its direct beneficiaries.

III. Results of Evaluation

- The project was highly successful. Particularly in terms of impact and sustainability, the project received a very favorable evaluation. Table 2 describes the overall results of the project, scored and commented by the evaluation team based on the data collected in the field and the analysis thereof. Overall, the project attained a score of 3.7 out of 4.0.

Table 2 Evaluation Results

Evaluation Criteria	Relevance	Efficiency	Effectiveness	Impact	Sustainability	Total Score
Score (-/4.0)	3.5	3.5	3.5	4	4	3.7

- 1. (Relevance)** The project was relevant to the policy targets of the government of Indonesia's Roadmap to e-Government. Moreover, the demand for building ICT capacity of government officials was also successfully met by the project.

- Indonesia is a country with many islands. In order to overcome the geographical traits, the government of Indonesia adopted a number of ICT development policies focusing on establishing an integrated national communication system. In particular, in 2002, Indonesia established the "Roadmap to e-Government" which consisted of five stages of e-government development: preparation, presence, action, participation, and transformation.

- The project was aimed at strengthening the ICT capacity of government officials as one of the goals of the Roadmap to e-Government. This project was expected to improve the diversified use of ICT in the public sector, including e-business, e-commerce, and e-learning.

- The project's goal was aligned with the national strategy. However, detailed goals were not specified. While the project intended to develop technological resources and strengthen the national ICT development system, detailed targets and program theories were not specified during the feasibility study which was done by the Indonesian government.

- 2. (Efficiency)** The project was delayed by 10 months because some of the mandatory safety facilities were not included in the original design. The overall project expenditure, however, was within the budget with no amendments.

- This project duration was initially planned to be 30 months; 8 months for bidding and contracts, and 22 months for the construction of the training center and the development of software. However, several alterations to the scope of the project were made such as contract modifications, design changes of the training center, and the provision of new facilities, causing the delay by 10 months.
 - Overall, the delay reduced the efficiency of the project, since the major cause of modifications was related to a stable supply of electricity and effective fire prevention, factors that should have been considered during the original project design stage. However, it is deemed that these structural modifications were inevitable to ensure the long-term safety of the facilities and to strengthen sustainability.
 - The project was completed within the range of the estimated budget. However, there were some modifications in the execution of the budget due to local circumstances and demand variations.
- 3. (Effectiveness)** The project was deemed effective. Facilities for the training program and accommodation for government officials and civilians were built; the number of trainees exceeded the target.
- As to short-term outcomes, the training center, data center, and ICT service center were completed as initially planned in the project.
 - The NICT opened training courses in 2010, right after the completion of construction. According to the annual plan, the training center is to provide a wide range of different programs for government officials, ordinary citizens, housewives, the unemployed, and the disabled.
 - For the process of registration, the training center initially estimated the number of trainees and sent out invitations to public officials and ordinary citizens to participate in the courses. A training course is open once a certain number of people have registered via online. While 69 training courses were held at the center with a goal of producing 4,515 trainees in 2015, 7,720 trainees completed the training course, achieving a 183 percent of graduation rate. Providing an e-learning system was part of the project, but the training center has so far been unable to provide e-learning service due to the lack of stable internet connection.

