

Ex-post Evaluation Report 2012-04

Evaluation of EDCF Projects in the ICT Sector

The Export-Import Bank of Korea
(Government Agency Responsible for the Operation of EDCF)

EDCF Operations Evaluation Team
(Evaluated by Korea Institute for Industrial Economics & Trade)

I. Evaluation Overview

- (Evaluation Purpose & Methodology)** The evaluation is intended to derive suggestions for improvement in the strategies to support the ICT sector. The methodology followed the OECD DAC criteria and the EDCF guideline.
- (Evaluation Scope)** EDCF projects in the ICT sector, approved in the last 10 years and completed in the last 5 years

<Evaluated ICT Sector Projects>

(Unit: US\$ Million)

Country	Date of Approval	Date of Completion	Project Name	Amount
Mongolia	2006	2010	Intelligent Transportation System Project in Ulaanbaatar	12.80
	2006	2011	Emergency Information Network Project	13.50
Bangladesh	2005	2011	Internet Information Network Expansion Project	25.00
Sri Lanka	2004	2010	Re-engineering the Government Component of e-Sri Lanka Project	15.00
Indonesia	2006	2009	Batam e-Government Project	16.00
	2004	2010	National Criminal Information Center Development Project	20.20
	2006	2010	National ICT Human Resources Development Project	21.00
Total			7 Projects	123.5

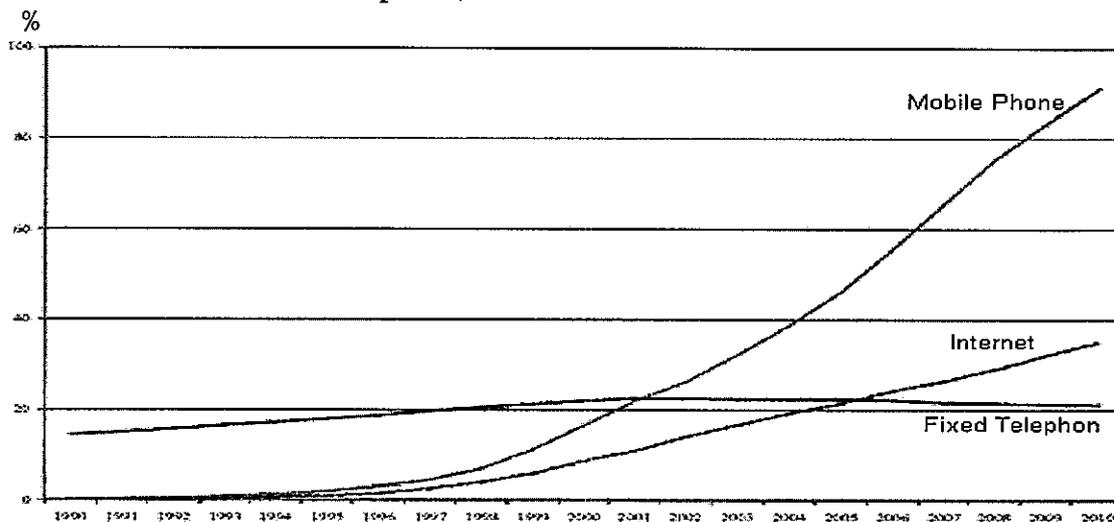
- (Status of advanced donor countries)** While EDCF projects in the ICT sector are hardware-centric and focused on equipment supply, most advanced donor countries combined the ICT sector with other areas, without regarding the sector as independent.
- (Status of developing countries)** Although the living standards of evaluated countries are low, the usage of ICT devices, especially mobile phones, has sharply increased since 2005.

- (Status of EDCF projects) The EDCF projects in the ICT sector have been actively carried out since 2006 and the proportion of ICT projects is also growing in recent years. However, they tend to focus on a few countries in Southeast Asia.

II. The Conditions of Development Cooperation in the ICT Sector

- Interest in narrowing the 'digital divide' has surged.
 - The ICT device penetration rate has risen dramatically since 2000.
 - The topic of global discussion has shifted from the issue of 'digital divide' to poverty elimination, education and health care benefits that come from digital and economic development.

