

Terminal Evaluation Report
On
*International Training Course on Tropical Diseases
In Brazil*

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JICA Brazil Office

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Summary

I. Outline of the Project		
Country : Brazil	Project title : International Training Course on Tropical Diseases	
Issue/Sector : Federal University of Pernambuco, Recife (PE)	Cooperation scheme : Third Country Training Program (TCTP)	
Division in charge: Keizo Asami Laboratory of Immunopathology (LIKA) Division	Dept.	Total cost U\$ 300,257.28 Yen Cost per participant : U\$ 7,148.99 Yen Share of Japan's Contribution : 70 %
Period of Cooperation	(R/D) : 2001 to 2005	Partner Country's Implementing Organization : Agência Brasileira de Cooperação (ABC)
	(Extension) : 8 to 9 weeks	Supporting Organization in Japan : Japan International Agency (JICA)
	(F/U) : 2005	
Related Cooperation :		

1 Background of the Project

The International Training Course on Tropical Diseases is yearly held at the LIKA (UFPE), in Brazil. The LIKA resulted from a Japanese/Brazilian government project represented by JICA and ABC, in 1984. The LIKA became a Reference Laboratory for Tropical Diseases and the course under question was implemented by the cooperation of the partner country, represented by JICA, in order to disseminate knowledge and transfer technology for developing tropical countries, i.e., target (15) Latin American countries and Portuguese speaking African countries. This course has been offered for about 10 years, and this document corresponds to the terminal report, comprising the 6th to 9th courses, since the 10th course will be given in the 2nd semester of 2005, when the project (Third Country Training Program) will end at LIKA.

2 Project Overview

In the TCTP program, professionals of the public health area were trained mostly by Brazilian experts in different tropical diseases, with lectures, laboratory practice, some field work and visits to institutions, which worked with tropical disease. The participants were evaluated and they also evaluated the course and the training institution.

(1) Outputs of the Training Program

The Project Cycle Management (PCM) methodology was used. Questionnaires were sent to ex-participants (44) of the course and interviews were made with staff components (11) of the LIKA, or questionnaires were sent. Moreover, a score was given to each answer, calculating percentages, as well as, arithmetic mean of scores, here called score means (SM). The scores and SM were ranked, to facilitate the interpretation of results.

1) Output 1

The output 1 concerns about the improvement of understanding on Tropical Diseases by the participants, and this improvement was seen to be achieved, since the SM was 9.4, ranked as excellent.

2) Output 2

The output 2 refers to the application of acquired knowledge and/or technology learned by participants in their own work, after returning to their respective countries. The output was also achieved, with the SM 8.4, ranked as good.

3) Output 3

The output 3 was also achieved and this relates to the institution strengthening by the interchange with ex-participants of the course. The SM was 7.0, considered good.

(2) Inputs

Japanese side :

Long-term Expert		Equipment	0	_____Yen
Short-term Expert	02	Local cost		_____Yen
Trainees received	44	Others	U\$	210,180.17 (Yen)

Brazilian's Side :

Counterpart		Equipment	0	_____local currency (___Yen)
Land and Facilities		local currency	0	(___Yen)
Local Cost	U\$ 141,600.00	local currency		(___Yen)
Others		_____local currency		(___Yen)

II. Evaluation Team

Members of Evaluation Team	Terminal report on International Training Course on Tropical Diseases JICA Brazil Office Consultant's name: Sumie Hoshino Shimizu
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Period of Evaluation	17/January/2005 ~ 18/April/2005	Type of Evaluation : Terminal Report
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III. Results of Evaluation

III-1. Achievement of the Training Program

The main objective of the International training Course on Tropical Diseases was to disseminate the knowledge on Tropical diseases and to do the technology transfers for the benefit of the developing countries. This objective was achieved satisfactorily, if based on the outputs 1, 2 and 3, in which the SM was ranked as excellent, good and good, respectively.

III-2. Evaluation Results

(1) Analysis on the Achievement in terms of Outputs

The adopted strategy by the institution succeeded in reaching outputs 1, 2 and 3. A) In relation to the improvement in the level of participant understanding on Tropical Diseases, the results were attained, since at the beginning of the course, most of them had limited acquaintance with the approached diseases. However at the end of the course, 44 participants had excellent (9.4) mean grade, being 20.5% with good scores and 79.5% with excellent scores, supporting consistently the achievement of the output 1. B) A significant number (< 90%) of participants became capable to implement in their work the knowledge and/or technologies learned in the course. About 5 of them, working in public health institutions, were readily placed in challenging position to deal with epidemic and endemic tropical diseases, and one, to work along with an international health organization. These data show that the outputs 2 were attained. The SM obtained was 8.4, ranked as good. This SM was estimated from finding that 6.2% of trainees had a moderate performance, 37.5%, good performance, and 56.3%, excellent performance in their work, at affiliated institutions. C) The interchange between the participants and the training institution has strengthened at significant (65.4%) degree. Some ex-participants tended to keep in touch with training institution in order to get new information, ask for expert consults, or continue their education in public health area through postgraduate courses. Three of ex-participants have already obtained Master's degree, and two are now applying for postgraduate courses. These facts are very positive for research institution as LIKA. Thus, the data indicate that the outputs 3 were significantly reached. The SM was 7.0, ranked as good, deriving from 8.6% answers with weak scores, 26,1% moderate scores, 52,2% good scores and 13,1% excellent scores.

