Terminal Evaluation

Latin America and the Caribbean

1. Outline of the Project

Country:
Jamaica

Project title:
The Technical and Vocational Education and Training Improvement Project at Technical High Schools in Jamaica

Issue/Sector:
Technical Education

Cooperation scheme:
Project-type Technical Cooperation

Division in charge:
Second Development Study Division, Social Development Study Department

Total cost:
1,121 Million Yen

Period of Cooperation
1 May 1997 - 30 April 2002

Partner Country's Implementing Organization:
Ministry of Education, Youth and Culture (MOEYC), Jose Marti Technical High School

Supporting Organization in Japan:
Ministry of Education, Culture, Sports, Science and Technology

Related Cooperation:

1-1 Background of the Project

In Jamaica, the primary commodities such as bauxite and agricultural products account for 70 percent of exports. As the value of these products in international markets has been flagging and with Jamaica dependent on imports for most of its industrial products, a trade deficit has resulted. To improve the situation, the Government of Jamaica has been developing its tourist industry, promoting domestic production of products and expanding exports by improving the quality of textile and industrial products. However, the technical level of domestic companies was low and efforts to improve the trade balance were not producing the hoped for results.

Under these circumstances, the Government of Jamaica recognized that the fostering of middle-level engineers was a prime task and organized the "Technical and Vocational Education and Training Improvement Project (TVET project, 1995-2000) to strengthen its international competitiveness. The plan was aimed at establishing a practical technical education through teaching up-to-date techniques in technical high schools, one of the avenues of secondary education. In implementing the plan, the Ministry of Education, Youth and Culture identified Jose Marti Technical High School located in Spanish Town (the former capital) as a pilot school for vocational education in order to improve the technical education in four specialized fields (machine shop, Computer Assisted Drafting (CAD), electronics and auto mechanics). At the same time, The Government of Jamaica requested the Government of Japan, which has wide-ranging experience in these fields, to Project-type Technical Cooperation to achieve the aforementioned goals.

1-2 Project Overview

The Project aimed to improve the technical education in the four specialized fields of machine shop, CAD, electronics and auto mechanics. It also upgraded facilities and equipment in line with development of an educational curriculum and improved education, transferred techniques to the counterparts and implemented the training to the high school teachers at Jose Marti Technical High School

(1) Overall Goal

To Improve the quality of TVET in Jamaica

(2) Project Purpose

To conduct improved TVET in the fields of auto mechanics CAD, electronics and auto mechanics, machine shop at Jose Marti Technical High School as a pilot school for technical high schools in Jamaica.

(3) Outputs

1) To improve TVET in the fields of auto mechanics, CAD, electronics and machine shop at Jose Marti Technical High School.
2) To disseminate improved TVET to other technical high schools in Jamaica.

(4) Inputs

Japanese side:

Long-term Experts	12	Equipment	444 Million Yen
Short-term Experts	7	Trainees received	17

Jamaican side:

Counterpart	18
Land and facilities & local cost	61 Million Jamaican Dollars (171 Million Yen)

2. Evaluation Team

Members of Evaluation Team

Team Leader: Junsaku KOIZUMI, Special Technical Advisor, JICA
Education Policy: Yoshio SATO, Elementary adn Secondary Education Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT)
Cooperation Planning: Satoshi SEKIJOU, Second Development Study Division, Social Development Study Department
Evaluation Analysis: Kunio NISHIO, CRC Overseas Cooperation Inc.

Period of Evaluation

9 December 2001 - 23 December 2001

Type of Evaluation:

Terminal Evaluation

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

The Overall Goal and the Project Purpose were in line with the needs of the private companies in Jamaica. The cooperation in the four fields contributes to the TVET project in Jamaica.

(2) Effectiveness

The textbooks and manuals were developed and improved by the Japanese experts and counterparts. The pilot school, Jose Marti Technical High School, has implemented the in-service training to the 77 teachers in other technical high schools (2000-), and these teachers have disseminated the obtained technical knowledge to students at their 13 technical high schools. Judging from this, the Outputs of the Project have contributed to achieving the Project Purpose.

(3) Efficiency

The Inputs both from the Jamaican side and Japanese side were effectively linked to the Outputs. The timing and quantity of these inputs were appropriate. The counterparts efficiently utilized the provided equipment by the Project in training the teachers who took the in-service training. There was a delay in the construction of the extension of the auto mechanics workshop because of the lack of space for equipment. However, the dispatch of the Long-term Experts, Short-term Experts, provision of equipment and counterparts training in Japan were appropriately implemented.