<The Trend in Fixed Telephone, Mobile Phone and Internet Penetration Rates>



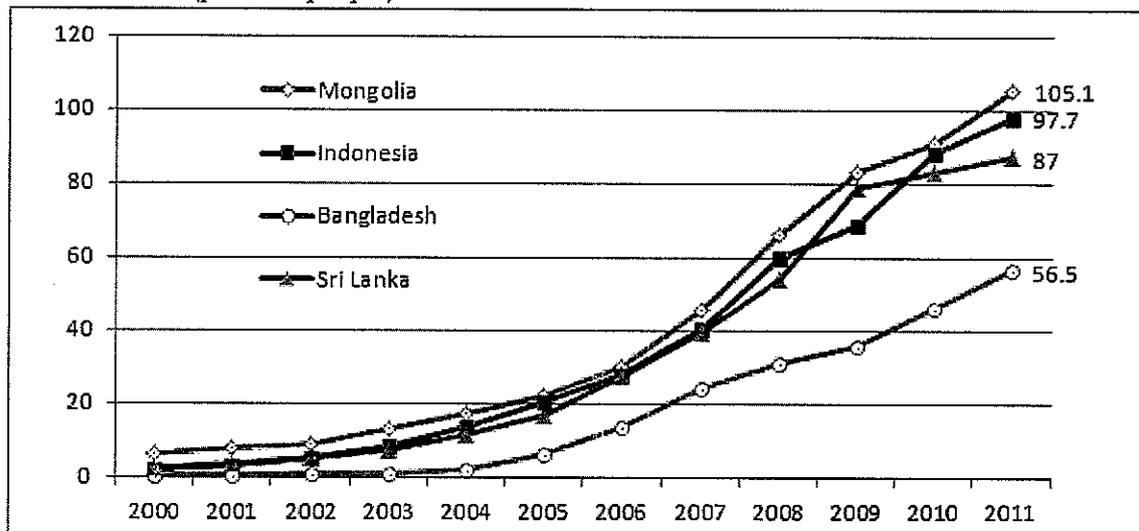
Source: Economic and Social Research Institute, Cabinet Office, Government of Japan, 'A global effects analysis on how diffusion of the ICT has affected economic development and disparity: International discussions and recent trends of Data,' (written in Japanese), August 2012.

□ The Conditions of ICT Development Cooperation in the Evaluated Countries

- The evaluated countries still have low standards of living.
- Their poor transparency and business environment have led to difficulties in the execution of ODA.
- Similarly to other developing countries, the level of ICT device usage has plummeted since 2005.
- The number of mobile phone users rose significantly from 2003, until their markets became saturated five years ago.

<The Trend of Mobile Phone Usage in the Evaluated Countries>

Number of users (per 100 people)

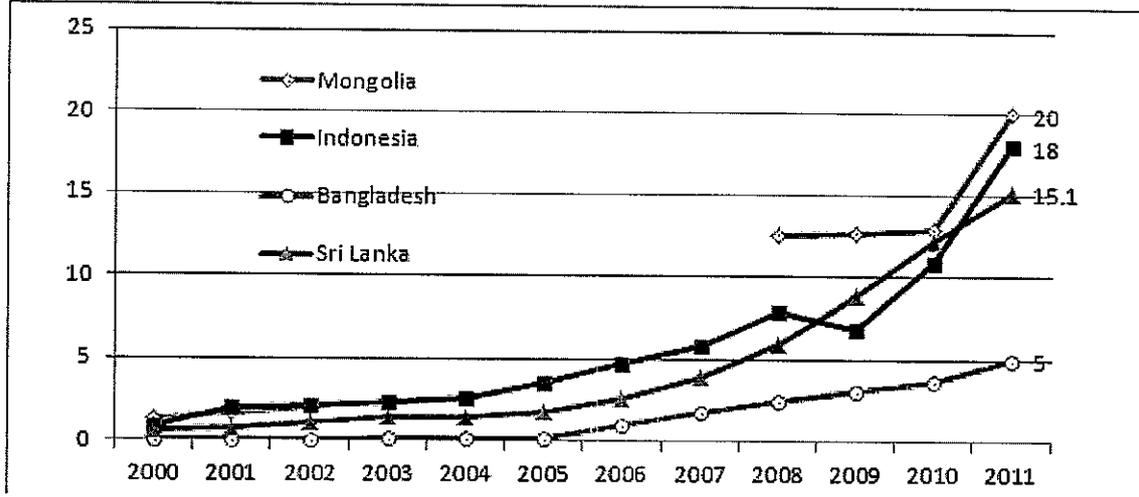


Source: World Bank

- The number of internet users started increasing from 2004, growing exponentially since 2009.

<The Trend of Internet Usage in the Evaluated Countries>

Number of users (per 100 people)



Source: World Bank.