Relevance

The training program was very necessary for target countries, due to the scarcity of specialist and professionals qualified on tropical diseases. A) Some ex-participants, right after the course, were asked to work at the Department of Health for controlling tropical endemic and epidemic diseases, as well as, to represent the country at OPS/WHO. About 88% ex-participants emphasized a great need (MS=9.8) for this type of training course. B) The transfer of appropriate knowledge and technology were made in a

best and fast way (SM=9.7), according to 93.8% ex-participants and the institution staff. C) The conditions for conducting the training course in Brazil indicated to be better than in Japan, because of favorable factors such as the similarities in cultural and social aspects, idiom, climate, living cost and traveling expense. Moreover there are similar tropical diseases, with the advantage of having experts of this area. About 88% ex-participants and the institution staff considered that Brazilian conditions were quite suitable, giving SM=7.5. D) The entrustment of the training program was quite reasonable, since the institution capacity and ownership improved (SM=9.0) and now this institution agrees that it is able to transform this training course into a specialization course, or even into a post-graduate course. The improvements of the referred to aspects were considered good by 43.0% components of the institution and, excellent, by 57.0% of remainders. E) The training program can be considered as meaningful to promote networking and cooperation among developing tropical countries. Due to few experts in tropical diseases, the ex-participants are potentially disseminators of knowledge and implementers of adequate technologies, moreover, some of them are capable to promote cooperation projects among developing countries. About 72% ex-participants and the institution agreed with this point of view (SM=7.0). F) There were many pros and few and not significant cons of conducting the International Training Course on Tropical Diseases in Brazil.

The available data demonstrate to be consistent with the initial objectives of the course under question. Thus, the relevance was high.

2. Factors promoting sustainability and impact

(1) Factor concerning to Planning

Promoting factors in reference to planning of the course were: the curriculum design which included main tropical diseases, approaching theoretical, practical and epidemiological aspects, introducing also new technologies; selection of highly qualified experts, professionals and technicians of the area; criteria adopted for the application and selection of candidates, allowing to join very motivated groups of participants interested in acquiring knowledge.

(2) Factors concerning to the Implementation Process

The staff of the institution, including qualified experts and professionals and technicians contributed for the implementation process. Factors that influenced this process were: A) the teaching didactics, in which the basic knowledge on tropical diseases was reviewed at the beginning of the course, lectures were well illustrated with slides and CDs. In the laboratory, participants were trained to handle new equipments and carry out different assays for the diagnosis of tropical diseases caused by tropical parasites, bacteria and viruses. B) Visits to the institutions working with tropical diseases. C) The general administration of the institution. D) Hidden factors such as, the leadership, willingness and personnel relationships which were potentially valuable to conduct to desirable aims.

3. Factors inhibiting sustainability and impact

(1) Factors concerning to Planning

There was no inhibiting factors concerning to planning, which could to be considered as significant.

(2) Factors concerning to the Implementation Process

There were three factors that could have inhibited the implementation process of the course. The first factor was the bureaucratic policy (UFPE and JICA) for the imported laboratory items, which caused delay in receiving, but, this could be solved beforehand. The second factor was the period of the course, which seemed short, unless the period of time had not been well managed. However, the period of time did not allow approaching with detail the topics on all tropical diseases. The third factor related to the period after the course, since participants had not informed the training institution about their performance at affiliated institutions and new addresses, which made either the follow-up study or the evaluation study to be difficult.

4. Conclusion

The present evaluation study indicates that the International Training Course on Tropical Diseases, held yearly in Brazil, was relevant and effective mainly for the target Latin American countries. The expected outputs were achieved in reference to the improvement of participants in understanding tropical diseases, the participants became capable in applying learned technologies and/or knowledge in their respective countries, and the strengthening of the Brazilian training institution by the experience acquired with participant interchangings. The course demonstrated to be essential for target countries, constituting basis to promote development and modify policies to cope with their public health problems related to endemic and epidemic tropical diseases. The strategy to conducting training course in Brazil was excellent and profitable for target countries due to the condition similarities as to the culture, idiom, climate, living cost, tropical diseases, etc., with the advantage of having experts of the area. These factors contributed to make participants easy and comfortable to learn and study. The capacity and the ownership of the institution have increased meaningfully. The adopted criteria were effective to select highly motivated participants, and the course relied on qualified experts, professionals, technicians of the area. The curriculum design consisted of lectures approaching 10 different topics, laboratory practices, using new technologies and equipments, and visits to institutions in endemic areas for tropical diseases. Potentially, the training program will promote networking and cooperation among developing countries, if one considers that some of ex-participants are already taking part in committees at national or international level engaged to prepare official procedures to deal with tropical diseases. Moreover, there was a good administration and management by the Brazilian institution in charge to offer the International Training Course.

5. Recommendations

LIKA can be transformed into a Training Center for Tropical Diseases, for target countries due to the experience accumulated by giving courses for about 10 years, including those previous 5 courses, not evaluated here. This Center can establish a network with other Brazilian scientific institutions or societies and offer different types of program. Courses can be given at LIKA or in target countries. In respect to the follow-up study or evaluation study, JICA should ask the training institution to keep in touch with participants, or vice-versa, for at least 5 year period, in order to facilitate the data collection for these studies.

6. Lessons Learned

Lessons learned: relationship, follow-up activities of ex-participants and leadership.

The relationship among participants as well as participants with the staff of the training institution should be stimulated more. These aspects can make a considerable difference in the further interchanging programs or network projects between countries, since there were among participants who were key elements from the public health institutions. Ex-participants should keep in touch with LIKA, informing about their activities, performance and new addresses for a period of about 5 years, in order to obtain consistent data for the follow-up and evaluation studies of the course. The training institution was conducting the project very well in terms of general administration and management. The interviews with the staff components of the LIKA showed clearly that the collaboration of highly qualified experts, professionals, researchers and technicians with willingness contributed for the success of the course, however, without a good leadership the outputs would not be achieved. These observed facts seem to constitute lessons to be learned, because they are hidden factors which can influence the pace of the course.

