

THE JOINT EVALUATION REPORT ON THE TECHNICAL COOPERATION
FOR
THE MATERNAL AND CHILD HEALTH SERVICES PROJECT
PREPARED BY
THE JAPANESE EVALUATION TEAM
AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE UNITED REPUBLIC OF TANZANIA

The Japanese Evaluation Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Prof. Dr. Hiroshi Shiku visited the United Republic of Tanzania from June 10 to 22, 1999 in order to evaluate the implementation and achievements of the Maternal and Child Health Services Project (hereinafter referred to as "the Project"), based on the Record of Discussions signed on November 7, 1994.

During its stay in the United Republic of Tanzania, the Team held a series of discussions and observations, and exchanged views with the authorities of the government of the United Republic of Tanzania.

As a result of the discussions, both parties agreed upon the matters referred to in the documents attached hereto.

Dar es Salaam, 21st June, 1999



Prof. Dr. Hiroshi Shiku
Leader
Japanese Evaluation Team
Japan International Cooperation Agency



Dr. G. L. Upunda
Chief Medical Officer
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3. Methodologies employed for the Evaluation

Methodology employed for the Evaluation are as follows;

- (1) Both parties of Japanese and Tanzanian sides formed the Joint Evaluation Team and submitted the Joint Evaluation Report. The list of the Joint Evaluation Team is attached as Annex 1
- (2) The Joint Evaluation Team employed the methodology of Five Items of the Evaluation (Annex 2-1) and submitted the Joint Evaluation Report
- (3) The Joint Evaluation Report submitted by the Joint Evaluation Team was authorized by the Joint Coordination Committee of the Project.

4. Achievements of the Project

- (1) Inputs by the Japanese side and the Tanzanian side are shown as Annex 3.
- (2) The Project is divided into three sites, and the achievements of each site are as follows;

1) Strengthening maternal and child health services in Tanga Region:

Basic survey regarding health conditions have been conducted in Pongwe Division of Tanga Municipality and Magoma Division of Korogwe District, and the results of the survey will be data-based soon.

Through the provision of equipment and renovation of hospitals, health centers and dispensaries, medical facilities of those areas have been greatly improved.

Through the seminars and workshops conducted as parts of the activities of the Project, TBAs were trained and they acquired the skills of safe deliveries and appropriate advice to the community. Besides, the communities decided through meetings to pay some incentives to TBAs and they are used also to secure the stable supply of TBA kits.

Although training for VHWs were also conducted regularly, achievements have not been visible.

2) Strengthening virological diagnostic capabilities of EPI diseases at MMC

Before the establishment of a virology laboratory at MMC, technical transfer concerning the virology diagnosis was conducted only through the training of the Tanzanian counterpart personnel in Japan. Both Tanzanian and Japanese sides shared the expenditures to convert a classroom of Microbiology Department to a virology laboratory. The new virology laboratory was temporarily opened in March 1999 to function as a national polio laboratory. The completion of the new laboratory is going to make isolation and identification of polio virus, tissue culture, potency testing of OPV, and serum antibody titration possible. Technical

Attached Document

1. Background of the Project

In the United Republic of Tanzania, maternal and child morbidity and mortality are still serious problems despite such efforts as expansion of vaccination coverage and health education for pregnant women. This is caused by a shortage of medical facilities and equipment, as well as medical and health workers. Problem led to the necessity to improve maternal and child health services through the rehabilitation of medical and health facilities, and human resources development.

Furthermore, the Government of Tanzania is attempting to eradicate poliomyelitis by the year 2000, in accordance with the aims adopted at the 41st WHO general assembly in 1988. However, capabilities in virological diagnosis of the polio virus were limited due to a lack of virology laboratories, and stool specimen from AFP patients had been sent to neighboring countries, such as Kenya and Zambia, for isolation and identification of the virus.

Based on the situation mentioned above, the Government of Tanzania requested the Government of Japan to implement a technical cooperation project to improve maternal and child health services in Tanzania. The requested project set out the following three objectives;

- 1) To improve maternal and child health services in Tanga and Korogwe
- 2) To strengthen virological diagnostic capabilities of EPI diseases (especially poliomyelitis) at the Microbiology Department of Muhimbili Medical Center (MMC), and,
- 3) To improve maternal and child health services at the Pediatrics Department of MMC

Following the discussions between the Tanzanian authorities concerned and the survey team dispatched by JICA, it was decided to implement "Maternal and Child Health Services Project in Tanzania." The agreed period of cooperation is five years from December 1, 1994 to November 30, 1999.