- On the strength of the expansion in ICT device usage, numerous ICT-related indices have also started rising since 2005.
- The ICT sector has been suggested as a major element in the medium- and long-term development strategies of the evaluated countries.
- The ICT sector is considered a major area of cooperation in Korea's country partnership strategy.

<The Development Plans and Major Areas of Cooperation of the Evaluated Countries>

Nation	National Development Plan	Areas of Cooperation
Mongolia	<ul style="list-style-type: none"> ○ The 6 priorities of Mongolia's national development strategy (2007-2021) - ICT, transportation, logistics, banking, agriculture etc. 	- ICT/Public administration (the establishment of Electronic Government, the improvement of public administration)
Indonesia	<ul style="list-style-type: none"> ○ The 8 major areas in the second mid-term development plan (RPJMN 2010-2014) - Major industries (steel, foods, textile, automobile, shipbuilding and defense), ICT, energy, mining, agriculture, fishing, tourism and regional development 	- Public administration (the establishment of Electronic Government, the improvement of public administration and training of competent public officials)
Bangladesh	<ul style="list-style-type: none"> ○ The 12 objectives of the 6th 5-year development plan (2011-2015) - The digitalization of Bangladesh 	- Public administration (the enhancement of electronic government, improvement of skills and talents)
Sri Lanka	<ul style="list-style-type: none"> ○ The 4 major areas in the national development plan (2006-2016) - The enhancement of productivity of public and private organizations (policy reform, electronic government, industrial restructuring) 	- Governance (the improvement of policy measures and government competence)

Implications

- The ODA policies are focused on the following: I) cultivating professionalism to promote effective ODA, II) building systems to discover suitable projects, taking both economic and political factors into account, III) strengthening public-private partnership and the management and supervision of projects through site-centered systems, and IV) promoting

development related education for better development cooperation and activities to assist developing countries.

- ICT is an excellent tool not only for networking and connectivity, but also innovation and economic growth. It is necessary to actively integrate ICT into many other fields. Also, ICT can improve and stimulate the coordination between different organizations or agencies.

III. The Current Status of EDCF ODA in the ICT Sector

Korea's ICT-related assistance

- The total accumulated amount of ODA in the ICT sector reached KRW 1,347.7 billion in late 2010, which accounted for 15% of Korea's total aid.
 - 74% of it (KRW 99.80 billion) came from EDCF, and 20% (KRW 26.82 billion) was supported by KOICA.

EDCF's ICT Assistance Strategy

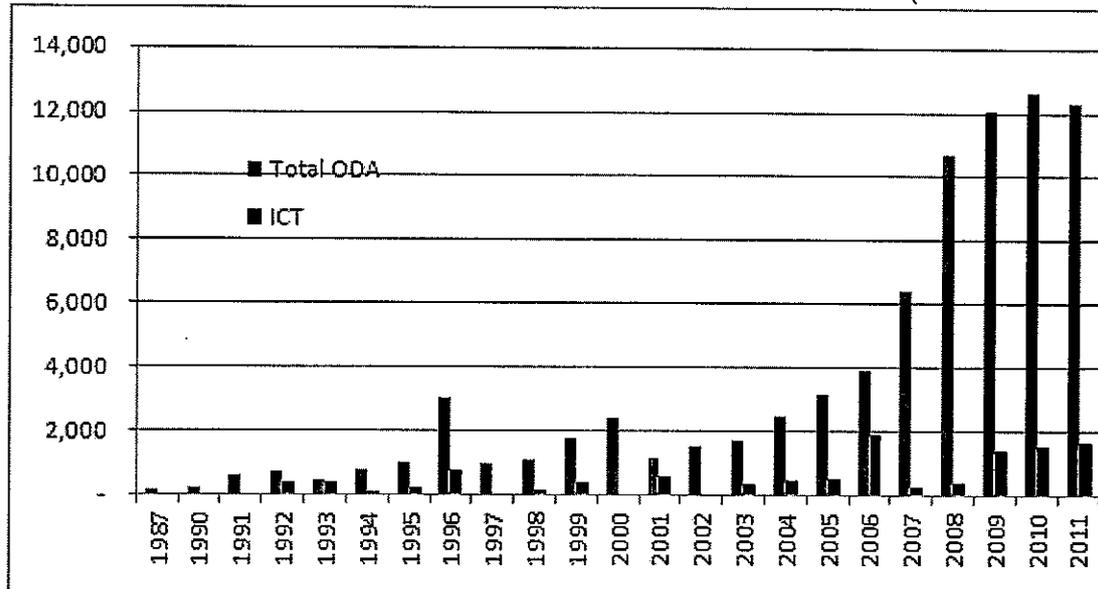
- The credit assistance enables a huge support. The assistance strategy is centered on the establishment of telecommunications, public administration infrastructure and ICT training center to ensure sustained growth through more effective training of talents in the ICT sector.