7. Follow-up Situation

This is a terminal report, but, in respect to the follow-up study of the training course, some difficulties were detected for tracking ex-participants. Although some ex-participants could be easily found through the register file of the training institution, and others due to their contact with LIKA, however, there were many who could not be found, because either they have changed jobs or they did not answer the questionnaire at all. So, these problems may be solved by their previous commitment to keep in touch with LIKA, informing the training institution about their activities, performances and new addresses, for a period of at least 5 years

Chapter 1 Outline of Evaluation Study

1-1 Objectives of Evaluation Study

The International Training Course on Tropical Disease has been held yearly, at the Keizo Asami Laboratory of Immunopathology (LIKA), Federal University of Pernambuco, Recife (PE), Brazil, for about 10 years. The objectives of the present study were to evaluate last four courses, particularly, the 6th, 7th, 8th and 9th, prior to the 10th course, when project on Third Country Training Program (TCTP), supported by JICA, will end. The overall performance of the courses was evaluated in terms of effectiveness and relevance, based on the PCM method, in which a system of scores, arithmetic score means (SM) and ranks were added, in order to facilitate the analysis and interpretation of the obtained data.

1-2 Members of Evaluation Study Team

Consultant: Sumie Hoshino Shimizu; Area of work: Tropical Medicine; Former Full Professor of the University of São Paulo (SP), Brazil.

1-3 Period of Evaluation Study

17 January to 18 April, 2005.

1-4 Methodology of Evaluation Study

The evaluation study was based on the PCM method, to which a system of score, score mean (SM) and rank was added. To each answer was attributed a score, varying from 0 to 10, mostly by ex-participants and/or components of the institution staff, responsible for the course under question. The SM is a simple arithmetic mean of scores, obtained by summing the scores given to each of the related answers, and dividing this sum by the number of answers. The score or SM was also ranked as: **poor**, for values varying from 0 to 2.90; **weak**, from 2.91 to 4.90; **moderate**, from 4.91 to 6.90; **good**, from 6.91 to 8.90; and **excellent**, from 8.91 to 10.

The work was carried out in four steps, as follows.

1) Data were collected with basis on previous annual reports, evaluations of the trainees, interviews with staff components of the training institution, evaluations of the institution by trainees, technical visit to the training institution to evaluate conditions, facilities among others. Also, aspects related to the candidate selection for the course, cost, management, administration and other pertinent issues were discussed during that visit.

2) Questionnaires were prepared in Portuguese and translated to Spanish and sent by e-mail, letters were also sent to those who did not have e-mails, by means of the international sedex, and interview was made by international phone call to the ex-participants. When the e-mails returned, letters were immediately sent, or when the letters returned, phone calls were tried. In respect to those staff components, who were absent during interviews at LIKA, e-mails were sent.

3) The collected data were analyzed and the work was concluded as to the validity of the course under question, expressed in terms of the effectiveness and relevance, as well as, issues about recommendations

and experience learned from training courses.

4) The terminal report of this evaluation study of the course and the summary document were elaborated in Portuguese and in English.

Chapter 2 Outline of the Training Program

2-1 Background of the Training Course

The Laboratory (LIKA) is an institution for research on tropical diseases and belongs to the Federal University of Pernambuco (UFPE), Recife, Brazil. The laboratory resulted from a 1984 cooperation project signed by Brazil and Japan, represented by the Agência Brasileira de Cooperação (ABC) and JICA, respectively. The LIKA became afterwards a Reference Laboratory for research on Tropical Diseases, because of the experience and knowledge accumulated, and strengthened with more than 40 researchers, most of them with doctoral degree obtained abroad or even in Brazil, with qualified professionals and experts of the area. Thus, the institution asked for the aid from JICA, in respect to the project on TPTC, by considering itself capable to contribute, helping other Latin-American countries and Portuguese speaking African countries, mainly due to the similarities existing as to the cultural and social aspects, idiom, climate and tropical diseases. Courses have been supported by JICA for the first period of 5 years, precisely, from 1995 to 1999 and after having been evaluated and approved, followed a second period comprised from 2001 to 2005, including four courses, which also had JICA's aid. This is the terminal evaluation of the second period, excluding that of the year 2005.

2-2 Summary of Initial Plan of the Training

(1) Course title	International Training Course on Tropical Diseases
(2) Number of participants a year	10 to 12
(3) Duration	8 weeks (2001 and 2002) 9 weeks (2003 and 2004)
(4) Year of cooperation	FY 2001 ~ FY 2004 (04 years)

Requirement for Application

(1) Level of knowledge and/or skills which participants are expected to have	Graduation in medicine, veterinary medicine, biology, pharmacy or similar academic background in public health area.
(2) Desirable current position/duties	Any position, but presently, engaged in tropical disease research.
(3) Years of experience in the sector/issue in question	At least, three year-experiences in the related field.
(4) Age limit	No age limit.
(5) Target countries	Latin American countries and Portuguese speaking African countries.

Chapter 3 Outline of the Training Program

3-1 Implementation frameworks

The procedures to participate in the International Training Course consisted of:	
1)	Application of the candidates according to requirements;
2)	Selection of candidates by stipulated criteria;
3)	The course included lectures, laboratory work, some field work and visits to the institutions for tropical diseases.
4)	Evaluation of trainees on ten topics, approaching: malaria, amebiasis, Chagas' disease, leishmaniasis, cell biology of pathogenic protozoa, schistosomiasis, filariasis, mycosis, infectious diarrhea and virosis.
5)	Evaluation of the course and institution by trainees.

