

STUDY REPORT
ON
THE PROJECT FOR CHILD HEALTH
IN
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

MARCH 1998

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PREFACE

In response to a request from the Government of the Lao People's Democratic Republic, the Government of Japan decided to conduct a basic design study on the Project for Child Health and entrusted the Japan International Cooperation Agency (JICA) to conduct the study with the assistance of the Japan International Cooperation System (JICS).

JICA sent to Laos a study team from December 7 to December 13, 1997.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Lao People's Democratic Republic for their close cooperation extended to the team.

March 1998



Kimio Fujita

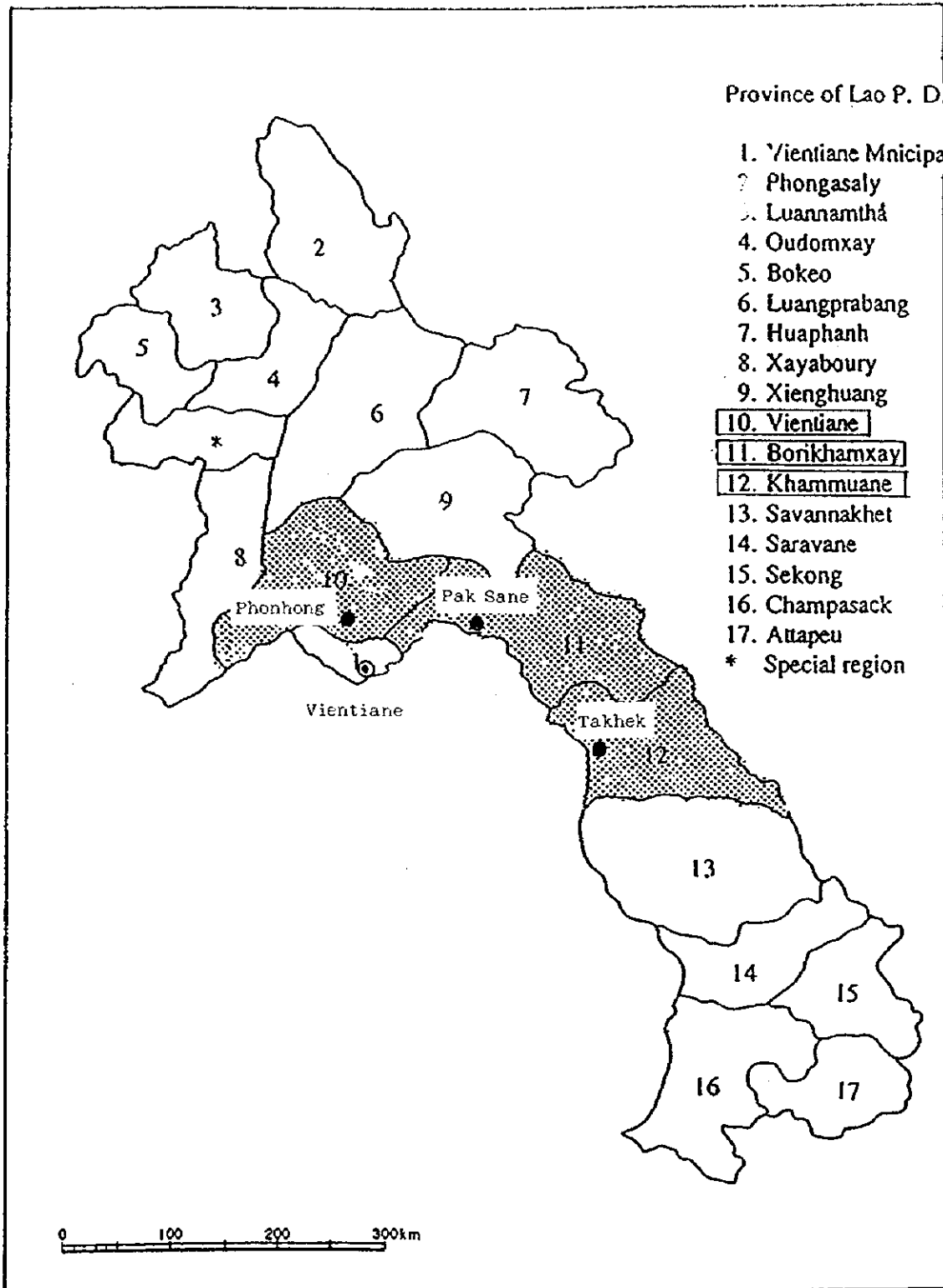
President

Japan International Cooperation Agency

LOCATION MAP



Project Site



Abbreviations

A D B	: Asian Development Bank
A M N D	: Anti Malaria Nuclear of District
A M S	: Anti Malaria Station
E U	: European Union
I M P E	: Institute of Malariology, Parasitology and Entomology
P H C	: Primary Health Care
T O T	: Training of Trainers
T P	: Treatment Post
U N I C E F	: United Nations Children's Fund
W B	: World Bank
W H O	: World Health Organization

Location Map
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Chapter 1 Background of the Request

According to the census of 1995, the population of Lao People's Democratic Republic (to be referenced as "Laos" hereafter) was 4.58 million and the increase rate of population from 1985 to 1995 was 2.5%. The population of the infants less than one year old and that of the children of less than five years old were 109,700 and 720,200 respectively. The population density was 19.3/km² and 83% of the population live in the agricultural area.

In 1995, the infant mortality was 104/1,000 and the mortality of children less than five years old was 170/1,000, which means that one out of six children dies before they celebrate their one year old birthday. The infant mortality was higher in agricultural area than in urban area, and that in the low income class was further higher.

Because Laos belongs to a typical tropical climate with high temperature and humidity, various endemic and contagious diseases occur. Main endemic and infectious diseases include dengue fever, malaria, various cases of vermination, iodine deficiency, diarrhetic diseases including cholera, dysentery, and typhoid, Japanese B encephalitis, rabies, tetanus, hepatitis, tuberculosis, Hansen's disease (leprosy), polio, measles, meningitis, and sexually transmitted diseases. Especially, the number of the cases of malaria surpasses others in the last several years and malaria has the largest number of onset. Table 1 shows the ten diseases having the largest number of patients and the ten largest causes of death.