EDCF's ICT Assistance

- The amount of EDCF ODA rose dramatically since 2004. Its cumulative volume from 1987 to June 2012 reached KRW 842.38 billion.
- The volume of ICT-related EDCF assistance has kept growing since 2001.
 - 4.1% in 2008 → 9.5% in 2009 → 12.3% in 2010

<The Trend of EDCF ODA (1987-2011)>

(KRW 100 Million)



Source: EDCF.

The major types of EDCF assistance in the ICT sector

- The assistance of EDCF in the ICT sector is in the form of projects, not in the forms of training and service provided by governmental agencies such as KOICA and NIA.
- In the past, the assistance projects were only focused on telecommunications. But the areas of assistance have recently diversified into various other fields including the development of Electronic Government and the establishment of ICT-related educational institutions.

<Data on ICT-Related ODA of EDCF By Field>

Field	Number of Approvals	Approved Amount (KRW Million)	Ratio (%)
Telecommunications	21	384,817	32.3
Public Administration	20	619,216	52.0
ICT Education	7	169,081	14.2
Transportation	1	17,327	1.5
Total	49	1,190,441	100.0

Source: EDCF.

□ The EDCF Partner Countries in the ICT Sector

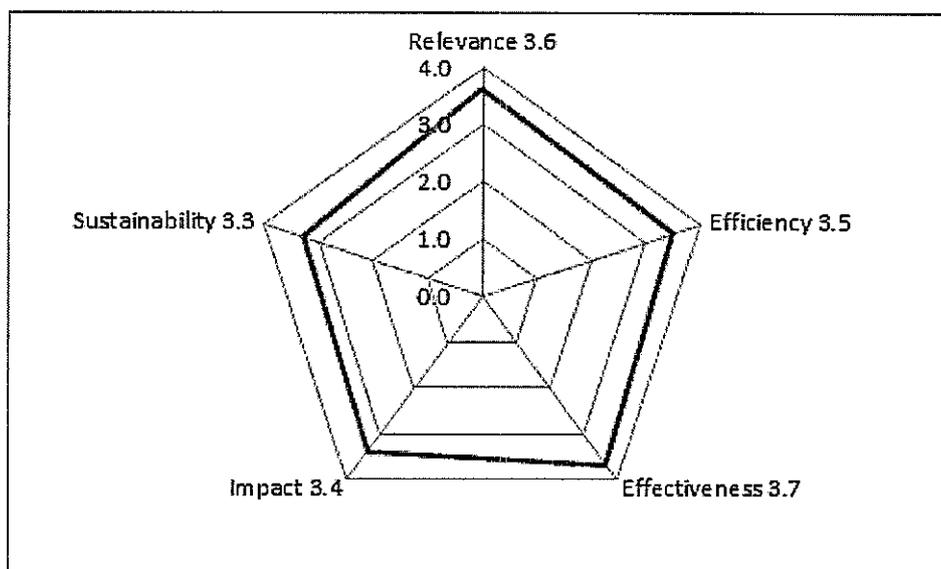
- The partners of EDCF ODA mainly consist of Asian countries including Bangladesh and Indonesia.

IV. Evaluation Result

□ According to the result of evaluation, the EDCF projects in the ICT sector are assessed to have been 'successful'.

- Most ICT projects achieved their initial objectives and produced the expected outcomes. Furthermore, some of them even created a synergy effect.
- Still, there remain challenges to be solved, due to project sustainability issues caused by the rapid deterioration of equipment, technology transfer and the budget constraints of the partner countries.

