Simplified Ex-Post Evaluation for Technical Cooperation Project

Evaluator, Affiliation	Keiko Watanabe Foundation for Advanced Studies on International Development	Duration of Evaluation Study
Project Name	The Project on Balancing and Modernization of Workshop Facilities at the Pakistan Industrial Technical Assistance Centre (PITAC)	January 2010 – December 2010

I Project Outline

Country Name	Islamic Republic of Pakistan
Project Period	15 September 2002-14 September 2006 (4 years)
Executing Agency	Pakistan Industrial Technical Assistance Centre (PITAC), Ministry of Industries & Production
Cooperation Agency in Japan	Sokeizai Center (The Material Process Technology Center)
Total Cost	903.54 million yen
Related Projects (if any)	-Technical Cooperation: “Project for the modernization of the manufacturing process of molds and dies in PITAC” (Sep.1982-Oct.1985) -After-Care Cooperation: “Project for the modernization of the manufacturing process of molds and dies in PITAC” (1994-1995)
Overall Goal	Domestic plastic mold making industries are able to supply better quality molds for plastic production in Pakistan
Project Objective(s)	Technical capability of PITAC is upgraded to extend technical services in the filed of plastic mold technology
Output[s]	1. The project operation unit is established for making advanced plastic molds 2. The necessary machineries and equipment are provided, installed, operated and maintained properly 3. Technical capability of the C/Ps is upgraded 4. Technical training courses and seminars are implemented systematically 5. Technical backup support services are implemented systematically 6. Advisory services are implemented systematically 7. Interactions of the Project with private companies are strengthened

Inputs (Japanese Side)		Inputs (Pakistan Side)	
Experts	6 Long term, 20 Short term experts	Staff allocated	30 C/Ps
Equipments	340 million yen	Equipments	N/A
Local Cost	10.43 million yen	Local Cost	PKR 27 million
Trainees Received	26 C/Ps	Land etc provided	Building, Equipment
Others	N/A	Others	N/A

II Result of the Evaluation

Summary of the evaluation

The project was implemented with aims of upgrading technical capabilities of PITAC in producing plastic molds as well as contributing the improvement of the plastic mold industry in Pakistan by PITAC's providing training, technical backup support, and advisory services. Therefore, upgrading technical skills in plastic mold production alone would not be enough to fulfill the project objective, but the project goal was that PITAC would itself acquire the capacity to build a firm relationship with industry and become a technical and advisory services provider to customer companies. When the project started, the skills necessary to produce sophisticated plastic mold parts essentially did not exist in Pakistan; therefore, these parts were imported. The Government of Pakistan adopted a policy to increase local procurement rates, so that the internal plastic mold demand was very high. By producing four model molds, the Project unquestionably increased the plastic mold production skill capacity at PITAC. Other outputs included training, company visits, technical backup support, and advisory services. PITAC itself, to a certain degree, has been able to conduct these activities without full Japanese expert support. However, during the project period, only limited numbers of these activities were feasible; therefore, the impact on the industry was not sizable. The major reason for this was that the project pre-conditions including construction and refurbishment of building and facilities, and deployment of qualified C/Ps were only met after more than two years of implementation. The Project, therefore, had to make a great deal of effort to meet the pre-conditions during these first two years; thus, the planned activities were delayed. Also, the frequent turn over of the General Manager of PITAC influenced efficient and coherent project operation.

At the time of ex-post evaluation, it was observed that the training courses introduced by the Project were continuously conducted and an additional 25 molds were produced. From these facts, it is confirmed that the PITAC capacity increased even after the Project ended. However, some concerns about sustainability of the project effect were observed. PITAC does not have firm financial base and some of the necessary activities like seminars, PC software/anti-virus updates, workshop renovation and maintenance, and spare part procurement of some equipment has not been implemented due to the budget shortfalls. In addition, the electricity supply problem, which was pointed out during the project period, has not been solved and is still causing the frequent interruption or postponement of the training sessions.

In light of the above, this project is evaluated to be fairly satisfactory.

<Recommendations for JICA>

If a project starts without having fulfilled the pre-conditions, it may need extra time and effort to complete the pre-conditions, which may to a great extent affect the planned project goals. Therefore, before the project starts, thorough consultations between JICA and the counterpart should be conducted as to whether pre-conditions have been met or not, and what countermeasures should be taken if the pre-conditions were not met.

<Recommendation for PITAC>

The frequent interruption or postponement of the training sessions due to the electricity problem may undermine the PITAC reliability even though the training contents are excellent. Considering the financial situation, problems need to be prioritized and urgent countermeasures taken.

