

# Terminal Evaluation

## Latin America and the Caribbean

### 1. Outline of the Project

**Country:**

Federative Republic of Brazil

**Project title:**

Urban Railway Transport System

**Issue/Sector:**

City Traffic

**Cooperation scheme:**

Third-Country Training Program

**Division in charge:**

South America Division, Regional Department 3 (Latin America and the Caribbean)

**Total cost:****Period of Cooperation**

FY 1999 - 2003

**Partner Country's Implementing Organization:**

Empresa de Trens Urbanos de Porto Alegre S/A (TRENSURB)

**Supporting Organization in Japan:****Related Cooperation:**

#### 1-1 Background of the Project

In South American countries, inflow of population to urban cities has been so intense that it became a major subject to develop and expand the transportation system in the urban cities and their suburbs. Many of the urban cities depended on transportation systems such as bus, but it became more and more important to develop the railway systems that can make mass transportation possible. It was also necessary to improve the management skills of urban railway transportation and to train human resources. Empresa de Trens Urbanos de Porto Alegre S/A (TRENSURB), which operated the urban railway system with Japanese-made machinery in Porto Alegre, south Brazil, had sufficient technical background partly because it sent many of its staff to a group training course in Japan provided by JICA.

To cope with the above needs of urban railway transportation, the government of Brazil asked the government of Japan to implement a Third-country Training Program for Latin American and Portuguese speaking African Countries, designating TRENSURB as the implementing organization.

#### 1-2 Project Overview

The project implemented the Third-country Training Program in the field of urban railway transportation for Latin American and Portuguese speaking African Countries and taught techniques on urban railway transport.

##### (1) Overall Goal

The management of the public urban railway transportation system in Latin American and in Portuguese speaking African Countries is improved.

##### (2) Project Purpose

The management of urban railway transportation system of organizations that sent participants is improved by knowledge and techniques acquired

##### (3) Outputs

1) Participants acquire theoretical and practical vision about main and up to date techniques of planning, construction and operation of urban railway system.

2) Participants acquire general and specific knowledge and techniques in railway truck, signaling, rolling stock, rigid catenaries, traction energy and operating cost.

#### (4) Inputs

Japanese side:

Short-term Experts	2	Local Costs	212,238 US dollars (26 million yen)
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Brazilian Side:

Facilities	Local Costs	89,980 US dollars (11 million yen)
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Land and Facilities

Local Cost	170 million yen
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#### (5) Participant Countries

Cost Rica, Cuba, Mexico, Argentina, Chile, Colombia, Peru, Uruguay, Venezuela, Mozambique, Dominican Republic, El Salvador, Panama, Bolivia, Ecuador, Angola and Brazil.

## 2. Evaluation Team

### Members of Evaluation Team

JICA Sao Paulo Office  
(Commissioned to: Dr. Toshi-ichi Tachibana, University of São Paulo)

### Period of Evaluation

February 2003 - March  
2003

### Type of Evaluation:

Terminal Evaluation by Overseas Office

## 3. Results of Evaluation

### 3-1 Summary of Evaluation Results

#### (1) Relevance

The urban transportation systems in participant countries required more comfortable and satisfactory services to fulfill the needs of passengers in both quality and quantity. The training aimed to transfer knowledge and techniques related to public transportation. The project gave the opportunity for participants to actively share information among themselves and to discuss related matters. According to an evaluation given after the course, 98% of participants mentioned "the contents of the course were useful for their daily work", and they gave a good evaluation of the project for its information on cost reduction, and improvement of quality for transportation service.

#### (2) Effectiveness

According to the questionnaire survey, 93% of the ex-participants indicated "they could fully understand the contents of the course". Ninety-five point six percent (95.6%) of the respondents remained working in the same organization and disseminated the knowledge acquired in the course to their colleagues. They contributed to the improvement of the technical skill of the organizations involved.

#### (3) Efficiency

The majority of the participants from transportation system organizations had almost the same levels of knowledge, similar cultures, customs and language, which made the implementation of the training efficient. According to the questionnaire survey, about 90% of participants said that "lecturers were sufficiently qualified" and they were "satisfied with the contents of the training course". About 80% of participants indicated that the curriculum, textbooks and equipment provided in the training session were appropriate. More than 90% of them mentioned that they could fully understand the contents of the training, which helped them to implement the contents of the course efficiently. However, it might be necessary to improve the way the project was carried out, since the number of Japanese experts was insufficient, and the period of their dispatch was too short.

#### (4) Impact

According to the questionnaire 98% of participants mentioned "they utilized the knowledge and techniques acquired in the training in their daily work" and that their knowledge and technical levels were upgraded. Participants utilized the attained knowledge in the training and tried to solve problems and to improve the business of the organizations they were belonged to. They also held seminars and workshops to pass on the techniques to their colleagues.

#### (5) Sustainability

TRENSURB developed joint projects together with other organizations, and it is possible for TRENSURB to fund resources and techniques as an implementing organization.

As 96% of the ex-participants remained working in the same organization, they were in environments where they were able to utilize the learned knowledge. The creation of networks among all participants allowed them to keep in touch with each other and exchange information and ideas after returning to their countries. This kind of network should help to enhance the effects of training within the region, so that techniques can be continuously exchanged among them, and new techniques and information obtained.

### 3-2 Factors that Promoted the Realization of Effects

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#### (1) Factors Concerning the Planning

N/A.

#### (2) Factors concerning the Implementation Process

1) As TRENSURB had kept its equipment and facilities well maintained and had specialized instructors, the effect of the training was enhanced.

2) As high quality textbooks had been developed during the project's implementation period, participants were able to utilize the materials and pass on the acquired information in their respective countries.

### 3-3 Factors that Impeded the Realization of Effects

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#### (1) Factors Concerning the Planning

N/A.

#### (2) Factors concerning the Implementation Process

Although the equipment of the implementing organization was made in Japan, it has had no contact with a nearby Japanese manufacturer. Therefore, it took more time to acquire up-to-date information about the equipment.

### 3-4 Conclusion

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The training improved the knowledge and techniques of railway transport system management, and the participants tried to improve the technical level of the organizations they were affiliated with. The project thus fulfilled its original purpose.

### 3-5 Recommendations

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(1) It is necessary to improve the conditions of the classrooms as regards lighting, sound systems, slide projection systems and temperature control to enhance the facilities and efficiency of the project.

(2) The implementing organization is required to enhance its administrative service and to keep in touch by exchanging opinions with ex-participants, by giving technical consultation, and in order to support future training.

(3) It is recommended that JICA dispatch experts for all course topics so that the participants can learn advanced public railway transportation system in Japan.

(4) It is necessary to extend the project another five years to introduce techniques and experience in this field to the participants in Portuguese spoken countries.

### 3-6 Lessons Learned

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(1) The project made it possible to smoothly transfer techniques and deepen the exchange between these participants because the culture, customs and language of participants were similar. Such similarities are worth considering as criteria when selecting participant countries for a particular program, since it can enhance efficiency and facilitate the spread of education from the training.

(2) It is recommended that supplementary activities such as group learning, academic projects, discussions and technical visits to sites be promoted, so that the training can offer a wider scope of influence.

(3) It is necessary to implement on-site practice since practice is an effective method and it makes comprehensive technical instruction possible.

**3-7 Follow-up Situation**

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N/A.