3-2 Achievement in terms of Activities

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Number of Applicants	23	23	29	23		108
Number of Participants	10	10	12	12		44
Countries Participated	10	10	11	11		15
Duration	08 weeks	08 weeks	09 weeks	09 weeks		34 weeks

3-3 Achievement in terms of Activities

	Year 1	Year 2	Year 3	Year 4	Year 5	Average	Note if any revision in criteria during the course duration
Output 1	3	3	3	3		3	-
Output 2							
Output 3							
Output 4							
Output 5							

*Achieved: 3, Partly Achieved: 2, Not Achieved: 1

3-4 Achievement in terms of Input

Total cost: U\$ 300,257.38 local currency (_____ Yen)

Cost per participant: U\$ 7,148.99 local currency (_____ Yen)

Share of Japanese Contribution: 70 %

Japanese Side:

Short-term Experts	02 person	M/M
Training Expense	U\$ 210,180.17* Local currency	Yen
Others		
Total Cost	U\$ 210,180.17 Local currency	Yen

Brazilian Side:

30 %

Lecturers, Staff	232 persons	28 M/M
Training Expense	U\$ 141,600.00** Local currency	Yen
Others		
Total Cost	U\$ 141,600.00 Local currency	Yen

Observation: *Equipment was not included; ** This value exceeded the 30% (U\$ 90,077.21) stipulated for the project.

Chapter 4 Result of Evaluation

4-1 Analysis of Outputs

(1) Output 1

1) a. **Achieved** b. Partly Achieved c. Not Achieved

Describe the reason for the above judgment.

The output 1 was achieved in reference to the understanding of trainees on Tropical Diseases in four evaluated courses. It was observed that the understanding of the participants has improved considerably in last two years because of the increased willingness to learn much more than the curriculum. However in terms of their grade, there was no statistical difference among four evaluated courses. In respect to the trainees, 20.5% of them presented grades ranking as good (6.9 to 8.9), and 79.5%, as excellent (< 9.0). The evaluation in terms of the SM was 9.4, considered excellent.

2) What were the promoting (if you chose "a" or "b" in 1)) or impeding (if you chose "c" or "b" in 1)) factors?

(X) setting of outputs (X) requirement of application (X) willingness of participants
(X) curriculum target countries duration (X) text/materials (X) lecturers
(X) equipments (X) others (computer available for participants)

Describe the promoting/impeding factors in detail.

There are different promoting factors that allowed the output 1 to be achieved: requirements for the applicants to the course were shown to be important, the qualification of applicants seems to related to the willingness of participants; setting the outputs beforehand by the staff of the course avoided objective misleading; curriculum was well elaborated to approach main tropical diseases, using adequate text/materials, equipments and computer to search for scientific references by internet.

(2) Output 2

1) a. **Achieved** b. Partly Achieved c. Not Achieved

Describe the reason for the above judgment.

The output 2 was achieved, and refers to the performance of ex-participants after returning to their respective countries. The ex-participants were applying, in their work, the knowledge and technologies acquired from the training course. Some of them were working at the Health Department to elaborate some prioritized rules for the endemic areas of different tropical diseases and/or worldwide infectious diseases. Also, there was one of ex-participants who became a consultant for OPS/WHO. The SM obtained was 8.4, ranked as good. This SM was estimated from finding that 6.2% of trainees had a moderate performance, 37.5%, good performance, and 56.3%, excellent performance in their work, at affiliated institutions.

2) What were the promoting (if you chose "a" or "b" in 1) or impeding (if you chose "c" or "b" in 1)) factors?

(X) setting of outputs (X) requirement of application (X) willingness of participants
(X) curriculum target countries duration (X) text/materials (X) lecturers
(X) equipments others ()

Describe the promoting/impeding factors in detail.

The promoting factors are the same as mentioned for output 1, however, the curriculum was indicated to be the major factor. The approach on specific topics and the Brazilian experience in tropical diseases were useful to establish basis for a framework in other countries, in control programs for endemic tropical diseases.

Output 3

1) a. **Achieved** b. Partly Achieved c. Not Achieved

Describe the reason for the above judgment.

The output 3 was achieved, and relates to the institution strengthening by the interchange with ex-participants of the course. The institution has been strengthening with the ex-participants interchange, mainly, by their returning to the training institution in order to improve their knowledge with postgraduate courses. Up to now, three of them obtained Master's degrees, and others two, for the same reason, are now applying for the post-graduate courses. These facts are very positive for research institution like LIKA. The SM was 7.0, ranked as good, deriving from 8.6% answers with weak scores, 26,1% moderate scores, 52,2% good scores and 13,1% excellent scores.

3) What were the promoting (if you chose "a" or "b" in 1)) or impeding (if you chose "c" or "b" in 1)) factors?

(X) setting of outputs (X) requirement of application (X) willingness of participants
(X) curriculum target countries duration (X) text/materials (X) lecturers
(X) equipments others ()

Describe the promoting/impeding factors in detail.

The promoting factors are the same as for output 1, but, the lecturers indicated to be the major factor, because of their knowledge, researches and titles of doctor. These lecturers in general stimulated their students for a continuous study. It should be stressed that there is neither specialization course nor postgraduate course, in most of target countries.

(4) Overall judgment on the achievement of outputs.

The outputs were satisfactorily achieved in the International training Course on Tropical Diseases.

4-2 Relevance

(1) Relevance of the reasons for setting the training program

Write the evaluation teams opinion regarding the following issues, with concrete evidence the team has found through its research.

1) Judging from the development needs and policies of the target countries, was the training program necessary?

- The training program was very necessary for target countries, due to the scarcity of experts and professionals qualified in tropical diseases. Thus, there were some ex-participants, by working at the Department of Health, received right after the course the task to take part in a group for making important decisions for controlling tropical endemic and epidemic diseases, as well as, to represent the country at OPS/WHO. About 88% ex-participants emphasized a great need (MS=9.8) for this type of training course.

2) Was the training program the best way to transfer appropriate technology?

- The training program was the best and fast way (SM=9.7) to transfer appropriate technology for the stipulated period of 8 to 9 weeks, according to 93.8% ex-participants plus the institution staff.

