

Terminal Evaluation

Latin America and the Caribbean

I. Outline of the Project

- Country: Brazil
- Project title: "Course on Domestic Wastewater Treatment Techniques "
- Issues/Sector: Sanitation Sector
- Cooperation scheme: TCTP - Third Country Training Program
- Division in charge: Regional Dept. III
South America Division
- Total cost: ¥ 34.21 million (Japanese side ¥ 24.02 million)
- Cost per participant: ¥ 0.53 million
- Share of Japan's contribution: 70 %
(Note: These costs are referred to the period JFY 1999 ~ JFY 2002 - 4 courses. The 5th course for JFY 2003 is still being organized.)
- Period of Cooperation (R/D): December 17, 1999
(Extension): JFY1999 to JFY 2003
- Partner Country's Implementing Organization: SABESP - São Paulo State Sanitation Company
- Supporting Organization in Japan: JICA - Japan International Cooperation Agency
- Related Cooperation:

1. Background of the Project

The environmental effects caused by the discharge of wastewater, together with the limitation of natural and financial resources, demand urgent effective solutions for the increasing environment pollution problems.

SABESP - São Paulo State Sanitation Company, in the Federative Republic of Brazil, is the biggest environmental sanitation company in Latin America. It is an efficient and productive company that uses up-to-date technology for the treatment of domestic wastewater, also developing researches on the matter. Since 1976, SABESP maintains technical cooperation with JICA and has sent already 80 members of its technical staff for training in Japan. Moreover, 5 JICA experts have already come to SABESP for technical transfer. JICA has been supporting SABESP in its technical development and thus SABESP has become apt for transferring its technology for other developing countries.

Under these circumstances, the Government of Brazil considered important to carry out a training course about domestic wastewater treatment techniques under JICA's Third Country Training Program, to be implemented by SABESP, having the Latin America and African (Portuguese speaking) countries as target. Thus, the RD (Record of Discussions) was signed in Brasília on December 17, 1999.

2. Project Overview

The course was elaborated in order to technically qualify professionals with general knowledge and skills on Domestic Wastewater Treatment Techniques.

(1) Outputs of the Training Program

1) Output 1

Has the level of understanding of participants in the field of training subject improved?

Verification of understanding level in the field of training subject through: (a) Questionnaire for ex-participants, and (b) Visit to ex-participants and their institutions in Peru (SUNASS and SEDAPAL).

2) Output 2

Are the participants using the knowledge and skills obtained in the training course in their work?

Verification of works and activities of ex-participants through: (a) Questionnaire for ex-participants, and (b) Visit to ex-participants and their institutions in Peru (SUNASS and SEDAPAL).

3) Output 3

Was the exchange among participants, lecturers and training institution strengthened?

Verification of results of exchange among participants, lecturers and training institution through: (a) Questionnaire for ex-participants, and (b) Interview with SABESP organization team.

(2) Inputs (regarding the period JFY 1999 ~ JFY 2002)

Japanese side:

Short-term experts:	3 experts
Invitation expenses:	¥ 24.02 million
Total cost:	¥ 24.02 million

Brazilian side:

Lecturers, Staff:	56 persons
Training expenses: (Including Transportation)	R\$ 193,436.47 (¥10.20 million)
Total cost:	R\$ 193,436.47 (¥10.20 million)

II. Evaluation team

Members of Evaluation Team

JICA São Paulo Office (Commissioned to Ms. Ione Marisa KOSEKI CORNEJO, graduated at the University of São Paulo, School of Architecture and Urbanism, independent consultant)

Period of Evaluation

From November 1st 2003 to December 26th 2003

Type of Evaluation:

Terminal.

III. Results of Evaluation

1 Achievement of the Training Program

	JFY - 1999	JFY - 2000	JFY - 2001	JFY - 2002	JFY - 2003
Number of Applicants	40	42	43	57	Under organization
Number of Participants	14	15	18	18	
Countries participated	11	13	13	15	
Duration	1 month	1 month	1 month	1 month	

2. Evaluation Results

(1) Analysis on the Achievement in terms of Outputs

The understanding level of the knowledge and skills introduced in the Course among participants is very high (84% of questionnaire respondents have almost fully understood the knowledge and skills introduced in the Course). 32% of the respondents got more responsibilities and/or were assigned to a chief/coordination position in consequence of their participation in the course, and 68% reported to have proposed and/or implemented changes and/or new projects in the organization where they work using the acquired knowledge and skills. 82% of the respondents kept in touch with the Course related persons after returning to their countries, mostly with other participants. However, only a few kept in touch with lecturers and organization staff. Those who didn't keep in touch reported to have tried to or wanted to.