Table 1 Ten largest diseases having the largest number of onsets and the ten largest causes of death in Laos (1995)

	Ten diseases having the largest number of onset			Ten largest causes of death		
	Name of disease	Number of cases	Morbidity (among the population of 100,000)	Name of disease	Number of deaths	Mortality (among the population of 100,000)
1	Malaria	73,831	1,611.0	Malaria	808	17.63
2	Pneumonia	25,962	566.7	Pneumonia	220	4.80
3	Diarrhea	19,699	430.0	Cholera	174	3.79
4	Dengue fever	7,781	169.8	Diarrhea	86	1.87
5	Tuberculosis	2,330	50.9	Meningitis	77	1.68
6	Cholera	1,368	29.9	Tuberculosis	36	0.78
7	Hepatitis A	1,341	29.3	Dengue fever	31	0.67
8	Meningitis	860	18.8	Hepatitis	28	0.61
9	Cerebritis	83	1.8	Cerebritis	16	0.34
10	Tetanus	50	1.1	Tetanus	6	0.13

Source: Materials of the Ministry of Health of Laos

The preparation of health care system of Laos is delayed due to various factors such as the financial poverty or lack of staffs, and cannot play the essential role of health care organization because of the lack of equipment, materials, and drugs, the lack of the knowledge of medical and health care staffs, and the low technical levels. In addition, the preparation of infrastructure such as road network is delayed and the access with medical facilities is poor, causing the use of health and medical facilities at low level.

Under the above mentioned state, the Ministry of Health of Laos has declared the objectives to reduce the mortality from malaria to 80% and the onset rate of malaria to 50% by year 2000 compared with those in 1996 as the standard, and plans to distribute mosquito nets and anti-malaria drugs with the cooperation of WHO and other international organizations. However, because the budget of the health and medical department of the government of Laos is limited, the effective measures for malaria to all the areas where malaria is prevalent is difficult to be implemented.

The initial request from the government of Laos to this Project included thirteen provinces and 250,000 mosquito nets to be distributed. However from the

present implementation state mentioned above, we explained that the Project must be reviewed and discussed with the Laos side. As a result, it was determined that the number of the provinces to be included in this Project would be reduced to three, Vientiane, Borikhamxay, and Khammuane, and the number of mosquito nests to be distributed would be reduced to 40,000. Therefore, the implementation of this Project would be sufficiently possible using the human resources and the budget of the Ministry of Health of Laos.

