

Terminal Evaluation

Latin America and the Caribbean

1. Outline of the Project

Country:

Argentina

Project title:

Project of the Mine Pollution Control Research Center

Issue/Sector:

Mining/Environment

Cooperation scheme:

Project-type Technical Cooperation

Division in charge:

Second Technical Cooperation Division,
Mining and Industrial Development Study Department

Total cost:

851 million Yen

**Period of
Cooperation**

1 May 1998 - 30 April 2002

Partner Country's Implementing Organization:

Mining agency, Government of the Province of San Juan

Supporting Organization in Japan:**Related Cooperation:****1-1 Background of the Project**

The Government of Argentina designated the northwestern region the "Last Mining Frontier on Earth", and has actively promoted the mining industries through the introduction of foreign capital since the 1990s. Generally, measures to address mine pollution are taken, after there has been a negative impact on a community, resulting in massive cleanup and control costs. But if water pollution control measures in mining regions are taken in advance, an enormous savings in terms of health and cost is accrued through pollution-disaster prevention. Acknowledging the importance of promoting the mine industry as well as conserving the environment, the Government planned to establish a Mine Pollution Control Research Center (CIPCAMI) in the Province of San Juan, aiming at human resources development in the field of mine pollution control management technology. The Government of Argentina requested the Government of Japan to provide Project-type Technical Cooperation to accomplish its aims.

1-2 Project Overview

The Project transferred techniques related to supervision and the prevention of water pollution so that CIPCAMI, which was founded in May 1998, would be able to foster water pollution control technicians to prevent water pollution during the development of mineral resources.

(1) Overall Goal

Officials in charge of water pollution control from at least six Provinces will be trained at CIPCAMI.

(2) Project Purpose

The CIPCAMI will be able to train the staff pursuing water quality control in the field of mining activities.

(3) Output

- 1) The management system of CIPCAMI will be established.
- 2) Operation and maintenance of the Equipment will be possible by the staff of CIPCAMI.
- 3) Monitoring and control techniques on water pollution will be acquired by the CIPCAMI staff.
- 4) The services on monitor and control technique for water pollution concerning mining will be possible by CIPCAMI.
- 5) Training activities will be managed by the staff of CIPCAMI.

(4) Input

Japanese side:

Long-term Experts	7	Equipment	242 million Yen
Short-term Experts	9	Local Cost	34 million Yen
Trainees received	10		

Argentine side:

Counterparts	Total of 23 (presently 11)
Land and Facilities	
Local Cost	7.49 million Yen

2. Evaluation Team

Members of Evaluation Team

Leader: Masaaki KATO, Director, Second Technical Cooperation Division, Mining and Industrial Development Department, Japan International Cooperation Agency (JICA)
Technical Cooperation Planning: Toshitsugu ITO, Deputy Manager, Agency for Natural Resources and Energy, Agency for Nuclear and Industrial Safety, Ministry of Economy, Trade and Industry
Technical Transfer Planning: Keiichi GOTO, Vice-President, Japan Mining Engineering Center for International Cooperation (J-MEC)
Evaluation Management: Toru YOSHIDA, Second Technical Cooperation Division, Mining and Industrial Development Department, JICA
Evaluation Analysis: Takahiro MIYOSHI, Fukuyama Consultants Co. Ltd

Period of Evaluation

20 November 2001 - 28 November 2001

Type of Evaluation:

Terminal Evaluation

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

Mine pollution control has been an important issue of the Government of Argentina in promoting mining development. In the course of mining development, the importance of the pollution control will increase accordingly, and the relevance of the Project is deemed to be high in this regard. However, because of the economic stagnation of Argentina during the project period, the actual development of mines did not progress as much as was expected. For this reason, the needs of fostering water pollution control technicians did not rise to the level estimated at the beginning.

(2) Effectiveness

CIPCAMI held a Training Seminar for personnel responsible for water pollution control in the San Juan Province in September 2001. Even though it was under the guidance of the Japanese experts, it became possible for the CIPCAMI staff to foster water pollution control technicians at the basic level. Furthermore, according to the technical level monitoring evaluation done by the local consultant, the counterparts have reached to the following levels vis-à-vis the targeted level, "being able to implement matters of the evaluation without the expert's guidance (evaluation results of the local consultant have to be above 51%); for the ore dressing/refining field was approximately 49 percent, chemistry analysis field 41 percent, and waste water disposal field 45 percent. Although those figures have not achieved the expected level, it can be said that the technique concerning the supervision and prevention of water pollution has been attained to a basic level.