2. Objectives of the Evaluation

Objectives of the Evaluation are as follows;

- (1) To confirm accomplishments of inputs
- (2) To confirm accomplished effectiveness
- (3) To identify existing issues and to search their solutions
- (4) To confirm the lessons obtained through the Project activities and to utilize the lessons for the future technical cooperation

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cooperation in this field will be continued through the dispatch of short-term experts for the remaining period of the Project.

3) Strengthening the capabilities of activities directed toward the reduction of infant and child mortality rates.

Seminars and training to doctors, nurses and laboratory technicians have been conducted regularly. Through these seminars and training, "Laboratory Based Medicine" has become established, which can be evaluated as being epoch-making. In order to realize the idea, Special Pediatric Laboratory with necessary laboratory equipment for hematology, clinical chemistry and immunology was established. The equipment has been fully functioning. Furthermore, pediatrics wards have been renovated. Installation of incubator and electric wiring in neonatal units, and mosquito wire gauze, electric wiring, renovation of toilets, drainage system and incinerators in general pediatric wards have improved medical care and the sanitary conditions.

5. Evaluation

Evaluation summary is as follows. Evaluation in detail based on questions of "Five Items of Evaluation" is shown as Annex 2-2.

(1) Efficiency

1) Tanga:

The provision and the renovation of health facilities in Tanga were done timely and appropriately, and contributed to the improvement of health facilities of those areas. Besides, the training done by the Project have improved the skills of TBAs. Though it took long time for basic survey on the communities' health conditions, those results will be data-based. As a whole, activities input so far have brought stable efficiencies.

2) Microbiology:

As is seen in the delay of the completion of Virology Laboratory, input by Japanese and Tanzanian sides was done not appropriately enough. However, the minimum input of renovation, equipment provision and dispatch of Japanese experts is expected to bring a great efficiency.

3) Pediatrics:

Appropriate and enough input of Japanese experts, counterparts, equipment provision and facility renovation has contributed greatly to strengthening of capabilities of personnel in the laboratory, pediatric wards and the neonatal units. Since the completion of SPL (Special Pediatric Laboratory), the number of

samples examined has increased remarkably. Besides, installation of incubator in neonatal unit and renovation of toilets in general pediatric wards have brought a remarkable achievement within limited input.

(2) Effectiveness

1) Tanga:

Trained TBAs have acquired suitable skill of safer delivery using clean kits. In this sense, the effectiveness have been accomplished. However, since VHWs are expected to play too much roles, their effectiveness has been limited.

2) Microbiology:

It is hard to judge the effectiveness of Virology Laboratory since it was completed only recently. However, since Tanzanian personnel have already acquired the skill of virus isolation and identification, the effectiveness is expected to be achieved fully in the remaining period of the Project.

3) Pediatrics:

The effectiveness of strengthening of examination and diagnostic capabilities has been almost achieved technically. Further strengthening of the capabilities of medical doctors, nurses and laboratory staff and their coordination in the whole Pediatrics Dept. will contribute to the decrease of mortality rate of children.

(3) Impact

1) Tanga:

The trial introduction of cost sharing by villagers has played a positive role in strengthening self-sustaining activities of TBAs as well as in promoting interests of villagers in health problems.

2) Microbiology:

Diagnostic capabilities of polio in the laboratory are expected to contribute to the eradication of poliomyelitis on a basis of strengthening AFP surveillance. These diagnostic capabilities will also provide solid foundation of diagnosis and research on other viral diseases.

3) Pediatrics:

The Project activities have impacted greatly in introducing and expanding the new concept of contemporary "Laboratory Based Medicine ." The introduction of qualified laboratory system and the training of personnel to perform "Laboratory Based Medicine" is expected to bring ripple effects to the medical and health care system of the whole Tanzania.

(4) Relevance

The activities of the Project in Tanga, Microbiology and Pediatrics aiming at "Improving MCH Services", "Eradication of Poliomyelitis" and "Decrease of Mortality rates of Children" respectively, well correspond with the nation's policy. However, since these activities are rather independent of one another, they are too diversified for one project to be achieved.