Chapter 2 Contents of the Project

2-1 Objectives of the Project

The objective of this Project is to reduce the number of the morbidity of malaria and support the prevention, diagnosis, and treatment of malaria through the implementation of this Project in the three provinces. Especially this Project will support to reduce the number of cases and the deaths of infants less than five years old and pregnant women infected with malaria.

2-2 Basic Concept of the Project

This Project plans to reduce the mortality and the morbidity of residents (especially of infants) in Laos where the occurrence of the cases of malaria is frequent, especially in Khammuane province where the implementation system is relatively prepared, Borikhamxay province next to Khammuane province, and Vientiane province close to the capital, Vientiane and the management by the Institute of Malariology, Parasitology and Entomology (IMPE) is easy. The purpose of this Project is to achieve the above mentioned objectives by procuring the equipment indispensable for the anti-malaria activities. However the number of districts in Vientiane province to be included in this Project will be four out of nine in that province. The reason for selecting these four districts is that a part of anti-malaria program has been implemented in that area and the implementation of this Project is considered easy. On the other hand, in the five districts excluded from this Project, the implementation system of this Project including the staffs for the malaria control program has not been prepared.

2-3 Basic Design

2-3-1 Design concept

This Project will procure the necessary equipment and drugs to support the malaria control in the three provinces and the equipment is divided according to the following four elements.

- A) Protection of residents from vectors such as mosquitoes which transmit malaria and other endemic disease:

Regular mosquito nets, mosquito nets impregnated with insecticide,

- insecticides to be impregnated
- B) Proper diagnosis of fever and the treatment through the administration of drugs:
Microscopes and anti-malaria drugs
- C) Monitoring, enlightening activity, and educational activity:
Computers, video decks, television monitors; and initial diagnostic tools of malaria
- D) Transportation equipment:
Vehicles and motorcycles

2-3-2 Basic plan

(1) Basic Concept

The basic concept on the main equipment is explained below.

- a) Regular mosquito nets and mosquito nets impregnated with insecticide
The initial request from the Ministry of Health of Laos calculated the number of mosquito nets as approximately 550,000 based on the objective that about one third of the nation could use mosquito nets after the anti-malaria program is implemented. In this Project, they requested Japan to support the malaria control program by the grant aid for procuring 250,000 mosquito nets in thirteen provinces after subtracting the number of mosquito nets to be procured by the World Bank, ADB, and other donors. As a result of the site study and the discussions held with the Laos side, this Project is determined to include three provinces in which the direct instruction by the IMPE is possible and the distribution system of mosquito nets has been prepared by considering the human resources, budget, and transportation measures of the Ministry of Health of Laos and the IMPE. Furthermore, the number of mosquito nets to be procured in this Project is determined as 40,000 to cover approximately 50% of the total households in the Project site by distributing one mosquito net to one household after considering the fact that the residents have already received mosquito nets and the number of mosquito nets that can be distributed in one to two years under the present system. In this Project, the following two types of mosquito nets will be used.
 - A: Mosquito nets to which the insecticide is impregnated into the fibers, which are the materials of mosquito nets, using a special technique and in which the insecticidal effect sustains for three to five years

B: Regular mosquito nets immersed in insecticide and having six months to one year of specific period for the insecticide to work

The mosquito nets of type A will be distributed in the remote areas (Zone 3) the access to which is difficult and those of type B will be distributed in the areas where the distribution is easy (Zones 0 to 2). The application work of insecticide for the type B mosquito nets will be implemented by the staffs related to the anti-malaria nucleus of district. The mosquito nets to be distributed in the Project area has been divided as follows.

- 1) The area close to the provincial capital and the access is easy (Zones 0 to 2)
- 2) Remote areas which need one to three days to access (Zone 3)

It was determined that the regular mosquito nets and the insecticide to be applied would be procured to area 1) mentioned above and the mosquito nets impregnated with insecticide would be procured to area 2). In addition, in the area 1), insecticide must be reapplied at one year after the procurement when the efficacy of insecticides will be lowered. At the time of the reapplication of insecticide, monitoring, re-enlightenment, and educational activity will be conducted by using the chance when the residents will be gathered. For the area 2), once a year monitoring will be conducted. The distribution plan of mosquito nets to the Project areas is shown in Table 2 below.