< Comprehensive Performance Assessment >



< Total Evaluation Chart >

Evaluation Criteria	Value	Details
Relevance	Successful (3.6)	<ul style="list-style-type: none"> - Generally relevant to the development policy and objectives. - There is also a large demand for ODA in the ICT sector, as it is the core infrastructure in the Information Era. - Corresponds to the ODA policy and the ICT strategy of the Korean government. - Partner countries played a leading role. - Delay in some projects and excessive competition for contracts between companies caused problems.
Efficiency	Successful (3.5)	<ul style="list-style-type: none"> - In spite of institutional and administrative problems, projects were completed quite successfully within the planned duration and budget. - The projects in parallel with the construction sector were delayed from time to time, but such delays did not matter. - Evaluated 'mostly appropriate' in terms of the cost and duration, according to a survey.
Effectiveness	Highly Successful (3.7)	<ul style="list-style-type: none"> - Completed as planned, achieving expected effects and creating synergy effects - About 70% of the surveyed assessed that the projects achieved more than 90% of planned effects. Generally positive assessment
Impact	Successful (3.4)	<ul style="list-style-type: none"> - The completion of projects increased internet usage, job creation and income in partner countries - It also affected the establishment of new institutions to support projects effectively - The effect proliferated by media reports - The surveyed responded that the projects had a positive impact on system improvement, ICT technology and industrial development, and also facilitated access to information.
Sustainability	Successful (3.3)	<ul style="list-style-type: none"> - 'Prominent' in terms of institutional sustainability, as the projects were government-oriented. - 'Suspicious' in terms of financial sustainability, due to the lack of budget to maintain them. - 'Doubtful' in terms of technology transfer, as there are not enough human resources. - 'Negative' in terms of the sustainability of equipment, because of rapid obsolescence. - 70%~80% of interviewees anticipated that the lifespan of facilities, hardware and software would be less than 5 years.
Comprehensive Evaluation Score		Successful (3.5)

V. Lessons and Recommendations

- The ICT sector projects were successful and worth developing further in that they helped to strengthen Korea's international status.
 - The ODA projects in the ICT sector need to be developed and pursued in line with global ICT trends.
 - ICT projects need more rigorous investigation and cooperation at the initial stage in order to minimize the need for facility changes and additional parts during later stages.

- It is necessary to strengthen post-completion management through the expansion of enterprise effect.
 - The involvement of high-tech companies in technology assessment should be encouraged.
 - ODA project opportunities can be explored naturally by conducting seminars on related topics and by posting relevant EDCF symbols.

- It is necessary to promote cooperation between the private and public sectors in projects and strengthen the element of post-completion management in evaluation systems.
 - The evaluation of project effectiveness and sustainability should be weighed more toward post-completion management.
 - It is important to seek phased solutions for the coordination between private and public agencies in maintaining post-completion effectiveness.

- It is recommended to combine ICT projects with other fields such as health care and education.

- There should be brand new approaches to EDCF's ICT projects because their conditions in the 2000's have drastically changed from 1990's.
- It is time to switch direction from building ICT infrastructures and education facilities to combining ICT with other fields such as health care and education and specializing in electronic government related projects.
- It is necessary to give consideration to the global trend of assistance in the ICT sector that emphasizes both development and cooperation.
- It is also important to pay attention to the changing conditions of ODA projects in the ICT sector that are heavily focused on mobile device usage.
- The mobile phone markets in developing countries have been saturated; almost everyone is likely to have internet access via mobile phone in 5 years.
- The medium- and long-term support plans in the ICT sector should seek to respond to long-term social changes.
- Taking into account that EDCF's ICT projects usually take many years to complete, it is recommended that EDCF promote ICT projects that can cope with future socio-economic changes around 2020.
- Additional actions are required to quickly increase the effectiveness and sustainability of existing projects related to ICT infrastructure and ICT education.
- It is suggested that EDCF needs to focus on specific models and fields of electronic government projects and to develop mobile e-Government systems that can also act as data centers.
- ICT should be combined with other ODA project areas including education and health care in the medium- and long-term.

- In particular, the importance of health care has been emphasized by ITU (International Telecommunication Union) and major developed countries. ICT projects linked with health care need to be highlighted.
- EDCF's potential ICT projects are in the e-government sector and should be combined with other ODA project areas.
 - Promising electronic government projects include mobile e-government systems, weather information systems, and open geospatial information platforms.
 - Projects to build ICT-enabled remote learning systems can be carried out in the form of follow-up work to improve the effectiveness of EDCF's ICT learning center building projects.
 - ICT projects linked with health care seem most promising.
- The participation of small and medium-sized enterprises needs to be enlarged.
 - The overseas expansion of Korean companies through participation in EDCF projects to eradicate poverty in developing countries need to be encouraged.
- It is recommended that a committee be established to select EDCF project models in the ICT sector.