(5) Sustainability

1) Tanga:

If the trial introduction of cost sharing by villagers being done in pilot areas become established and if the stable supply of TBA kits are accordingly guaranteed, safe delivery can be sustained and maintained. However, since VHW activities are volunteer based, they may not play significant roles in local medical care unless they are supported by their local community.

2) Microbiology:

Sustainability of the diagnostic capabilities of polio and other viral diseases in the laboratory can be fully expected. High sustainability of the laboratory can be maintained through strengthening cooperation with other relevant organizations such as WHO.

3) Pediatrics:

Diagnostic capabilities of various diseases can be sustained enough. The biggest problem at present is high cost of reagents and consumable and of maintenance of equipment used in the laboratory. Therefore, if the revenue collected from private patients expands, it will contribute to sustainability and improvement of the laboratory self-management. Furthermore, efforts should be made to solicit more funds from other sources.

6. Lessons learned

The Project experienced various difficulties since three different types of programs were conducted in one project. In such a case, enough and longer consultation should have been done between the two countries.

Pediatrics of MMC aimed at not only transferring technique of examination and diagnostic skills but also raising awareness of concept and system of contemporary "Laboratory Based Medicine". In technical cooperation, activities including systematization as well as technical transfer are essential.

7. Recommendations

(1) Tanga:

Tanzanian side should take the initiative to continue TBA and VHW training. Furthermore, TBA kits rotating system through cost sharing established in the pilot area should also be expanded to other areas. Follow-up research on appropriateness of referring patients to better medical facilities is recommended.

(2) Microbiology

Continuation of technical transfer of virus isolation and identification in the remaining period of the Project is necessary. Besides, it is essential to emphasize the role of the laboratory in AFP surveillance system.

(3) Pediatrics

It is essential to maintain the accuracy and consistency of laboratory test results and to strengthen the management capabilities of the laboratory. Medical care in general pediatrics wards and neonatal unit should be strengthened through collaboration of medical personnel such as doctors, nurses and laboratory staff trained for "Laboratory Based Medicine". Including these activities, functions of General Pediatrics Wards and Neonatal Unit should be strengthened to be a final referral medical institution.

(4) Request from Tanzanian side

Based on the results of the evaluation, Tanzanian side requested extension of the Project for a certain period of time. The Team promised to transfer the request to the Japanese Government.

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Annex

1. Composition of the Joint Evaluation Team
2.
 - 1) Evaluation Summary and Five Items of the Evaluation
 - 2) Results of Evaluation based on questions of Five Items of the Evaluation
3.
 - 1) Inputs by Japanese side
 - 2) Inputs by Tanzanian side

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Composition of the Joint Evaluation Team

Japanese Team

Dr. Hiroshi Shiku	Leader of the team, Dean, School of Medicine, Mie University
Dr. Minoru Sakurai	Director, Ueno City Hospital
Dr. Yasuo Chinzei	Professor, School of Medicine, Mie University
Mr. Takao Yoshii	Senior Researcher, National Institute of Infectious Diseases
Mr. Katsuhito Nishioka	Director, Educational Affairs Division, School of Medicine, Mie University
Mr. Akira Suzuki	Staff, Second Medical Cooperation Division, Medical Cooperation Department, JICA

Tanzanian Side

Ms. Lena Mfalila	Nursing Officer, Maternal and Child Health Services, Ministry of Health
Dr. W. Mwengee	Tanga Regional Medical Officer
Dr. S. Kimey	Korogwe District Medical Officer
Mr. H. Seifu	Acting Director, Tanga Municipality
Dr. D. Mwakagile	Head, Microbiology and Immunology, Muhimbili Medical Center
Dr. T. Kazimoto	Acting Head, Pediatric Department, Muhimbili Medical Center
Dr. J. A. Kitundu	In charge of Specialized Pediatric Laboratory, Pediatric Department, Muhimbili Medical Center

Project Experts and JICA Tanzania Office

Dr. N. Matsubayashi	Chief Advisor, JICA MCH Project
Mr. O. Sakamoto	Expert, JICA MCH Project
Mr. S. Noda	Expert, JICA MCH Project
Ms. T. Yamamoto	Expert, JICA MCH Project
Mr. M. Hayakawa	Project Coordinator, JICA MCH Project
Mr. T. Susaki	Assistant Resident Representative, JICA Tanzania Office

