

Terminal Evaluation

Asia

1. Outline of the Project

Country:

Sri Lanka

Project title:

The Follow-up Programme for Foundry Technology Development Project

Issue/Sector:

Private Sector Development

Cooperation scheme:

Project-type Technical Cooperation

Division in charge:

First Technical Cooperation Division, Mining and Industrial Development Cooperation Department

Total cost:

Approximately 101 million yen

Period of Cooperation 1 December 1995 - 30 November 2000 (Follow-up)
1 June 2001 - 31 May 2003

Partner Country's Implementing Organization:

Ministry of Enterprise Development, Industrial Policy ,Investment Promotion and Constitutional Affairs, Industrial Development Board (IDB)

Supporting Organization in Japan:

Materials Process Technology Center

Related Cooperation:**1-1 Background of the Project**

The government of Sri Lanka has carried out policies aimed at rebuilding the national industrial foundation since the conversion to a market economy in 1977. Particularly the promotion of its key industry of metal processing was expected to make a great contribution to activating the social and economical foundation. As a part of these approaches, the government of Sri Lanka requested to the government of Japan for technical cooperation with the aims of improving metal processing techniques.

Upon request, the Japanese government implemented the Project-type Technical Cooperation to the foundry sector in 1995 - 2000. As a result of the cooperation, technical transfer to the counterparts improved their technical level higher than expected, however, supplemental technical transfer by the Japanese experts was necessary to make the implementing organization of the Industrial Development Board (IDB) offer accurate technical instruction to the private sector of foundry in Sri Lanka. Therefore, the government of Sri Lanka requested to the government of Japan for follow-up cooperation. This evaluation covers the two-year follow-up cooperation.

1-2 Project Overview

Based on the effects of the five-year cooperation in Sri Lanka, the project implemented technical transfer to the counterparts of IDB by the Japanese experts, aiming at further improvement of foundry techniques in each section of casting design, wood pattern making, molding and sand preparation, melting and testing and inspection, and improvement of the technical service offering system to private foundry companies.

(1) Overall Goal

Technical capability and production capacity of foundry industry in Sri Lanka are improved.

(2) Project Purpose

IDB becomes able to provide appropriate technical services to the local foundry industry.

(3) Outputs

- 1) Project operation unit is enhanced.
- 2) Machinery and equipment related to the foundry technology is provided, installed, operated and maintained properly.
- 3) Technical capability of Sri Lankan counterpart personnel is upgraded.
- 4) Training courses related to foundry technology are implemented systematically.
- 5) New skills and technology are introduced to foundry industry through seminars and publications.
- 6) Technical services are systematically provided.

(4) Inputs

Japanese side:

Long-term Experts	3
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Short-term Experts	2
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Local Cost

Sri Lankan Side:

Counterparts	12
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Land and Facilities

Local Cost	approx. 8 million yen
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2. Evaluation Team

Members of Evaluation Team Team Leader/General: Keiichi TAKEDA, Special Advisor, Mining and Industrial Development Cooperation Department, JICA
Technical Evaluation: Eizo MAEDA, Technical Advisor, The Materials Process Technology Center
Evaluation Management: Minoru YAMADA, Staff, First Technical Cooperation Division, Mining and Industrial Development Cooperation Department
Evaluation Analysis: Michiyuki KEMMOTSU, Chuo Kaihatsu Cooperation

Period of Evaluation	10 February 2002 - 27 February 2003	Type of Evaluation:
		Terminal Evaluation

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

The machinery industry in Sri Lanka is at the moment too weak. In this sense, it was questioned that the project was launched on the grounds of the judgment that the foundry sector would be the important supporting industry of machinery industry. However, the foundry sector played an important role by offering products and parts to various sectors such as agricultural machinery, construction and delivery, and it is necessary to improve techniques for the expansion of the market to overcome the severe economic situation today. In addition, the strong commitment of the Sri Lankan government to promote the industry was confirmed. Therefore, the relevancy of the project was assured. As the project aimed at promoting medium and small size companies, the consistency of the aid policy of the Japanese government to the Sri Lankan government and the relevancy of selecting IBD as an implementing organization had no specific problems.

