Terminal Evaluation

Middle East

1. Outline of the Project

Country:
Jordan

Project title:
Information Technology Upgrading Project

Issue/Sector:
Information Communication Technology (ICT)

Cooperation scheme:
Technical Cooperation Project (Former Project-type technical cooperation)

Division in charge:
First Technical Cooperation Division,
Mining and Industrial Development Cooperation Department

Total cost:
Approximately 362 million yen

Period of Cooperation | 1 December 1999 - 30 November 2002

Partner Country's Implementing Organization:
Computer Technology, Training and Industrial Studies Center (CTTISC)

Supporting Organization in Japan:
Center of the International Cooperation for Computerization

Related Cooperation:
Project-type Technical Cooperation; "Computer Technology Development and Training Center"

1-1 Background of the Project

The natural resources of Jordan are less abundant than other countries in the region, and the fact that the country had poured efforts into human development, among others, placed particular emphasis in the field of information technology (IT). In this circumstance, the Jordanian government requested to the Japanese government for Project-type Technical Cooperation aiming at fostering data processing specialists in July 1988. Upon the request, the government of Japan implemented the Project-type Technical Cooperation; "Computer Technology Development and Training Center" in June 1990 - June 1994 at the Computer Technology, Training and Industrial Studies Center (CTTISC) and the technical capabilities of CTTISC in Jordan were highly evaluated.

In the mean time, the technical innovation in the IT field was striking, and now the main stream is Client Server (C/S) system based IT skills. For CTTISC to play a core role in the IT field in Jordan, it was essential that CTTISC enhanced its functions through acquiring IT skills responding to the C/S system. Under these circumstances, the Jordanian government newly requested to the Japanese government for the Project-type Technical Cooperation.

1-2 Project Overview

The project implemented cooperation on transferring necessary IT skills for C/S system introduction, development of training courses by counterparts and offering software development services aiming at human development in the IT field in Jordan.

(1) Overall Goal

Training courses in the field of C/S system are provided to Arab countries by CTTISC.

(2) Project Purpose

Technical services in the field of C/S system provided by CTTISC are upgraded.

(3) Outputs

1) The project operation unit is enhanced.
2) The necessary machinery and equipment are provided, installed, operated and maintained properly.
3) Technical capability of counterparts is upgraded.
4) Training courses in the field of C/S system are implemented.
5) Software development service in the field of C/S system is enhanced.

(4) Inputs

Japanese side:

Long-term Experts	3	Equipments	approx. 131 million yen
Short-term Experts	19		
Trainees received	8	Local Cost	approx. 5 million yen

Jordan's Side:

Counterparts	35
Land and Facilities	
Local Cost	approx. 695,850 US dollars (approx. 92 million yen)

2. Evaluation Team

Members of Evaluation Team	Team Leader/General: Kazuo TANIGAWA, Special Technical Advisor, JICA Technical Evaluation: Shun ISHIZAKI, Professor, Faculty of Environment Information, Graduate School of Media and Governance, Keio University Evaluation Management: Ken KUBOKURA, Staff, First Technical Cooperation Division, Mining and Industrial Development Cooperation Department, JICA Evaluation Analysis: Takako HARAGUCHI, Global Link Management, Inc.

Period of Evaluation	1 September 2002 - 18 September 2002	Type of Evaluation:	Terminal Evaluation

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

Both the project purpose and the overall goal are in conformity with the vision of His Majesty King Abdullah 2; "Jordan functions as an IT hub of the Middle East region", and the orientation of the Economic and Social Development Plan (1999 2003) with the aims of human development in the IT field and promotion of software industry, and the several national IT initiatives such as e-government, e-learning and REACH initiative (national IT strategy). The technical services that CTTISC provides were also consistent with the needs of the domestic IT industry; the application development on C/S system. Therefore, the project was relevant. CTTISC was the only research institute that could implement a comprehensive training program in Jordan, and CTTISC was appropriate as a target of technical cooperation.

(2) Effectiveness

The technical services of CTTISC have been significantly upgraded judging from the quality and quantity of the new techniques deployed during the implementation of the project. For instance, services were improved such as that 20 kinds of techniques were newly added to the training courses, and 12 kinds of existing techniques were improved. The beneficiaries also showed quite high satisfaction with the services that they received from CTTISC. Thus, the project purpose will be accomplished.

(3) Efficiency

As a result of appropriate utilization of all the inputs to the project, the technical capabilities of counterparts were upgraded, and sufficient numbers of training courses (16 long-term courses and 53 short-term courses) and software development projects (thirty eight in total) were carried out. The high efficiency of the project attributed to the input of high quality personnel from both Japanese and Jordan sides, the swift procurement of the necessary and sufficient machinery and equipment, and the good use of the past lessons in effective and efficient technical transfer by dispatching mainly the short-term experts.