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EVALUATION SUMMARY AND FIVE ITEMS OF THE EVALUATION

Annex 2-1)

	Efficiency	Effectiveness	Impact	Relevance	Sustainability
<p>Overall Goal Maternal and child mortality and morbidity are reduced.</p>			<p>What kinds of positive and negative effects</p>	<p>Was the project's planning valid?</p>	<p>To what extent can the recipient country's institutions</p>
<p>Project Purposes 1. Maternal and child health services in Tanga and Korogwe Districts are improved. 2. Virology diagnostic capabilities of EPI diseases at MMC are strengthened. 3. The capability of MMC for the activities directed towards reduction of maternal, infant and child mortality rates is strengthened.</p>		<p>To what extent did the project achieve its purposes?</p>	<p>were seen directly and indirectly after the enforcement of the project?</p>		<p>organizations maintain the positive effects of the project after its completion?</p>
<p>Outputs 1.1 Implementation system for activities in Tanga is established. 1.2 The present situation of health services is grasped. 1.3 Traditional birth attendants can deliver babies safely. 1.4 Village health workers can educate their villagers on health care. 1.5 The competence of health service staff is strengthened. 1.6 The function of health centers is strengthened. 1.7 EPI activities in Tanga District are supported. 2.1. Diagnostic capabilities of EPI diseases in MMC Virology Dep. are improved. 2.2. Testing equipment to inspect viruses is installed in Virology Dept. of MMC and functions. 3.1 The implementation system for activities in MMC is established. 3.2 Basic medical information is firmly grasped. 3.3 diagnostic capabilities of medical staff in MMC Paediatric Dept. is improved. 3.4 Facilities and machinery in MMC Pediatric Dept. are properly equipped. 3.5 Clinical examination capabilities of laboratory technicians in MMC Pediatric Dept. are improved. 3.6 A laboratory in MMC Pediatric Dept. is kept in good conditions. 3.7 Management capabilities of a chief laboratory technician is improved.</p>	<p>How effectively were inputs transferred to Outputs?</p>				
<p>Input</p>	<p>Refer to Attached</p>				

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Result of Evaluation

1. Efficiency

	Questions	Result of Evaluation
1.1. Degree of achievement 1.1.1. Tanga District	1.1.1.1. To what degree has 1.1 been achieved?	almost accomplished. However, it is to be expected further collaboration with health administration
	1.1.1.2. To what degree has 1.2 been achieved?	almost accomplished
	1.1.1.3. To what degree has 1.3 been achieved?	accomplished
	1.1.1.4. To what degree has 1.4 been achieved?	fair
	1.1.1.5. To what degree has 1.5 been achieved?	fair
	1.1.1.6. To what degree has 1.6 been achieved?	almost achieved
	1.1.1.7. To what degree has 1.7 been achieved?	indirectly supported
1.1.2. MMC Microbiology	1.1.2.1. To what degree has 2.1 been achieved?	will be accomplished
	1.1.2.2. To what degree has 2.2 been achieved?	almost accomplished
1.1.3. MMC Pediatrics	1.1.3.1. To what degree has 3.1 been achieved?	accomplished

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Result of Evaluation

	1.1.3.2. To what degree has 3.2 been achieved?	fairly accomplished
	1.1.3.3 To what degree has 3.3 been achieved?	accomplished
	1.1.3.4 To what degree has 3.4 been achieved?	almost accomplished
	1.1.3.5 To what degree has 3.5 been achieved?	accomplished
	1.1.3.6 To what degree has 3.6 been achieved?	presently accomplished
	1.1.3.7 To what degree has 3.7 been achieved?	need further to be strengthened
	1.2. Appropriateness of Inputs (the timing, quantity and quality of inputs were necessary and sufficient to achieve outputs?)	1.2.1. Was the dispatch of experts timely and appropriate in terms of number and persons and field of specialization?
1.2.2. Was the provision of equipment/machinery timely and appropriate in terms of volume, cost, and degree of utilization?		almost appropriate
1.2.3. Was the counterpart training in Japan timely and appropriate in terms of number of persons and field of specialization?		almost appropriate Need for training in the fields of nurse, laboratory technician and laboratory maintenance engineer
1.2.4. Was the local cost load appropriate?		appropriate
1.2.5. Was the assignment of counterpart personnel timely and appropriate in terms of number and field of specialization?		Pediatric Dept. and Microbiology Dept. of MMC ; very appropriate Tanga ; almost appropriate