3) Was the condition for conducting training better in the host country than in Japan? If so, why?

- The condition for conducting the training course in Brazil indicated to be better than in Japan, because of favorable factors: similarities observed in cultural and social aspects, idiom, climate, living cost and traveling expense. Moreover, tropical diseases are also similar, with advantage of having experts of the area. About 88.0% ex-participants plus the institution staff considered that Brazilian conditions were quite suitable, giving SM=7.5.

4) In case of TCTP, designing of curriculum, administration and management of the training course are entrusted and under the responsibility of training institutions in the host country. In this regard, was the entrustment of the training program reasonable in terms of improving capacity and ownership of the training institution?

- The entrustment of the training program was quite reasonable, since the institution capacity and ownership improved (SM=9.0) and now this institution agrees that it is able to transform this training course into a specialization course, or even into a post-graduate course. The improvements of the referred to aspects were considered good by 43.0% components of the institution and, excellent, by 57.0% of remainders.

5) Was the training program meaningful in terms of promoting networking and cooperation among developing countries?

- The training program can be considered as meaningful to promote networking and cooperation among developing tropical countries. In the target countries, due to few experts in tropical diseases, the ex-participants became after the course disseminators of knowledge and implementers of adequate technologies. Also they showed to be capable in discussing and contributing to make relevant decisions for controlling tropical diseases, as well as, potentially to promote work projects among interested countries in dealing with tropical diseases. About 72% ex-participants plus the institution staff agreed with this point of view (SM=7.0).

6) What were the pros/cons of conducting the training course in the host country?

- There were many pros and few cons of conducting the International Training Course on Tropical Diseases in Brazil. The pros were: A) there was a fast transfer of knowledge and technology to the participants from target brother-countries, speaking Latin derived idioms, where the public health problems are similar. B) There was no culture or social shock, and the comprehension level of the participants was high. One week was enough for Spanish speaking participants to become familiar with Portuguese idiom. C) Discussions with participants about their experiences in working with tropical diseases were profitable,

since from those raised questions new interesting ideas emerged to deal with public health problems. D) The course provided basis for some participants to work actively in their Public Health Departments, or even to work along with an international health organization such as OPS/WHO. E) There were Brazilian experts on different tropical diseases, capable to approach all 10 topics of the curriculum. F) On the standpoint of the Brazilian country, the LIKA is contributing and promoting scientific advance on tropical diseases.

- The main cons were: A) Although the period of time was considered excellent, it was short to cover with more details all those topics of the curriculum. B) The commercially imported chemicals and small imported laboratory items were some times difficult to be acquired, by bureaucratic reasons (UFPE and JICA), demanding time and, sometimes, these being delivered long after the course having ended. However this problem could be solved beforehand, not affecting the quality of the course.

(2) Appropriateness of Output Setting and Curriculum Design

Write the evaluation teams opinion regarding the following issues, with concrete evidence the team has found through its research.

1) Was the setting of output 1 and training components (lecture / practice etc....) appropriate?

- This assertion can be made based on excellent grades (SM=9.4) from 44 participants, as well as, on the evaluations of the courses made by participants, in which the SM was 8.6, ranked as good, since 14.3% of them gave moderate scores, 21.4%, good scores and 64.3%, excellent scores.

2) Was the setting of output 2 and training components (lecture / practice etc....) appropriate?

- Most of the ex-participants were able to implement the knowledge and technology learned from the course to their routine work, as well as, some of them are elaborating official rules and procedures to work with several endemic tropical diseases. The SM was 8.4, derived from 6.2% moderate scores, 37.5%, good scores and 56.3% excellent scores, showing the performance of ex-participants are good.

3) Was the setting of output 3 and training components (lecture / practice etc....) appropriate?

- On the standpoint that the extension courses after graduation are required to continuously promote new ideas, technologic developments and solution for many public health problems. The fact that the ex-participants have returned to the training institution looking for post-graduate courses can be considered very positive. The SM was 7.0, ranked as good. The SM resulted from 14.3% weak scores, 42.9% moderate scores and 35.6% excellent scores.

(3) Appropriateness of Requirement for the Applicants, and selection

Requirements for the candidate to apply and the selection criteria indicate to be appropriate, since SM obtained was 8.0, ranked as good. This value derived from 28.6% good scores and 71.4% excellent scores.

(4) Overall Judgment on Relevance

The International Training Course on Tropical Disease yearly held in Brazil is playing its role, i.e, fulfilling

the needs of the target countries, where there are few experts and professionals in tropical diseases. Brazil presents adequate conditions for implementing the course due to the similarities in aspects related to culture, idiom and other factors, which permit an easy transfer of knowledge and/or technology. The training institution planned and implemented course appropriately, relying on good administration and management, in addition to a competent leadership. Most of participants became thereafter disseminator of knowledge and users of the technologies they have learned and, potentially, they were apt to promote cooperation projects between developing countries. The expected results were attained. Thus, the relevance was high.

4-3 Conclusion

4-3-1 Factors Promoting the Effectiveness of the Training Program

Factors promoting the effectiveness of the training course were: the curriculum design which included main tropical diseases, approaching by theoretical, practical and epidemiological aspects, also introducing new technologies; criteria stipulated for the applicants and the selection of participants, which allowed to have groups of motivated and interested professionals for acquiring knowledge; and the qualified staff arrangement by the institution, including lecturers, professionals, experts and technicians. Moreover in the implementation process, adequate technical didactics, with substantial theoretical and practical examples, making participants to handle new equipments and doing laboratory examinations for the diagnosis of infections caused by parasites, bacteria and viruses. The general administration and management of the institution also contributed substantially for the course success. Nevertheless, leadership, willingness and personnel relationships indicated to be hidden factors, but, potentially valuable to conduct to desirable aims. The outputs were achieved, with the good performance of participants during and afterwards the course, besides the strengthening of the institution was promoted by participant interchangings.