Table 2 Distribution plan to the provinces included in this Project

Name of province	Number of households (approximately 50% of the entire households)		Number of mosquito nets to be distributed	
	Zone	Number	Type	Number
Vientiane	Zones 0 to 2	8,060	Regular mosquito nets:	8,000
	Zone 3	3,600	Mosquito nets impregnated with insecticide:	3,500
Borikhamxay	Zones 0 to 2	4,850	Regular mosquito nets:	4,800
	Zone 3	6,050	Mosquito nets impregnated with insecticide:	6,000
Khammuane	Zones 0 to 2	7,610	Regular mosquito nets:	7,200
	Zone 3	11,165	Mosquito nets impregnated with insecticide:	10,500

b) Insecticide

The insecticide to be applied to mosquito nets and to be procured will be "Deltamethrine" which is generally used in Laos for the prevention of malaria, has no problem in handling, and is recommended by the WHO. This insecticide is determined to be applied to 20,000 mosquito nets once a year. An amount worth for using three years will be procured.

c) Anti-malaria drug

The request for the anti-malaria drug is made based on the anti-malaria guideline of the IMPE. For the patients infected with malaria, it is planned that chloroquine will be administered as the primary drug, and if the effect cannot be obtained with the administration of chloroquine, quinine and Fancidar will be administered.

Two pharmaceutical corporations in Laos (including the corporation established by the grant aid from Japan) are manufacturing chloroquine and other drugs. Thus the procurement ability and the prices of these two corporations must be reconfirmed again.

d) Initial diagnostic tools

Since the initial diagnostic tools can determine if the patients are infected with malaria or not by staining the bloods sampled at site, they can diagnose in more simple and prompt manner compared with the microscopic examination using slide glasses. In addition, since this kind of diagnosis does not need special training such as the one required for the microscopic examination, the local staffs including the public health nurses or health workers can diagnose the cases of malaria easily. Thus the prompt treatment by the administration of anti-malaria drug become possible. These tools are especially effective for the diagnosis of malaria in remote areas and for the prompt treatment afterwards.

Two types of tools, P. Faciparum (for the diagnosis of falciparum malaria) and P. Vivax (for the diagnosis of vivax malaria) will be procured. In order to measure the effects of distributing mosquito nets, an amount that can diagnose 20,000 residents in the Project areas (approximately 10% of the residents in the Project areas) for three times, one before distribution of mosquito nets and twice after that, will be procured.

e) Educational equipment

As the educational equipment, one set of video deck, monitor, and generator will be procured for each province at the anti-malaria station and in each district at anti-malaria nucleus of district.

In distributing the mosquito nets, it is necessary to conduct the enlightening education to various levels of residents on the onset, the route of infection, and the prevention of malaria, the necessity to immerse the mosquito nets into insecticide, the items to note, and the mechanism of examination and treatment. In enlightening and educating the residents, the video tapes are determined most effective from the past experiences of implementing the anti-malaria activities by the IMPE. Since the IMPE has already had the video tapes for the malaria control program campaign, they will implement the campaign for this Project at the village level. In addition, measures for electric outage and the activities to conduct at the places having no power source can be assumed, it is determined that the procurement of generators must be included in the Project.

The educational audio-visual equipment set to be procured for three provinces will be used for educating the staffs at the Anti-Malaria Nucleus of District (AMND). The staffs at the Anti-Malaria Station (AMS) who had participated the IMPE training of trainees (TOT: to be mentioned later in Section (5) on Distribution system, educational system and implementation schedule of staffs and residents) will conduct the TOT to the staffs of district AMS through the use of educational video tapes of the malaria control program made by the National Television Station of Laos under the supervision of the UNICEF by inviting the district staffs at the provincial AMS.

The educational equipment to be procured to seventeen districts will be used for the purpose of enlightening and educating the residents. When distributing the mosquito nets to villages and residents, the staffs of the AMND will transport these sets to each village by the vehicle, and conduct the enlightening and educational activities such as on the route of infection, the preventative method, and the treatment method of malaria as well as the necessity of mosquito nets impregnated with insecticide. In addition, the center of AMND is usually located next to the district hospital and plays the role of the laboratory of district hospital. Therefore the center of AMND will place the educational equipment in the waiting room for the patients and families visiting the said center and replay the educational videos.