<Constraints of this evaluation study>

Since the measurable targets for the project objectives and some output indicators were not set, a degree of project achievement was not explicitly identified. In addition, as seen from their indicators, Output 1 and Output 2 are rather Input or Activity level, not Output level. Therefore, these two outputs were examined in Efficiency, not in Effectiveness-Impact.

1 Relevance

(1) Relevance with the Development Plan of Pakistan

"Ten-Year Perspective Development Plan (2001-2011)" stipulates the importance of economic growth by developing the private sector including small and medium enterprises (SMEs) through improving competitiveness by promoting productivity, efficiency, and quality. The 1999 Economic Revival Plan specified SME development as a priority area. To develop local supporting industries, the government adopted a localization policy which set target levels for procuring locally produced parts by foreign companies operating in the country.

(2) Relevance with the Development Needs of Pakistan

A variety of industrial sectors require plastic mold production, therefore, upgrading technical skills and quality in this area are essential for economic growth. In accordance with the above government localization policy, the sophisticated parts that had been imported were now required to be produced locally.

(3) Relevance with Japan's ODA Policy

One of the priority areas of Japan's assistance was to build Pakistan's economic base in accordance with the results of the 1996 economic cooperation survey and policy dialogue with the Government of Pakistan. The country assistance policy that was developed in February 2005 stated the importance of "sound market economy development" including the issues of production management quality, SME control, and export-oriented enterprises.

From the above, this project has been highly relevant with the country's development plan, development needs, as well as Japan's ODA policy; therefore, its relevance is high.

2 Effectiveness / Impact

(1) Achievement of Project Outputs and Project Objective(s)

The Project produced the following outputs;

① Technical skills of counterparts have definitely improved by producing the target four model molds, although continuous training would be required. (Output 3)

② The training courses were conducted in accordance with the annual plan. According to the available data, up to June 2006, the Project conducted 34 training courses with 273 participants almost reaching the targeted number of 36 courses with 265 participants. Most of the training courses were assessed by the participants as satisfactory. It can be said that the expected training outputs were produced. The Project also held 21 seminars in five areas: Occupational Safety and Health Management (12), Latest Technology (3), Total Quality Control (4), Project Introduction (1), and 3D modeling (1). 1,454 customers in total from private companies participated. (Output 4)

③ The technical backup support to the private companies began in October 2005, 3 years after the Project started. Out of 14 inquiries, 6 services were completed by project termination. The advisory services also began in June 2005, which was later than planned. The Project received 26 requests from 7 companies and completed more than half of them by the end of the project period. During the initial period of the advisory services, Japanese experts mainly provided the technical advice, however, gradually C/Ps were able to deal with the services without assistance from the Japanese experts. Both services were originally planned to be initiated by 2004 after completing technical transfer to C/Ps. The main reason for the delay was that it took a great deal of time to fulfill the project pre-conditions, which were building construction and C/P deployment. Therefore, the achievement number of these services was limited. (Output 5 and Output 6)

④ According to the questionnaire survey at the terminal evaluation, the PITAC's training activities, technical backup support and advisory services were generally highly evaluated by the related industries. The questionnaire results also reflected the improvement and enforcement of the PITAC's services in support of the private sector. This kind of interaction between PITAC and the private sector enhanced their mutual relationship. During the project period, the number of private companies (customers) registered increased year-by-year, totaling 284 as of April 2005. (Output 7)

Actually, the project purpose was understood as synonymous with the above outputs since some of the output indicators were the same as those of the project purpose. Therefore, based on the above outputs, as shown in ③, the Project was only able to produce limited services and effects on the related industry in Pakistan within the project time frame. It can be concluded that the Project was not able to achieve its expected objective.

(2) Achievement of Overall Goal, Intended and Unintended Impacts

The Project contributed to the SME development and the overall goal of qualitative mold production. For example, with the PITAC produced plastic mold, one of the natural gas pipeline companies became the sole supplier producing sophisticated parts cheaply in Pakistan, parts that used to be imported from western suppliers at high cost. The number of registered customers increased to 528 companies at the time of ex-post evaluation. Technical backup support also increased 49 cases (from 25 companies) and advisory services were provided to 7 companies in 2009.

From the above, this project has somewhat achieved its objectives; therefore, its effectiveness is fair.

3 Efficiency

(1) Outputs

As stated in the above "Effectiveness / Impact", some of the outputs of the Project were not fulfilled as expected.