4-3-2 Factors Inhibiting the Effectiveness of the Training Program

There were three factors that could have inhibited the effectiveness of the course. The first factor was the bureaucratic policy (UFPE and JICA) for the imported laboratory items, causing delay to be delivered. But, this could be overcome beforehand. The second factor was the period of the course, which seemed short, if the period of time was not well managed. This period did not allow approaching, with details, the topics on all tropical diseases. The third factor was the lack of information, after the course, about the condition of ex-participants, mainly new addresses, because there was no previous commitment to establish their regular touch with the training institution. However, information could be collected since some of these were still working in the same institution stated in the register files, others were in touch with the training institution, and few had notified about their new addresses to the last institution where they were affiliated during the international course.

4-3-3 Conclusion

The present evaluation study indicates that the International Training Course on Tropical Diseases, held yearly in Brazil, was relevant and effective mainly for the target Latin American countries. The expected outputs were achieved in reference to the improvement of participants in understanding tropical diseases, the participants became capable in applying learned technologies and/or knowledge in their respective countries, and the strengthening of the Brazilian training institution by the experience acquired with participant interchanges. The course demonstrated to be essential for target countries, constituting basis to promote development and modify policies to cope with their public health problems related to endemic and epidemic tropical diseases. The strategy to conducting training course in Brazil was excellent and profitable for target countries due to the condition similarities as to the culture, idiom, climate, living cost, tropical diseases, etc., with the advantage of having experts of the area. These factors contributed to make participants easy and comfortable to learn and study. The capacity and the ownership of the institution have increased meaningfully. The adopted criteria were effective to select very motivated participants, and the course relied on qualified experts, professionals, technicians of the area. The curriculum design consisted of lectures approaching 10 different topics, laboratory practices, using new technologies and equipments, and visits to institutions in endemic areas for tropical diseases. Potentially, the training program will promote networking and cooperation among developing countries, if one considers that some of ex-participants are already taking part in committees at national or international level engaged to prepare official procedures to deal with tropical diseases. Moreover, there was a good leadership, administration and management of Brazilian institution in charge of the International Training Course.

Chapter 5 Recommendations and Lessons Learned

5-1 Recommendations

5-1-1 Recommendations for Partner Country Side (Direction of Future Activities of Project)

The training program at LIKA was succeeded, but, a modified program approaching tropical diseases should be offered for the benefit of developing countries. LIKA can be transformed into a Training Center for Tropical Diseases, for target countries due to the experience accumulated by giving courses in last 10 years, including those previous 5 courses, not evaluated here. This Center can establish a network with other Brazilian scientific institutions or societies and offer different types of program. Courses can be given either at LIKA or in target countries.

5-1-2 Recommendations for JICA (Necessity for Follow-up Cooperation)

The International Training Course in Tropical Diseases supported by JICA was meaningful. Although this is the terminal report, it is recommended to follow-up the activities at LIKA, in case of JICA decide to help LIKA to become a Training Center for Tropical Diseases. To make a follow-up and evaluation studies for training courses, JICA should ask the training institutions to keep in touch with participants, or vice-versa, for at least for a period of 5 years, in order to facilitate the data collection for the above referred to courses.

5-2 Lessons Learned

5-2-1 Lessons Learned regarding Situations in Evaluated Country and Sectors (policy, technological level, social and cultural aspect, institution, economic and financial aspect, etc.)

Lessons learned: a hidden factor and follow-up activities of ex-participants. The data collected from the questionnaires suggested that, although there was no cultural shock in Brazil and all the participants of the course had been introduced to each other, discussed about their work, there were some who hardly remembered about their colleagues when returned to their respective countries. Thus, it seems that the relationships among participants as well as participants and the staff of the training institution should be stimulated more. These aspects can make a considerable difference for the interchanging programs or further network projects between countries, since there were among participants who were key elements from the public health institutions. Of course, the human personality varies, however, good relationships are the basis for a policy of understanding for further public health projects. Thus, relationship appears to be one of hidden factors, but, potentially valuable. Also, it was learned that ex-participants should keep in touch with LIKA, informing about their activities, performances and new addresses for a period of at least 5 years, in order to obtain consistent data for the follow-up and evaluation studies of training courses in Tropical Diseases.

5-2-2 Lessons Learned regarding Project Management (Finding, Formulation, Implementation, Evaluation, etc.)

Lesson learned: leadership. The training institution has conducted the project very well in terms of general administration and management. The interviews made at LIKA with the staff components showed clearly that the collaboration of highly capable experts, professionals, researchers and technicians with willingness contributed for the success of the course, however, without a good leadership and operation management, the outputs would not be achieved. These observed facts also seem to join to those referred to hidden factors required to attain the expected outputs.

ANNEX

1. Project Information

There were a total of 44 ex-participants, being one from Angola, three from Bolivia, two from Cabo Verde, three from Colombia, five from El Salvador, three from Ecuador, four from Guatemala, three from Guine Bissau, two from Moçambique, two from Nicaragua, four from Paraguay, three from Peru, three from Republica Dominicana, one from São Tome and Principe, two from Venezuela, and three from Brazil, who took courses from 2001 to 2004.

Information was gathered from: a) annual reports (2001 to 2004) available either in the JICA's office (Brasilia-Brazil) or in the LIKA/UFPE (Recife-Brazil); b) interview or questionnaire, with the staff components of the training institution; c) questionnaires of the ex-participants of the training course; and d) technical visit to the training institution to see the work conditions. For most of answers, scores varying from 0 to 10 were asked to the ex-participants and to the staff components responsible for the course.