The facts mentioned above indicate that at the point of the evaluation, eight months before the end of the Project, the Project Purpose, "foster water pollution control technicians by CIPCAMI" will be attained to a basic level.

(3) Efficiency

The scale of the input was adequate. However, there were problems that severely interfered with the efficiency of the Project Purpose. These were as follows. The beginning of the inputs from both countries was delayed. Some of counterparts left or were dismissed, due to the change of administration or deterioration of the economy. The delay in the procurement procedures of chemical reagents and the expendables which were supposed to be borne as local costs by the Argentine side.

(4) Impact

Thanks to a series of public relations activities such as seminars, brochures and Website, CIPCAMI became widely known as the base of mine pollution control. Moreover, the expectation towards CIPCAMI seems to have increased gradually, for instance, as a part of the "Mine Exploitation Technology Support Plan", the World Bank requested an analysis on the rivers. Impacts such as the increased awareness on environmental preservation of mining personnel could also be identified.

(5) Sustainability

CIPCAMI has prepared a manual for managing the transferred techniques, as well as made a copy of the notes that were taken while the techniques were being transferred available for reference. Accordingly, the knowledge necessary to foster technicians is being stored and used commonly. Yet, due to the counterparts' frequent change and turnover, further upgrading of their skills is needed to conduct the sophisticated analysis commissioned by external organizations.

In terms of the financial aspect, the depressed Argentine economy and the low international price of minerals led to delayed progress in mining development. The shortage of aCIPCAMI's budget has become serious owing to the growing fiscal deficit.

In terms of the management, concern remains as to whether the "water pollution control technicians" fostered by CIPCAMI will officially certified by the only official office of certification, the Head of San Juan Province Economic Bureau. Due to this situation, which makes the certificate less attractive, CIPCAMI's raison d'etre has been undermined although its mission is to foster those technicians. The strategy of CIPCAMI, seeking the approval 'the water pollution control technician' as an official certification, has been repeatedly proposed by the Japanese side but certification has not yet been established.

Due to the reasons mentioned above, there are many obstacles that need to be addressed in maintaining and expanding the effect of fostering water pollution control technicians. The fostering has been made possible owing to the Project. Without the continuous cooperation from the administration to CIPCAMI, there will be little sustainability in terms of techniques, finances, and legislation in the future.

3-2 Factors that made the effects work

(1) Factors concerning Planning

N/A

(2) Factors concerning the Implementation Process

The existence of CIPCAMI and the importance of mine pollution control became widely known among the mine industry personnel thanks to brochures, Website and seminars. This has led to the good impact of increased recognition of environmental preservation.

3-3 Factors that impeded effects

(1) Factors concerning Planning

N/A

(2) Factors concerning the Implementation Process

The scale of the inputs was adequate. However, the economic depression in Argentina resulted in a CIPCAMI budget cut, which delayed the input of chemical reagents and the expendables. This stood in the way of achieving the output.

3-4 Conclusion

The relevance of the Project is high, when viewed from the point of pollution control in Argentina. This is because the Government is actively trying to take mine development forward. While it seems that achievement of the Project Purpose will be limited only to the basic technical level, there have been a few good impacts, alongside the inefficiencies in terms of the timing of the inputs. It has also been evaluated that, because of the fiscal deficit of Argentina, the sustainability is low.

3-5 Recommendations (Concrete action, proposition and suggestion towards the concerned project)

In order to secure sustainability, it is necessary to accomplish the following two points.

- (1) Make more efforts on public announcements regarding the activities and the service of CIPCAMI.
- (2) Publicly qualify the Water pollution control technicians legislatively to improve their public status.

3-6 Lessons Learned (Any matter in which might become of reference to discover, form, enforce and manage other similar projects)

- (1) Stagnation of the economy and the fall in mineral prices are external conditions to the Project; however, full monitoring is desirable so that an immediate action can be taken.
- (2) When providing cooperation to a newly-established organization within a project, efforts such as ensuring the budget, legislative status that will back up the organization's reason for existence, supporting and making proposals to the related ministries, are all necessary to secure sustainability.

3-7 Follow-up Situation

N/A