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Result of Evaluation

1.3. Have the inputs by the Japanese side been fully utilized?	1.3.1. Has the personnel been fully utilized?	fully utilized
	1.3.2. Has the equipment/machinery been fully utilized?	fully utilized
	1.3.3. Has the operational cost been fully utilized	utilized

2. Effectiveness

	Questions	Result of Evaluation
2.1. Project purpose-achievements : To what extent have project purposes been achieved?	2.1.1. To what extent has the project purpose (1.) been achieved?	partially achieved
	2.1.2. To what extent has the project purpose (2.) been achieved?	will be achieved
	2.1.3. To what extent has the project purpose (3.) been achieved?	will be achieved
2.2. Are the outputs consistent with the project purposes?	2.2.1. To what extent are the outputs consistent with the project purpose in Tanga?	consistent
	2.2.2. To what extent are the outputs consistent with the project purpose in MMC Microbiology Dept.?	consistent
	2.2.3. To what extent are the outputs consistent with the project purpose in MMC Pediatrics Dept. ?	consistent
2.3. Causes which have prevented Outputs from linking to Project Purposes	2.3.1. If the project purposes have not been achieved, when are they likely to be achieved?	Tanga; in 2-3 years, Microbiology Dept.; by the termination of the Project Pediatric Dept.; in 2 years

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Result of Evaluation

	3.3.2. If the project purposes have not been achieved, what is (are) the cause(s)?	Tanga; community based activities unexpectedly more time for implementation Microbiology Dept.; Delayed started due to shortage of resources Pediatric Dept.; Factors beyond of the Project (eg. many patients who come too late),
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3. Impact : positive & negative and direct & indirect situations produced by the project

	Questions	Result of Evaluation
3.1. Impact on project purpose level	3.1.1. Is there any positive situation produced by project outputs?	Tanga: Confirmation of effectiveness of TBA, Microbiology Dept.: Foundation of capability of virological diagnosis, Pediatrics Dept.: Laboratory based medicine is being established
	3.1.2. Is there any negative situation produced by project outputs?	None
3.2. Impact on overall goal level	3.2.1. To what degree has the overall goal been achieved?	At present not much, it will be expected in future
	3.2.2. How does the effectiveness of the project relate with the overall goal?	strong relation
3.3. Impact on others	3.3.1. Does the project have any positive or negative effects on economy, society, technology, environment and the whole country of Tanzania?	Tanga; Water Supply to the Health Center contributed to the surrounding inhabitants MMC ; Promotion of network to purchase equipment

4. Relevance of planning : Was the planning of the project appropriate and effective?

	Questions	Result of Evaluation
4.1. Relevance of overall goal level	4.1.1. Is the overall goal still consistent with the policy of MOH?	Yes
	4.1.2. Is the overall goal consistent with the Japanese government's ODA policy?	Yes
	4.1.3. Does the overall goal still match the needs of the people of Tanzania?	Yes

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Result of Evaluation

	4.1.4. If the relevance is low, what is (are) the cause(s)?	Not applicable
4.2. Relevance of project purpose	4.2.1. Is the project purpose (1.) still consistent with the policy of MOH?	Yes
	4.2.2. Is the project purpose (2.) still consistent with the policy of MOH?	Yes
	4.2.3. Is the project purpose (3.) still consistent with the policy of MOH?	Yes
	4.2.4. Does the project purpose (1.) still match the needs of the people of Tanzania?	Yes
	4.2.5. Does the project purpose (2.) still match the needs of the people of Tanzania?	Yes
	4.2.6. Does the project purpose (3.) still match the needs of the people of Tanzania?	Yes
	4.2.7. Is the project purpose (1.) consistent with the overall goal?	Yes
	4.2.8. Is the project purpose (2.) consistent with the overall goal?	Yes
	4.2.9. Is the project purpose (3.) consistent with the overall goal?	Yes
	4.2.10. If the relevance is low, what is (are) the cause(s)?	Not applicable