One staff of provincial malaria control station and one to two staffs of the AMND will circulate the villages after formulating an efficient distribution plan.

Table 3 shows the number of staffs of these centers and stations.

0 Table 3 Number of staffs at the three provincial anti-malaria stations in this Project

Name of province	Number of districts	Number of villages	Name of district	Number of staffs	Name of province	Number of districts	Number of villages	Name of district	Number of staffs
Vientiane**	****4	-	AMS*	5	Khammuane***	8	-	AMS*	12
		68	Kasi	3			95	Mahasay	1
		80	Vangvieng	2			72	Nongbok	2
		76	Feuang	3			180	Hinboun	2
		65	Sanakham	2			111	Gnommalat	2
		289		10			126	Bualapha	2
Borikhamxay	5	-	AMS*	4			83	Nakay	1
		38	Thaphabat	1			54	Sebangphay	2
		63	Pakkading	1			71	Saybouathon	2
		39	Borikhan	3			792		26
		239	Khamkeut	4			Total	17	1,532
		72	Viengthong	1					
		451		14					

(Source: IMPE)

* AMS: Anti-malaria station in the province

** Vientiane province: The number of staffs in the entire province is 23.

*** Khammuane province: The number of en**** Four out of nine districts are included in the Project.

f) Microscopes

The number of microscopes necessary for the diagnosis of malaria is small. After examining the necessity of replacing some of the deteriorated equipment, the amount to be procured in the Project was determined.

Altogether sixteen microscopes, one for each AMND (excluding one district in Khammuane province), will be procured. In addition, reagents necessary for the diagnosis of malaria and the necessary amount of slide glasses have been determined. Because the Project areas are located in the humid environment, the cabinets to hold microscopes are determined to be procured at the same time to prevent the increase of molds to microscopic lenses. By considering the electric situation of the Project sites, five electrical cabinets will be procured to Vientiane province, four to Borikhamxay province, and three non-electrical cabinets using the desiccating agent such as silica gel will be procured to Khammuane province, and two non-electrical cabinets to Borikhamxay province.

g) Computers

The morbidity of malaria must be monitored to study the state of the cases of malaria after this Project is implemented as the evaluation work of the effect of this Project. However each facility including the IMPE has almost no equipment to collect or analyze the data. For this reason, it was decided to procure the computers necessary for processing the data to be reported to districts and provinces from the

residents in the Project areas. As the computers to be procured in this Project, it has been decided that one desk-top computer will be procured to each province, two to the IMPE, and two lap-top computers (to be used at the field) to the IMPE.

h) Vehicles

By considering the distribution system of the recipient country (the anti-malaria station of each province does not have any vehicle such as the truck), seven pick-up trucks will be procured for distribution and monitoring of mosquito nets including one for the IMPE and two for each province. As the vehicle to be used for moving the staffs who will conduct the education to the staffs of each AMND, one vehicle will be procured to the IMPE. Since the motorcycles are indispensable for the instruction tours and monitoring activities, total of seventeen motorcycles will be procured at the rate of one for each district.

The vehicles will be used not only for the distribution of mosquito nets, but for various enlightening and educational activities, as well as for monitoring purposes. By considering the road situation of the Project sites, the vehicles to be procured will be of four (4) wheel drive. As for the motorcycles, off-road type ones with luggage carrier will be procured.

2) Contents and the scale

The contents and the scales of mosquito nets, equipment, insecticide, and drugs will be determined in accordance with the specifications shown in Table 4 "Contents and the scale of the equipment". The distribution plan is shown in Table 5 "Distribution plan of mosquito nets and equipment".