- In 2011, the expected number of trainee enrollment was around 3,000 per year. This number was greatly exceeded in 2013 and in 2015 when 8,700 trainees were educated. In addition, participants who receive a certificate from the center are likely to have better job opportunities since the certificate is regarded as a verification of ICT capacity by the government. Thus, around 4,000 trainees received the certificate issued by the center in 2015.
 - The data center has maintained the management and preservation of overall data and supported technologies which are necessary for the operation of the network system. A number of research studies have been conducted, and applications have been developed in cooperation with the R&D center. Right after the data center opened in 2011, eight projects were conducted. 25 different R&D projects have been continuously implemented as of 2016.
- 4. (Impact)** The project has significant impact on ICT capacity development. Information accessibility for minorities was improved as a result of the project. The project brought more training opportunities to them by operating special training programs and contests.
- The stakeholders including teachers, government officials and civilians, were satisfied with the free ICT training programs for their easy applicability to workplace.
 - The recipients were overall satisfied with the way the program was run by the state in an environment where private education institutes are scarce.
 - The interview results suggested that short-term courses were preferred by the participants. The officials were asked the question of whether they have any intention to pursue further programs in the future. They replied that they had been able to participate in the 2-3 day classes without any interruption of their duties so far, but that it would be hard to take part in long-term training courses. Most of the respondents preferred the current short-term courses, but some expressed doubts as to the adequacy of short-term courses for acquiring sufficient knowledge.
 - Many respondents were satisfied with the location of the training center, stating that the location of the center was convenient due to its proximity to their workplaces and homes, allowing for more frequent participation in the offered courses. The accessibility of the training institute can be seen as one of the most important factors of the project results.

- NICT further invested in a classroom equipped with facilities for the visually handicapped, creating a hearing-impaired class. Regardless of the initial project design, ICT training courses for the disabled were newly opened. In particular, a course involving ICT contests for the disabled motivated them to learn ICT skills and develop their ICT capacity, improving their accessibility to information. Unexpected, positive outcomes for the people who were excluded from the usage of ICT emerged in the management of the training center.
- 5. (Sustainability)** The project was deemed highly sustainable. Apart from government officials, other individuals coming from various social classes have been attending the Institute to receive ICT training. The project is run by the MCIT itself, which is financially stable and ensures a safe budget.
- The overall management of the training center is expected to be sustainable due to the provision of stable budget. It is because this project is directly run by the MCIT, which is capable of providing stable monetary assistance.
 - At the time of evaluation, 40 staff were working for the training center, but more trainers were needed with the rapid increase in the number of trainees. According to the evaluation, many teachers were covering multiple fields of courses, which can decrease the quality of education.
 - The number of enrolled trainees exceeded the target number (3,000 trainees per year) ranging between 4,000 and 5,000 trainees, and the number of trainees is expected to continuously increase thanks to the expansion of financial support, the promotion of ICT development policy and positive effects of the e-government system. However, the number of trainees is limited not by demand but by the government budget.
- 6. (Cross-cutting Issues)** According to the annual enrollment rates of female trainees from 2010 to 2016, there had been no evidence of gender inequality in trainee enrollment. Furthermore, special courses for housewives are offered by the center. These have significantly contributed to promoting better access to information, closing the ICT access and capacity gaps between the genders.

III. Lessons Learned and Recommendations

1. Lessons Learned

- This project was highly relevant to the national development plan of Indonesia as it was designed to enhance the effectiveness of its Roadmap to e-Government, with the explicit objective of strengthening the ICT capacity of government officials. However, insufficient demand surveys and the absence of specific targets partially compromised the effectiveness of the project.
- Although the number of training courses for government officials has gradually decreased, a variety of courses have been developed to be offered to ordinary citizens, the disabled, software developers and the unemployed. In particular, the provision of special courses for the disabled and housewives, who are largely excluded from access to information technology, contributed to the alleviation of information inequality.

2. Recommendations

- Conducting yearly demand surveys on ICT training courses would be helpful to plan and provide training courses for the following year. Furthermore, the evaluation of current courses, the publication of an annual report and the establishment of a master plan for the overall management of the training center would be useful to improve the effectiveness and sustainability of the project.
- Prior to the implementation of the project, the range of target trainees has to be accurate to adequately meet the service demand. In particular, a demand survey has to be conducted from a potential trainee's perspectives rather than those of a service provider.
- Additionally, it is recommended to check the various external factors such as regulations and the environment which are relevant to the project. For instance, the weather in Indonesia has to be considered in the process of designing and constructing buildings, as frequent rainfalls or flooding can be disruptive to the construction process.