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Result of Evaluation

4.3. Relevance of project design	4.3.1. Was the planning of the project relevant to the overall goal, the project purposes and the outputs?	Yes, relevant primarily. limited relevance among three program (Tanga, Microbiology Dept. Pediatric Dept.)
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5. Sustainability

5.1. Organizational sustainability	Questions	Result of Evaluation
	5.1.1. Do MOH and MMC have the organizational system to continue the project activities?	Yes, existing
	5.1.2. Do MOH and MMC have the managerial and operational capacity to continue the project activities?	Yes, potentially
	5.1.3. Do MOH, health administration of Tanga and MMC coordinate with one another on the continuation of the project?	no direct coordination
	5.1.4. Do MOH and MMC coordinate with and other relevant organizations?	Yes (eg. WHO, GTZ, etc.)
5.2. Financial sustainability	5.2.1. Do MOH and MMC have enough budget or a source of revenue to continue the project?	not sufficient
	5.2.2. If they don't, con they expect it from other source(s)?	Yes, but not certain for adequate available resources to continue the Project
5.3. Material and technical sustainability	5.3.1. Is the delivery skill of TBA well maintained?	Yes, but continuous refresher training and supervision are needed.
	5.3.2. Is health care education skill of VHW well maintained?	same as above
	5.3.3. Is the skill for medical care staff well maintained?	same as above

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Result of Evaluation

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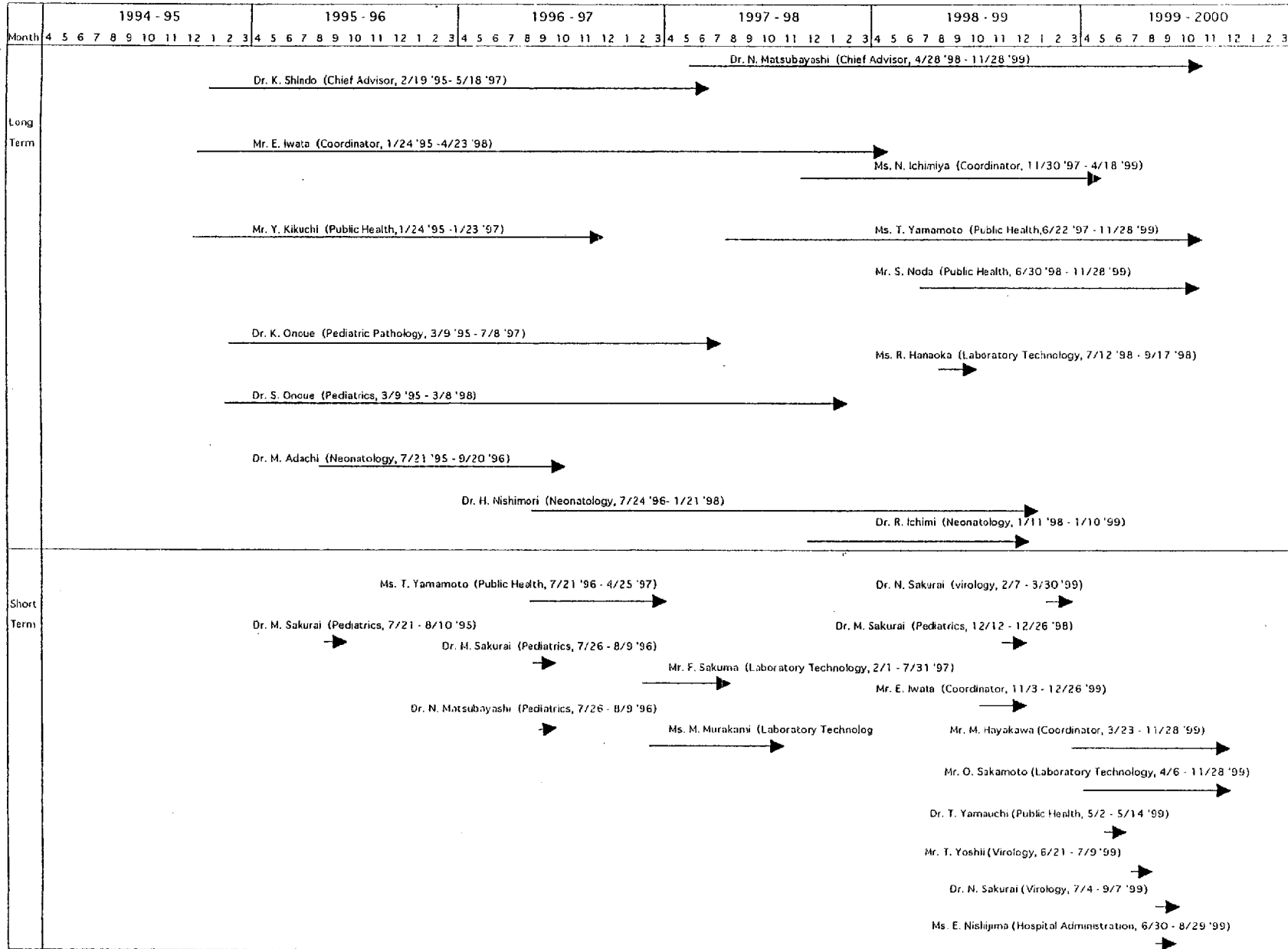
	5.3.4. Is the skill of virus examination technicians well maintained?	Yes, but continuous refresher course is needed.
	5.3.5. Is the skill of pediatric examination technicians well maintained?	Yes
	5.3.6. Is the diagnostic capacity of pediatric medical staff (doctors and nurses) well maintained?	Yes for doctors, but not sufficient for nurses
	5.3.7. Is the pediatric clinical laboratory well maintained by its staff?	technically maintained, but managerially not sufficient
		Yes, health sector engineer is existing, but not sufficient
	5.3.9. Are the facilities and equipment in MMC Virology Dept. well maintained?	Yes, possibly
	5.3.10. Are the facilities and equipment in wards, newborn babies wards and laboratory in MMC Pediatric Dept. well maintained?	Yes, but restructuring of maintenance system is highly needed especially for the laboratory