(2) Effectiveness

The techniques of counterparts reached top levels in Sri Lanka and in some technical sections. Their techniques were judged to be equivalent to first class Japanese technician tests. As for the enforcement of the technical services offering system to the

private sector, during the cooperation period, the project implemented nine courses in four fields with thirty seven participants, seven technical seminars with 220 participants, five publications and sixty five company visits and twenty three technical supports. These were worth applauding.

The training courses and seminars are planned, implemented and monitored by the counterparts themselves. The participants were mostly satisfied with the services offered by IDB, and some informed of how they utilized the acquired techniques at the site. However, as the market scale of the industry was small, and the textbooks were not revised, the number of participants was decreasing.

In the meantime, company visits and technical consultations were implemented in many cases with the support from the Japanese experts. However, recently, the counterparts have implemented the activities on their own, which showed that the areas of techniques that counterparts could cover have expanded.

Judging from above, the project purpose has been accomplished so far. However, to maintain the attained level, it is necessary to make continuous efforts.

(3) Efficiency

The combination of technical experts who can cover wide technical fields with abundant international experience in developing countries and coordinators who have a thorough knowledge of Sri Lanka contributed enormously to achieve high efficiency of the technical transfer. The inputs from the Sri Lankan side were also provided mostly efficiently. There were times when a number of the counterparts were not at the project, but it was not a serious problem because at least one counterpart was allocated to each technical sector, and they were equipped with many techniques in preparation for a contingent situation. Therefore, the efficiency of the project was high on the whole. However, there remained some issues such as because of the sharp increase in the electricity tariff, IDB was compelled to restrict the operation of the high frequency induction furnace provided during the implementation of original Project-type Technical Cooperation, and sometimes it took time to purchase spare parts and consumables of equipment.

(4) Impact

It is difficult to judge the accomplishment of the overall goal at the moment because of the lack of statistical data. However, it will be accomplished in a short time because there was some positive impact observed such as some companies that utilized the attained techniques from IDB reduced the rejection rate. There were some indirect positive impacts such as the relationship with private industry groups was improving and the counterparts were better motivated. There were no negative impacts observed.

(5) Sustainability

As for the institutional sustainability, the IDB's movement of reorganization with the aim of enhancing the service offering system to the private sector clients may affect the sustainability of the project activities.

Technical sustainability of the project was ensured. The counterparts have reached the level where they can plan, implement and monitor most of the technical services they provide to the industry, as a result of that the follow-up cooperation transferred techniques focused on the materials and production methods available for the domestic foundry manufacturers. However it is necessary to actively grasp the needs from private sectors and try to improve the quality of the training (e.g. revision and development of textbooks, development of topics for seminars).

There was some concern about the financial sustainability. There was an overall government policy that states agencies that provide marketable services need to be self-sufficient in the near future. The key will be how IDB charges its fees for their technical services from the client.

Judging from the above, the sustainability of the project activities was not necessarily secure.

3-2 Factors that promoted realization of effects

(1) Factors Concerning the Planning

N/A.

(2) Factors concerning the Implementation Process

N/A.

3-3 Factors that impeded realization of effects

(1) Factors Concerning the Planning

N/A.

(2) Factors concerning the Implementation Process

N/A.

3-4 Conclusion

The techniques were successfully transferred to the counterparts, and the project purpose of the improvement of the IDB's capability of technical service was achieved. The counterparts have reached the technical level where they can upgrade their knowledge and skills by themselves, therefore, the cooperation should be terminated as planned. In addition, the private companies utilized the services of IDB, so the overall goal will be accomplished in the near future. There was a question about the original assumption that the foundry sector would be the important supporting industry of the machinery industry, however, there existed a recognition that to activate the Sri Lankan economy, the foundry industry would have to play an important role, and that the meaning of the project activities not be undermined. In the meantime, the counterparts can upgrade technical levels by themselves. With the strong commitment that the government and IDB assure the sustainability of project activities, it is possible to maintain and further strengthen the positive impacts of this cooperation.