We sent a total of 43 questionnaires by e-mails, because, there were some ex-participants with 2 or more e-mails, but, most of these (hotmails) returned to us after a while. However, 13 e-mails were answered correctly. Also, a total of 62 letters were sent by the International Sedex mail service, including those who did not reply the e-mails and others who did not have e-mails. Since many of these letters returned by not finding the addresses, new letters were re-sent to different addresses, either to their home or affiliated institutions. Only one letter was answered, whereas the remainders did not answer. Thus, international phone calls were also made to contact those who had phone number and did not answered letters or e-mails at all. As informed the JICA (Brazilian office), we made phone calls to 13 ex-participants, and we found out that most of these numbers did not exist or were out of service; in some cases, we were informed that the ex-participants of the course did not work in that stated institution any more or they were abroad taking some courses. Only two ex-participants gave interviews by phone.

It was learned that all the participants of the course should make a compromise with LIKA to keep in touch, informing about their activities after being back to their countries, given new addresses, and other results they obtained, etc. This procedure will be very helpful to perform follow-up and evaluation studies by JICA.

As below mentioned, 76,9% of the questions were answered by ex-participants of the course, based on their previous evaluations available at LIKA, plus, the questionnaires they answered in the present evaluation project. Moreover, 63.6% of the answers were obtained, mostly by interviews, from staff components responsible for the training course.

2. Summary of Input

In four years (four courses), the total cost was U\$ 300,257.38, however, the Japanese side input was U\$ 210, 180.17 (70%), and the Brazilian counterpart was U\$ 90,077.21 (30%), which exceeded, summing up U\$ 141,600.00.

3. List of Persons Interviewed

There were 11 coordinators for training participants in 10 different topics of the program, 6 of these coordinators were interviewed (January/2005) and one filled the questionnaire out (April/2005). We were informed that the remainders were absent for their official vacation, but, they never answered the questionnaire afterwards. So, there were 110 questions, but, 70 (63.6%) were answered.

Staff components interviewed (63.6%)

Drs:

Maria Elizabeth Cavalcante Chaves

Elisabeth Malageño de Santana

Maria Rosangela C. Duarte Coelho

Armando Marsden

Mércia Arruda

Abraham Rocha

Marlene Benchimol

4. Results of Questionnaire Survey

The questionnaires were made in Portuguese idiom for those living in Portuguese speaking African countries, and in Spanish, for the ex-participants from the Latin American countries. The translation from Portuguese to Spanish was made by a Researcher, Antonio dos Santos Rodriguez, member of the Brazilian Society for Nikkei Researchers. The results are summarized as below presented

Questionnaire Results

(International Course on the Tropical Diseases - Brazil)

There were a total of 44 ex-participants in the training courses, and 16 of these answered the questionnaire, and 28 remainders had already answered the questions no. 3, 4, 7, 8 and 9, when they had been evaluated at the end of their courses, along with other evaluations in respect to the training institution, curriculum, among other issues. Theoretically, a total of 396 (100%) questions were supposed to be answered by 44 ex-participants, however, under above referred to conditions, 144 questions were answered by 16 ex-participants and the remainder 28 ex-participants had already answered 140 questions. So, a total of 284 (76.9%) questions were answered.

In other words, all the questionnaire containing nine questions (100%) were answered by 16 ex-participants, whereas 28 ex-participants answered five questions (no. 3, 4, 7, 8 and 9).

Observation: in scientific research of one year of therapeutic follow-up study, it is usual to have decrease in number of patients to about 10% or 20% of the initial number of patients.

The answers had scores ranging from 0 to 10 either for negative or positive aspects, and with these values the arithmetic score mean (SM) was calculated. The score and SM were ranked as **poor** for values ranging from 0 to 2.90; **weak**, from 2.91 to 4.90; **moderate**, from 4.91 to 6.90; **good** from 6.91 to 8.90; and **excellent**, from 8.91 to 10.

1. Analysis on Outputs

Item	Indicator	Means of Indicator
Was the level of understanding of participants in the area on the Tropical Diseases improved?	Level of understanding in the area of on the Tropical Diseases	The understanding seemed to be improved in last two courses, but, there was no statistical difference. The grades of ex-participants were: 9.2, 9.3, 9.3 and 9.6, in successive courses. SM=9.4, ranked as excellent: 20.5% gave good scores and 79.5%, excellent scores.
Did participants use the knowledge and technologies obtained in the training course in their works?	Works of ex-participants	The SM for the application of the acquired knowledge by ex-participants in their work was considered good, 8.4. The scores were moderate for 6.2% ex-participants; good for 37.5%; and excellent for 56.3%.
Was the interchange between participants and training institution strengthened?	Results of interchange between participants and training institution	SM = 7.0 indicates that the interchange between ex-participants and institution gave good results. 8.6% gave weak scores; 26.1%, moderate; 52.2%, good; and 13.1%, excellent. Three ex-participants became post-graduate students at the institution, obtaining Master's degree and two more are now applying for post-graduate course.