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Input by Japanese Side (1)

		JFY 1994 Apr. 1994~Mar. 1995	JFY 1995 Apr. 1995~Mar. 1996	JFY 1996 Apr. 1996~Mar. 1997	JFY 1997 Apr. 1997~Mar. 1998	JFY 1998 Apr. 1998~Mar. 1999	JFY 1999 Apr. 1998~Nov. 1999	Total
Experts	Long-term	2	5	7	9	7	4	
	Short-term		1	4	3	3	4	
C/P	to Japan	2	2	4	4	7	3	
	to third country						1	
Local Cost Support by JICA	General Expenses	¥1,600,000	¥6,000,000	¥7,000,000	¥5,923,000	¥6,000,000	¥4,008,000	¥30,531,000
	Expenses for Field Activities		¥1,100,000	¥6,000,000	¥4,927,000	¥6,000,000	¥3,143,000	¥21,170,000
	Special Support for LLDC			¥5,000,000	¥6,909,000	¥6,772,000	¥4,235,000	¥22,916,000
	Special Measures of the Mid-level Personnel Training			¥1,400,000	¥1,246,000	¥600,000		¥3,246,000
	Expenses for visiting the project conduction in other country			¥600,000				¥600,000
	Expenses for Emergency Control			¥890,000	¥1,269,000	¥2,830,000		¥4,989,000
	Total		¥1,600,000	¥7,100,000	¥20,890,000	¥20,274,000	¥22,202,000	¥11,386,000
Equipment and Materials Provided		¥15,000,000	¥51,623,000	¥36,000,000	¥41,620,000	¥44,018,000	¥15,243,000	¥203,504,000
Main Equipment	Land Cruiser (3)	Ultrasound Diagnostic System	Immunology Diagnostic System	Portable Ultrasonic Diagnostic System	Auto Cell Counter	Refrigerated Centrifuge		
	Computer	Clinical Chemistry Diagnostic System	Blood Gas Analyzer	Ice Flake Maker	Safety Cabinet	Deep Freezer		
	Refrigerator	Hematology Diagnostic System	PCR Apparatus	ELISA Reader	Reverse Microscope	Gas Sterilizer		
	Freezer	Microscope Cameras	Electrophoresis Apparatus		CO2 Incubator	Delivery Bed		
		Motorcycle	Clean Bench			Clinical Autoclave		
		MCH Kit for TBA/VHW	Autoclave			Ultrasonic Water Bath		

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Long Term

Short Term

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