

Terminal Evaluation

Asia

1. Outline of the Project

Country:

Malaysia

Project title:

International Seminar on Biotechnological Techniques in Tropical Medicine

Issue/Sector:

Health/ Medicare

Cooperation scheme:

Project-type Technical Cooperation

Division in charge:

First Technical Cooperation Division,
Social Development Cooperation Dept.

Total cost:

16 Million Yen (Seminar only)

Period of Cooperation

Fiscal Year 1998 - 2000

Partner Country's Implementing Organization:

Institute for Medical Research (IMR)

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

Project-type Technical Cooperation
Third-country Training program "International Seminar on Biotechnological Techniques in Tropical Medicine"

1-1 Background of the Project

The Government of Japan implemented the medical research project on tropical diseases at the Institute for Medical Research (IMR) from 1993 to 1995. Based on the outputs from the medical research project, and since there were no Seminar courses in other Asia-Pacific countries which could accept foreign participants, the Third-country Training Program "International Seminar on Biotechnological Techniques in Tropical Medicine" was implemented from FY1995. The seminar offered the chance to learn the biotechnological skills and techniques necessary for medical research, diagnosis and epidemiological study.

The Seminar was terminated in FY1997. However, there still remained a need for a seminar in this field because, already mentioned, no similar courses were available in the other Asia-Pacific countries. In addition, the medical levels of the Asia-Pacific country were improving, so a more concentrated Seminar course was necessary. The Government of Japan together with the Government of Malaysia had implemented the International Seminar on Biotechnological Techniques in Tropical Medicine (the Project) from August 1998 as an advanced course of "International Seminar on Biotechnological Techniques in Tropical Medicine" at the request of other countries.

1-2 Project Overview

The Seminar course is conducted for participants from Asia-Pacific countries who have a bachelor of science degree in biological science or a medical doctor's degree.

(1) Overall Goal

To improve the knowledge and techniques in the field of biotechnology in tropical medicine in Asia-Pacific countries.

(2) Project Purpose

- 1) To acquire theoretical and practical knowledge on various biotechnological techniques in the diagnosis of tropical diseases.
- 2) To strengthen the Asian-Pacific network for the practice of biotechnological techniques in tropical medicine.

(3) Outputs

- 1) Participants acquire new biotechnological techniques both in theory and in laboratory research.

2) Participants acquire the following techniques: to isolate total RNA, to prepare mRNA, to construct and screen the DNA libraries, to purify the recombinant fusion protein and to use it for immunodiagnosis.

(4) Inputs

Japanese side:

Short-term Experts	12	Local Cost	16 Million Yen (Seminar only)
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Malaysian Side:

Counterparts	12
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Land and Facilities

Local Cost	0.27 Million Malaysian Ringgit (9 Million Yen)
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(5) Participant Countries

Bangladesh, China, Fiji, Indonesia, Laos, Philippines, Papua New Guinea, Solomon Islands, Sri Lanka, Thailand, Vietnam, Western Samoa and Malaysia.

2. Evaluation Team

Members of Evaluation Team	JICA Malaysia Office (Consigned to the local consultant: IC Network Sdn. Bhd)
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Period of Evaluation	3 December 2001 - 28 March 2002	Type of Evaluation: Terminal Evaluation by Overseas Offices
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3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

According to the results of the questionnaire survey conducted at the end of course each year, most participants rated the course as being 'very relevant' and 'relevant' to the project purpose and felt that the objectives of the seminar were well-met with the needs. They also rated the Seminar contents as being appropriate for enriching their theoretical knowledge and practical skills in tropical medicine research and said that there was no problem on the Seminar approach and the contents.

(2) Effectiveness

The Seminar was effective for the participants to improve the knowledge and techniques in the field of biotechnology in tropical medicine, since all participants were able to pass the achievement test and the lecturers were satisfied with the participants' level of learning of practical laboratory techniques. Eighty percent (80%) of the ex-participants who gave answers to the questionnaire mentioned that they could understand the contents of the Seminar course, and all of them indicated that the Seminar Purpose was accomplished. Also, more than 90 percent of the participants said that the lecturers were 'very helpful' or 'helpful' in providing feedback to their queries and during discussions; therefore, the Seminar gave the positive effect of motivating participants to acquire the techniques and knowledge. Another questionnaire survey to ex-participants was conducted to measure impact of the Seminar; however, the response rate was too low (10 out of 81, 12%) to give a general statement from its results. Despite the above-mentioned limitation, the respondents indicated that they were able to apply their acquired knowledge and skills to their daily work, and would continue those activities.