As for the achievement in terms of outputs, we consider that Outputs 1 and 2 were achieved, whereas Output 3 was partially achieved although an important communication channel was created through the Course for further strengthening of networking and cooperation among ex-participants, organization institution, lecturers, etc.

(2) Relevance

The contamination of water resources by wastewater is a menace to the health of entire populations in Latin American and African countries, also posing a threat for the development of these economies. Nevertheless, till recently this issue was not given the due attention on the part of governments more preoccupied in expanding the levels of water supply. However, not disregarding the importance of universalizing water supply for the whole population, this measure can become inefficient in terms of health conditions if the water sources become polluted with the discharge of untreated domestic wastewater. Under such conditions, the training program was sufficiently organized to propitiate the participants with theoretical and practical information to make them key professionals in their organizations. 62% said the knowledge and skills acquired during the Course are "very much useful in their daily work", and 100% said to have disseminated the knowledge among coworkers after returning from the Course. For these reasons, the relevance of this project is considered high.

3. Factors promoting sustainability and impact of the Training Program

(1) Factors concerning to Planning

- Problems pointed out by ex-participants and/or verified by the SABESP organization team itself were corrected in the subsequent course, as consequence of the evaluation survey carried out by the organization team upon the completion of each course.

(2) Factors concerning to the Implementation Process

- Possibility of gathering various experts and of visiting various different WWTP and other related facilities allowing a rather complete overview on the "Domestic Wastewater Treatment Techniques", thus qualifying the participant as a professional with a broad and general understanding of the whole process.
- Possibility of information exchange among these experts (from SABESP, Universities and other Brazilian institutions, and Japanese experts) and the participants of various different countries of Latin America and Africa.
- Immersion in the course, considering that the participants are far from their day-to-day responsibilities and thus can concentrate in the studies.

4. Factors inhibiting sustainability and impact of the Training Program

(1) Factors concerning to Planning

- Duration of the course considering that various participants expressed their wish to deep the knowledge and skills obtained during the course (asked about recommendations to improve the course, 48% of the respondents recommended measures to extend/optimize the course duration).
- Participants lack a closer advisory during the elaboration of their Work Plans.

(2) Factors concerning do the Implementation Process

- Lack of an operative networking and cooperation structure among ex-participants and experts (lecturers/teachers) of SABESP and other participant organizations to allow a continuous learning process and flow of information.
- The Work Plans, elaborated during the course by participants, are not being followed-up after the course. This would be a good opportunity to render support for the ex-participants in the implementation of these plans considering that these are strongly related to the ex-participants current activities.

5. Conclusion

The TCTP on "Domestic Wastewater Treatment Techniques" is a very important training program regarding the needs and policies of the targeted countries which are now dealing with the overcoming of health and environmental problems caused by the lack of this kind of treatment. The participants of the course are qualified to have an excellent overall view of the subject and are apt to multiply the obtained knowledge and skills in their home organizations. The creation of an operative networking and cooperation among participants and experts from SABESP and other participant organizations, including the Japanese experts, is vital for the continuity of the learning process started with the Course.

6. Recommendations

The organizing institution - SABESP - is doing a very professional work in the organization of the TCTP on "Domestic Wastewater Treatment Techniques". Nevertheless, to improve the current TCTP, some recommendations shall be made: (a) Study about the possibility of extending the course duration, or optimizing the schedule in order to meet the learning demands of the participants; (b) Study about the possibility of extending the period of the Work Plan execution, with individual guidance and provision of individual computer set to speed up the work plan execution process; and (c) Study about a manner to strengthen the networking and cooperation among the participants and the experts (SABESP, other participant organizations, JICA) for the provision of further information about the topics presented during the course, and also for the follow-up of the ex-participants work plans support and implementation.

This last recommendation is very important and should be carried out through, for instance, an Internet Site for the Program, either hosted in JICA-SP site or in SABESP site, what should be more convenient. Through this Internet Site of the Program, the ex-participants and participant experts can exchange useful information through Discussion Forums; updated information can be render available through documents for download; ex-participants can discuss the development and evolution of their Work Plans with fellow ex-participants and lecturers, the e-mail addresses of ex-participants, experts, organization team can be updated to avoid the loss of contact among them; etc.

7. Lessons Learned

This training program is an important technology transfer instrument that opens up the minds of participants and respective organizations for the complexity and importance of the treatment of domestic wastewater, not intending to form experts. It is a starting point for a continuous learning and researching process that should be enhanced. The levels and interests of participants are different, as well as the Countries' development levels. The coexistence of these different social, cultural and technological levels is regarded to be very rich in the said learning process.

8. Follow-up situation

JICA and SABESP are analyzing the possibility of renewal of the TCTP agreement for another period of 5 years. At present, SABESP is organizing the 5th course of the first TCTP agreement.