(4) Impact

The overall goal has already been achieved to a certain extent because the Third-country Training Program (Web Computing) for the Arab countries has been launched since September 2002. There were other positive impacts observed. The active involvement of CTTISC in the national strategy for the promotion of e-government and e-learning, which led to the improvement of the status of Royal Scientific Society (RSS). Meanwhile, there were some negative factors observed. Newspapers criticized that CTTISC was competing with private IT sectors in terms of software development activities. However, many related personnel positively interpreted the article as an indication that CTTISC had improved its technical capability. Since the publication of the article, the dialogues between CTTISC and private sectors have been promoted.

(5) Sustainability

The technical sustainability of CTTISC was very high judging from the improvement of counterparts' technical capabilities and their retention rate. With regard to organizational sustainability, CTTISC was institutionally and administratively well-established while there still remained room for improvement in terms of its operation and management system of the training courses. Externally, under the current dynamic changes in Jordan's IT environment, it was necessary to identify the role of CTTISC in the direction of the country's IT development as represented by such initiatives as e-government, e-learning and REACH. As for financial sustainability, it had been highly evaluated how CTTISC has long maintained sound and self-supportive budgetary conditions. However, recently there has been rising concern about decrease of income under the streamline of privatization, and some contracts with state enterprise were terminated. It is expected that CTTISC will need to compete with private sectors in order to increase its income resources.

3-2 Factors that promoted realization of effects

(1) Factors concerning Planning

1) The Supervising organization of CTTISC was a non-governmental organization offering wide range of benefits to RSS, the government and private sectors and was financially independent. Therefore, CTTISC had decision-making authority on its operation. Consequently, it can flexibly and quickly cope with the market needs and give promotion and incentives to its staff as well as the private sector does. These linked to the enhancing motivation of the counterparts and preventing them from leaving their job, and assuring the project with high sustainability. Therefore, selecting CTTISC as an implementing organization of the project contributed to the realization of the effects.
2) Allocating counterparts as lecturers of training or the staff who engaged in software development contributed to the realization of effects. Experiences as a lecturer in a training course, self-learning and development of software offering to private organizations brought about ripple effects, which were effective to improve the quality of the training course and software development services.

(2) Factors concerning the Implementation Process

1) There were some factors that promote effective and efficient technical transfer: Introducing the monitoring system on progress of technical transfer to the counterparts; re-dispatch of the same short-term experts as follow-up activity; and implementing rehearsal before the training.
2) As fair compensation was offered to the engineers belonged to the private IT training corporations, it became possible to continuously dispatchethe engineers with high quality as short-term expert, , which contributed to the effective technical transfer.
3) Under the strong leadership of the project manager (Director of CTTISC), the highly motivated counterparts and long-term experts committed to the project activities and efficient technical transfer system was developed and adopted. This contributed to the success of the project.

3-3 Factors that impeded realization of effects

(1) Factors concerning Planning

N/A.

(2) Factors concerning the Implementation Process

The results of the project by the Five Evaluation Criteria were generally high. There were some insufficient points at the mid-term evaluation, but they were greatly improved along with the recommendation at the mid-term evaluation. There was no factor that greatly interfered with the realization of effects.

3-4 Conclusion

Overall, the project has been successfully implemented. It can be confirmed that the original project purpose will be accomplished at the completion of the project. Among a number of the factors that contributed to the success of the project, the commitment of highly-motivated counterparts and long-term experts under the strong leadership of the project manager (Director of CTTISC), and the application of the efficient and effective methodology of technical transfer are of particular significance.

3-5 Recommendations

The evaluation team recommended the following for further enhancement of the benefits and effects that have been brought about by the project.

(1) CTTISC should immediately upgrade existing computers in order to conduct training course in the field of multimedia and web computing.

(2) CTTISC should sustain and improve the quality of services, by continuous upgrading of knowledge and skills of its staff as well as training materials

(3) CTTISC should manage training courses more systematically.

(4) CTTISC should strengthen marketing capacity.

(5) CTTISC should share the acquired information and know-how among the counterparts through the utilization of web-based training (WBT)

(6) CTTISC should concentrate on specialized and characteristic training courses, which will have more impact on its role of human resource development in the IT field in Jordan.

3-6 Lessons Learned

(1) Demonstration prior to training courses is a useful method in conducting training performed by a counterpart.

(2) The experts and counterparts should be involved in preliminary survey and project planning.

(3) Recruiting short-term experts from private sector is effective for a technical cooperation project particularly in the fields of high technology. In such a case, the recruitment is easier if certain incentives are provided to the organization to which the short-term experts belong.

(4) WBT can be an effective tool for sharing knowledge and skills that have been transferred among the counterparts as well as for disseminating them to a wider range of beneficiaries.

3-7 Follow-up Situation

N/A.