2. Relevance

Item	Indicator	Means of Indicator
Has the training program been necessary?	Development needs and policies of the target Countries	There was a considerable need based on ex-participant statements. SM for need was 9.8, and 12.5% gave scores varying from 6.91 to 8.90, corresponding to substantial need, and 87.5% gave scores

		from 8.91 to 10 of considerable need.
Was the training program the best way to transfer appropriate technology?	The way to transfer appropriate technology (training program)	The way was considered excellent, by ex-participants and the institution. SM = 9.7, and 6.2% gave good scores, and 93.8% excellent scores.
Was the condition for conducting training better in the host country than in Japan?	The condition for conducting training in Brazil (not in Japan)	Brazil was preferred by 87.5% ex-participants and institution, however, for 6.2% there was no difference; and for 6.2% remainders Japan was their preference. SM= 7.5 indicates the level of preference for Brazil was good, justified by similarities in culture, low cost, idiom, tropical diseases <i>in loco</i> and experts.
Was the entrustment of the training program reasonable in terms of improving capacity and ownership of the training institution?	Improving capacity and ownership of the training institution	The training program improved much the capacity and ownership of the institution, SM=9.0, ranked as excellent. About 43.0% answered that there was good improvement; and 57.0%, excellent improvement.
Was the training program meaningful in terms of promoting networking and cooperation among developing countries	Promoting networking and cooperation among developing countries	Potentially the program was good, with SM= 7.0. Factors to be taken into account: position of ex-participants in making part of committees of public health decisions, or groups to define the policy of the affiliate institution, and become OPS/WHO consultant. About 7.0% of ex-participants and institution considered difficult to promote network soon; 21.4% were trying to establish some work among ex-participants from different countries; and 71.5% considered potentially good.
Was the setting of outputs and training components appropriate?	Appropriateness of outputs setting and curriculum design	In general these aspects were considered as good, with SM=8.6 by ex-participants and institution. In last two years, the institution made efforts to improve these aspects. 14.3 % gave moderate scores; 21.4% gave good scores; and 64.3% gave excellent scores.

Was the requirement for the applicants and selection appropriate?	Appropriate of requirement for the applicants and selection	In general was considered as good, by the institution, with SM=8.0. 28.6% good scores, and 71.4% gave excellent scores. But, participants should have more understanding in English and be able to read published articles of their own area.
Has the training program presented new and up to date technologies?	New and up do date technologies	There were new and up do date technologies, and the SM was 8.8, ranked as good. For 21.4% ex-participants, the scores were good, and for 78.6% remainders, excellent.

5. QUESTIONNAIRES

A - In Spanish

B - In Portuguese

A - CURSO INTERNACIONAL EN ENFERMEDADES TROPICALES (TCTP)

(Cuestionario para ex-practicantes del Curso de Entrenamiento para Terceros Países)

1. Fue posible utilizar, en su trabajo, los conocimientos teóricos, prácticos, o tecnológicos que usted adquirió en el curso de entrenamiento (TCTP)? Dar un valor de 0 a 10 (puntuación) para el grado de utilización de estos conocimientos.
2. Al final del curso, le fue posible mantener algún intercambio con la institución o con alguno de los profesores suministrantes del curso? Dar un valor de puntuación de 0 a 10.
3. El curso de entrenamiento que participo, le fue necesario a usted, y a la institución en que trabaja o a su país?
4. En su opinión, el curso de entrenamiento fue la mejor manera de se aprender, y absorber la transferencia de tecnología? Podría haber una otra manera? Se hay, explique por favor como podría ser esta otra manera.
5. El curso de entrenamiento en Brasil, suministrado en idioma portugués, presenta ventajas (o no) en relación al mismo curso que podría ser ofrecido en Japón, en idioma ingles? Por que?

6. El programa de entrenamiento fue eficiente en facilitar algún tipo de cooperación o unión de trabajos entre los países en desarrollo? Usted por intermedio de sus compañeros podrá pedir participación en trabajos entre los terceros países?

7. En la observación, los criterios usados para se obtener resultados deseados con los participantes del curso, así como, para la selección de suministrantes y técnicos de laboratorio fueran adecuados? Dar puntuación de 0 a 10.

8. El programa de entrenamiento presento tecnologías nuevas y actualizadas? Dar puntuación de 0 a 10.

9. Le gustaría hacer algún comentario que sea necesario o importante en relación al curso? Por ejemplo, aumentar la duración del curso, transformarlo en un curso de especialización o en curso preparatorio para pos-grado, etc.

Nombre completo, País, Año que participo del Curso.

(Questionnaires translated from Portuguese to Spanish by the Researcher, Prof. Antonio dos Santos Rodríguez, Brazilian Society of Nikkei Researchers – São Paulo, Brazil)

B - CURSO INTERNACIONAL EM DOENÇAS TROPICAIS (TCTP)

(Questionário para ex-participantes do Curso de Treinamento para Terceiros Países)

1. Foi possível utilizar, em seu trabalho, os conhecimentos teóricos, práticos ou tecnológicos adquiridos no curso de treinamento (TCTP)? Dar um valor de 0 a 10 (pontuação) para o grau de utilização desses conhecimentos.
2. Após a realização do curso, você conseguiu manter algum intercâmbio com a instituição ou com algum dos professores ministrantes do curso? Pontuar de 0 a 10.
3. O curso de treinamento que participou foi necessário a você, à instituição em que trabalha ou ao seu país?

4. Na sua opinião, o curso de treinamento foi a melhor maneira de se aprender e promover a transferência de tecnologia? Poderia haver uma outra maneira? Se houver, por favor, explique como seria essa outra maneira.
5. O curso de treinamento no Brasil, ministrado em idioma português, apresenta vantagens (ou não) em relação ao mesmo curso que poderia ser oferecido no Japão, em idioma inglês? Por que?
6. O programa de treinamento foi eficiente em facilitar algum tipo de cooperação ou rede de trabalho entre os países em desenvolvimento? Você através de seus colegas conseguiu ou poderá conseguir algum tipo de trabalho entre os terceiros países?
7. Na sua observação, os critérios adotados para se obter resultados desejados com os participantes do curso, assim como, para a seleção de palestrantes e técnicos de laboratório foram adequados? Pontuar de 0 a 10.
8. O programa de treinamento apresentou tecnologias novas e atualizadas? Pontuar de 0 a 10.
9. Gostaria de fazer algum comentário que seja pertinente ou importante em relação ao curso? Por exemplo, aumentar a duração do curso, transformá-lo em um curso de especialização ou em curso preparatório para pós-graduação, etc.

Nome completo, País, Ano que participou do Curso.