(3) Efficiency

The Seminar was completed successfully, with most of the necessary basic knowledge and techniques covered within a period of only three weeks. Although there were some logistics problems, the planned Seminar program was efficiently conducted.

(4) Impact

Judging from the fact that all participants passed the achievement test at the end of the Seminar, they have attained the knowledge and techniques in the Seminar to a sufficient degree. All respondents answered that they made use of the attained techniques and knowledge in their daily work, and 70 percent of the respondents said that they disseminated the knowledge and skills to their colleagues. However, due to the low response rate of the questionnaire, it is difficult to evaluate to what extent ex-participants have actually disseminated their acquired knowledge and techniques.

The participants built a network of collaboration among themselves and the instructors including the Japanese Short-term Experts. According to the answers from the ex-participants, 80 percent said that they still kept in touch with other ex-participants and Short-term Experts in other countries, which showed that the network within the Asia-pacific countries for the tropical medicine biotechnological practice was strengthening.

(5) Sustainability

There is little concern on the sustainability of the Seminar course because the implementing organization, IMR, being supported by the Government, had no problem arranging lecturers because of its network of other organizations of higher education and research institutions in Malaysia. It was difficult to evaluate the sustainability from the technical point of view for the information acquired was insufficient to evaluate the sustainability of the participants' attained knowledge and techniques.

3-2 Factors that promoted realization of effects

(1) Factors concerning Planning

N/A

(2) Factors concerning the Implementation Process

- 1) Highly qualified and experienced trainers were arranged.
- 2) Participating countries have economic development levels and a cultural background relatively similar to those of Malaysia.
- 3) Participating countries are located in tropical climates, and both participating countries and Malaysia have faced similar diseases.
- 4) Participants were qualified and proficient in English.
- 5) Facilities and laboratory equipment used in the Seminar were sufficient.

3-3 Factors that impeded realization of effects

(1) Factors concerning Planning

N/A

(2) Factors concerning the Implementation Process

- 1) Limited time for participants to prepare in advance on the subjects taught in the Seminar.
- 2) Materials provided were insufficient for the practice of the isolation of total RNA in the Seminar.
- 3) There was no extra time for groups who failed to produce the DNA library on the first attempt to have a second chance to achieve the desired results.
- 4) There were some participants who did not have required level of knowledge and skills for the Seminar.
- 5) Limited time throughout the Seminar.
- 6) It was necessary to be more careful in selecting participating countries because not all of the participating countries dispatched a sufficient number of participants even though those countries are in a tropical zone similar to that of Malaysia. There are countries that do not have a sufficient number of scientists who met the qualifications for Seminar participation.

3-4 Conclusion

The Seminar was implemented successfully as a whole because the effects of the Seminar met the expectation of the participants from Asia-Pacific countries and that of their organization. The Seminar was improved every year and the insufficient laboratory equipment problem of the previous seminar was corrected in time for this Seminar. It was difficult to evaluate the impact and sustainability of the Seminar due to the lack of information; however, there was no major problem on efficiency, effectiveness or relevance.

3-5 Recommendations

- (1) For the sustainability of the Seminar, the Government of Malaysia should provide a fund for the South-South Cooperation or the Government of the participating countries should make funding available.

(2) Textbooks should be provided to the participants in advance so that they can be well prepared and have a deeper understanding before attending the Seminar. With a deeper understanding of the theories, even better results can be achieved.

(3) It is necessary to review the selection of the participants and the time allocated for lectures, preparation and the practice of the subjects and to take enough time for the contents of the Seminar. It is necessary to allow contingent time for repeating some practical work in case first results are not satisfactory.

(4) It is necessary to set up some form of monitoring system on the activities of all participants after returning to their countries through active correspondence such as publishing a journal or bulletin, mailing list and/or others. This would help to evaluate the sustainability and impact of the program.

(5) The participating country should pay the travel cost of their participants in order to continue the Seminar course in the future.

3-6 Lessons Learned

(1) Selection of participants should be carefully done, taking their career, their work, background, experience, and English proficiency into consideration.

(2) It is necessary to evaluate the activities even after the participants return to their country so that the effects of the Seminar and its sustainability can be monitored.

(3) It is necessary to maintain contact and follow-up on the activities of the ex-participants with the help of local JICA offices or the respective agencies in order to help gather information or monitor the extent on the sustainability of the Seminar outcomes among the ex-participants.

3-7 Follow-up Situation

The Third-country Seminar program, "Laboratory diagnosis of diseases related to Expanded Program for Immunization" will be put to practice for three years from FY2003 at IMR based on the achievements of this Project.