(4) Impact

Although it is considered that more time is needed to achieve the Overall Goal, there are already many positive impacts. The Counterparts obtained the techniques and capacity to conduct the in-service training to teachers from other technical high schools and could revise the textbooks and manuals. Some managers of private companies demonstrated interest in the graduates of Jose Marti Technical High School. The counterparts who took the training course in Japan upgraded their techniques and knowledge and presented the key points of Japanese industrial high schools (e.g. to adopt teaching methods that in theory and practice are linked in the course curriculum) at the national conference in Jamaica and this positively impacted on other schools. There was no negative impact.

(5) Sustainability

The counterparts acquired the capability to implement the TVET courses at Jose Marti Technical High School to the teachers at other schools and will be able to continue the in-service training after the completion of the Project. To enhance its sustainability further, the Ministry of Education Youth and Culture should make a clear the positioning of Jose Marti Technical High School so that the Training can be disseminated to 13 other technical high schools. The construction of the extension of the auto mechanics workshop was delayed, but the operational budget was settled as scheduled by the Jamaican side. The educational budget represents 13 percent of the national budget, which shows the Government of Jamaica has great interest in educational reforms. Therefore, the appropriate budget assurance and smooth payments are expected from the Ministry of Education Youth and Culture. The equipment provided by Japan was in the good condition and appropriately utilized. The equipment and its spare parts can be purchased in Jamaica. The counterparts can maintain and operate the equipment and revise the textbooks and manuals. However, the Ministry of Education Youth and Culture should carefully maintain the equipment and facilities to ensure a long service life.

3-2 Factors that promoted realization of effects

(1) Factors concerning Planning

1) The cooperation in the four fields was consistent with of the Industry needs of Jamaica, and some managers of private companies were positive about recruiting graduates of Jose Marti Technical High School.
2) The techniques and knowledge of the teachers in other technical high schools were improved by implementing the in-service training to those teachers.

(2) Factors concerning the Implementation Process

Japanese experts collected information on technical and vocational education in Jamaica and developed a curriculum and textbooks in consideration of the social and economical conditions in Jamaica. Due to the efforts, the syllabus in electronics will be referred to the Caribbean Examination Council (CXC) test.

3-3 Factors that impeded realization of effects

(1) Factors concerning Planning

N/A

(2) Factors concerning the Implementation Process

1) As there is no section to introduce and distribute the improved curriculum nationally within the Ministry of Education Youth and Culture, a clear dissemination plan was not developed, and the model curriculum was not appropriately adjusted according to the specialty (the number and kinds of equipment owned, lesson units, and grades and the degree of teacher authority) of each technical high school.
2) Some counterparts were allocated late or inappropriately (counterparts at the electronics department).
3) As the counterparts had many lessons for their students, there was a time restriction in transferring techniques by Japanese experts to counterparts.
4) Because of the delayed construction of the extension of the auto mechanics workshop, the technical transfer utilizing the provided equipment was launched fully from the fourth year of the Project.

3-4 Conclusion

There were some delays in installation of facilities and equipment, construction of facilities and allocation of counterparts; however, due to the efforts of both the Japanese and Jamaican sides, the Project was smoothly implemented as a whole. Jose Marti Technical High School sufficiently played the role of a pilot school for technical education in the four fields.

3-5 Recommendations

(1) It is important for Jose Marti Technical High School continuously to implement ins-service training to improve the technical and educational capacity of teachers in other technical high schools from now on, as it plays the important role of a model school in Jamaica.

(2) The Ministry of Education Youth and Culture should allocate a sufficient budget and personnel to operate and maintain the equipment for training because the equipment and facilities are essential parts of the training.

(3) The Ministry of Education Youth and Culture should provide other technical high schools with the same CAD facilities used in Jose Marti Technical High School.

(4) The laboratory of Electronics section should be prepared early.

(5) More teachers should be assigned to the Auto mechanics section because it is the most popular among students. It is also necessary to repair the leaks in the roof of the automobile maintenance workshop and take measures to shut out dust from the outside.

(6) The Ministry of Education Youth and Culture should take some measures to utilize the developed and improved technical and vocational education training curriculum in the Project at other technical high schools.

3-6 Lessons Learned

N/A

3-7 Follow-up Situation

Considering the aforementioned recommendations, two senior volunteers, "vocational education adviser" and "machinery maintenance adviser", were dispatched for one year in April 2003. The follow-up has been implemented to develop a system of disseminating the Outputs of Jose Marti Technical High School to 13 schools other. The "machinery maintenance adviser", in particular, was dispatched to organize the system for machinery maintenance and provide instructions on effective methods of using machinery.