3-5 Recommendations

(1) The Sri Lankan government should make further efforts to assure the relevancy of the project activities through intensive discussion about the significance of promoting the foundry industry with related parties of both governmental and private sectors. In particular, it is favorable to maintain the general direction of realistically seeking niche markets for the castings rather than ambitiously trying to promote the foundry industry as the supporting industry of the advanced machinery industry.

(2) The Sri Lankan government should establish an institutional framework capable of providing reliable statistics on the foundry industry and for utilization by aid organizations as indicators of the effects of their cooperation.

(3) IDB should maintain its efforts to continuously improve the quality of its technical services even after the Japanese experts returned to their home country through always tapping needs from the private sector. For instance, it is favorable to pay attention to the latest international movements on foundry techniques and apply them to the national foundry industry in Sri Lanka.

(4) To maintain its current technical level, IDB should prepare for unexpected situations such as a counterpart's resignation as well as to try to disseminate the transferred techniques within IDB. Furthermore, it is favorable to maintain the policy of the counterparts with multiple skills which were introduced during the cooperation period.

(5) To promote medium and small scale companies and to establish the status of leading BDS (Business Development Service) in Sri Lanka, IDB should strengthen the linkage with the planning section and each marketing section as well as maintain and enforce the system of absorbing opinions from outer organizations or client companies for the improvement of technical services. IDB should also try to implement best practices with the cooperation of industry groups and share problems.

(6) IDB should seek self-sufficiency gradually which the Sri Lankan government requires. In order to gain revenue through providing technical services, it is critically important that the private sector recognizes the competence of IDB and will be willing to pay for its services. For that purpose, it is necessary that IDB tries to enhance its technology and to improve its capability and reputation as an organization. During the transition period, relying on the financial support by the government, IDB should accumulate the experience of offering technical services.

(7) In order to ensure that machinery and equipment operate in good condition, it is necessary that IDB establish stable procedures for purchasing necessary spare parts and consumables. For that purpose, maintenance and management of equipment could be worth considering outsourcing. To continue similar activities after the termination of follow-up program, it is necessary to study resources such as automobile and OA machines delivered to IDB during the cooperation period remain in the Foundry Division of IDB.

3-6 Lessons Learned

(1) During the follow-up program, special attention was paid to the local conditions of the Sri Lankan foundry industry, which contributed to successful technical transfer to the counterparts through intensive factory visits and the attempt to work with selected model factories. The same observation can be applied to other similar programs.

(2) During the follow-up program, as observed in the introduction of multi-skilled counterparts, the Japanese experts dispatched to cooperation projects are not only experts in their technical fields but also experienced technicians who are familiar with the discipline and practices of Japanese private enterprises. It is advisable that, in similar cooperation projects, such expertise of Japanese experts should be appropriately exploited because those projects need to be more client-oriented than technique-oriented. It is also worth considering describing in the contents of a project that utilizing and disseminating the knowledge and expertise are necessary for the experts.

(3) The project design for this follow-up program might have been inappropriate in some aspects. Some of the inappropriate indicators and external factors were settled on PDM (Project Design Matrix). A preliminary survey for the implementing organization was not enough. Relevancy of the implementation of the program was not evaluated sufficiently. In order to avoid these problems, it is advisable that sufficient time and resources should be allocated to elaborate the project design at the planning stage. In particular, in justifying cooperation project aiming at promoting a specific industry, it is desirable that the preparatory mission investigate not only the government policy of promoting the industry but also the political process through which such policy is formulated to ensure the relevance of cooperation.

3-7 Follow-up Situation

N/A.