(2) Elements of Inputs

The selection and recruitment of a Japanese long-term expert on mold processing was unsuccessful and the post was not filled. This led to the delay of the planned activities in that field. The Project made up for this gap by sending short-term experts and providing additional training in Japan. As a result, the expected output in this field was produced. Concerning the provision of machinery and equipment from Japan, procured items were appropriate in numbers and types. Also they were procured and transported to PITAC on time. However, the pre-conditions including construction and refurbishing of the building and C/Ps deployment were not completed before the Project start, as the Pakistani side failed to secure the local budget for these purposes in time. Therefore, the Japanese experts devoted their efforts to compensate for the preconditions for more than two years within the four-year project; and this obstructed the implementation of the planned activities. It is also reported that the frequent PITAC General Manager turn over affected coherent management and efficient communication with the Japanese experts.

(3) Project Cost, Period of Cooperation

The Project implementation period was as panned; the planned period was 48 months and actual period was 48 months (equal to 100% of planned period). The planned cost was not confirmed but the actual cost was 903.54 million yen.

From the above, some of the elements of inputs are not appropriate for producing outputs and achieving the project objective; therefore, efficiency of the project is fair.

4 Sustainability

(1) Related Policy towards the Project

The demand of plastic mold producing is still high among industries. The plastic industry is now the second fastest growing industry in Pakistan. In these circumstances, the PITAC modernization and technical upgrading direction is in line with Pakistan's long-term development strategy of "Vision 2030", "SME Policy 2007", and "Industrial Policy 2009-2010 (2009)".

(2) Institutional and Operational Aspects of the Executive Agency

The functions of the four sections (Design, Mold Making, Trial Shot, and Administration), which were newly established for the Project, are now incorporated into the existing sections in PITAC, which has enhanced the institutional sustainability. An internal PITAC management committee has been established and has developed a short-term and long-term strategy for PITAC. Out of 28 C/Ps, 23 C/Ps still remain at PITAC. More than half C/Ps staff was contract staff at that time, but 12 of them became permanent staff. It was self-evaluated that the number of staff is sufficient to operate PITAC activities.

(3) Technical Aspects of the Executive Agency

Judging from the fact that PITAC itself produced 25 plastic molds after the project termination (currently 4 more molds are in production) and revised four kinds of training materials, PITAC unquestionably has built up the needed technical skills as well as gaining a responsive ability to the changing needs and situations. The PITAC has instituted a system for the staff to increase broad-based technical skills by sending 4-6 personnel annually to domestic or overseas training programs, and transferring some internally every 2-3 years. It was reported that the training manuals that were produced by the Project are still frequently used and the persons in charge and supervisors for the machinery and equipment strictly practice the operational guidelines. Therefore, it is assumed that there are not any technical problems.

(4) Financial Aspects of the Executive Agency

The government funding the is increasing year by year and the PITAC income also has more that doubled since project termination (PKR 4.11 million (2005/06)→ PKR 10.3 million (2008/09)). Training income is half of total revenue. However, it was reported that the budget is insufficient for PITAC to be a fully functioning operation, so that the necessary activities such as upgrading of PITAC workshops, holding seminars and symposiums, updating anti-virus software, and procuring licensed software, remain intact as of now. The machinery and equipment maintenance funds are only to some extent is secured. Some machinery spare parts and consumables have to be imported. Because of the budget shortfalls and the complexity of the import procurement process, some technical training and mold making using this machinery are from time to time interrupted.

(5) Continuity of Effectiveness and Impact

The technical training has been continuous. During the period of 2007 and 2009, 34 courses with 200-290 participants were conducted each year. Most of the training was evaluated as more than satisfactory according to participant post-training assessments. As seen in the increased number of technical backup support and advisory services as well as in the rising trend in the customer registration, it can be assumed that the relationship between PITAC and industry has been strengthened. In accordance with 5S's practices (Seiri (Sort), Seiton (Set in order), Seiketsu (Standardize), Seiso (Shine), Shituke (Sustain)) which were introduced during the Project, wearing uniforms and safety shoes, 5S routine patrol and tool box meetings in the morning have been continued. As for publicity, PITAC is updating its website monthly, distributing PITAC pamphlets, and advertising training courses in local newspapers. One area of concern is the electricity supply issue at the PITAC workshop was not completely solved despite it being pointed out at the mid-term evaluation and during the Project. After the indication, PITAC agreed to procure an Auto Voltage Regulator (AVR) and a generator. The AVR and 35 KVA generator having been procured and installed in the PITAC workshop. However, the 35 KVA generator was insufficient to operate the large machinery including the injection molds. Therefore, the training courses and mold making which require large machinery was frequently interrupted and postponed in some cases even after 2007. Among procured machinery and equipment, four pieces of equipment including a video camera and copy machine were damaged and remain unusable because of lack of funds and the difficulty in procuring spare parts locally. The production standardization of the molds by the Project has not been realized yet, which was one of the recommendations of the terminal evaluation.

From the above, some problems have been observed in the financial aspects of the executing agency; therefore, sustainability of the project effects is fair.