Table 4 Contents and the scale of the equipment

No	Equipment name	Specifications	Amount
1	Mosquito nets	100% knit polyester, size: 75 denier, mesh: 156 holes/sq inch, dimensions: 190 (W) x 180 (L) x 150 (H), color: blue or green	20,000 pieces
2	Mosquito nets impregnated with insecticide	Made of polyethylene, size: 150 denier and above, mesh: 4 x 4 mm, dimensions: 190 (W) x 180 (L) x 150 (H), color: blue or green, insecticide to be Impregnated: Permethrin	20,000 pieces
3	Insecticide	Name: 1% Deltamethrine, storage life; 3 years, heat resistance: 30°C, (1,000 ml/bottle, 100 bottles/package)	50 packages
4	Easy diagnostic kit	(100 pieces/package)	600 packages
5	Anti-malaria drug: Chloroquine 250 mg	(100 tablets/bottle, 100 bottles/package)	25 packages
6	Anti-malaria drug: Quinine 250 mg	(100 tablets/bottle, 100 bottles/package)	10 packages
7	Anti-malaria drug: Fancidar	(100 tablets/bottle, 100 bottles/package)	10 packages
8	Giemsa stain	500 ml/bottle	500 bottles
9	Methanol solution	Methyl alcohol 500 ml/bottle	400 bottles
10	Xylene solution	500 ml/bottle	200 bottles
11	Biological microscopes (binocular)	Eyeiece x 10, power source: 220 V Object glass x 4, x10, x40, x100	16 microscopes
12	Dry storage cabinet for microscope: Type A	For one microscope Made of stainless steel (with glass window), electrical system, power source: 220 V	9 cabinets
13	Dry storage cabinet for microscope: Type B	For one microscope Made of stainless steel (with glass window), desiccating system	5 cabinets
14	Immersion oil	50 ml/bottle	640 bottles
15	Lens cleaning set	≅ 76 x 26 x 0.4 mm, 100 sets/package	26 packages
16	Slide glass	≅ 76 x 26 x 0.4 mm, 100 glasses/package 100 packages/carton	30 cartons
17	Lancets (sampling needles)	Dimension: ≅ 40 x 6 mm, disposable, sterilized, material: stainless steel, 200 needles/package, 100 packages/carton	25 cartons
18	Portable generator	Power output: more than 650 VA, less than 1.3 KVA, 220 V, fuel: gasoline	20 generators
19	Video system (14-inch)	Television: screen; 14-inch, power source; 220V, Video: for both PAL/MESECAM/NTS systems, power source; 220 V, with 5 video cassettes	17 sets
20	Video system (21-inch)	Television: screen; 21-inch, power source; 220V, Video: for both PAL/MESECAM/NTS systems, power source; 220 V, with 5 video cassettes	3 sets
21	Carrying case for video system, Type A	For 14-inch television and video, surface material: aluminum, inner material: plastic styrofoam	17 cases
22	Carrying case for video system, Type B	For 21-inch television and video surface material: aluminum, inner material: plastic styrofoam	3 cases
23	Desk-top computer set	Configuration: CPU, monitor, laser printer, keyboard, OS: Windows '95	5 sets
24	Lap-top computer set	Configuration: main body, small-size printer, OS: Windows '95 software: MS Office, MS Excel, MS Word 7, Anti Virus	2 sets
25	Facsimile	Power source: 220 V, paper size: 105 - 357 mm (for B4 size paper), transmission method: MH, MR, EFC, SSC, power source: 220 V	1 facsimile
26	Copying machine	Power source: 220 V, paper size: A6 to A3 size paper. magnification: 65% - 155%	1 machine
27	Small trucks	Four-wheel drive, double-cabin, displacement volume; 2800 cc, maximum weight: 2,800 kg, maximum load; 816 kg	7 trucks
28	Multi-purpose vehicle	four-wheel drive, displacement volume ≅ 2,800 cc, diesel engine, transmission: 5 MT	1 vehicle
29	Motorcycles	Off-road type, 125 cc, with carrier and helmet	17 motorcycles

Table 5 Distribution plan of mosquito nets and equipment

No.	Equipment name	Unit	Vientiane	Borikhamxay	Khammuane	IMPE	Total
1	Mosquito net Piece	Piece	8,000	4,800	7,200		20,000
2	Mosquito net with insecticide	Piece	3,500	6,000	10,500		20,000
3	Insecticide (1000 ml/bottle)	Bottle	2,000	1,200	1,800		5,000
4	Easy diagnostic kit	Piece	16,800	16,800	26,400		60,000
5	Anti-malaria drug, Chloroquine (1000 tablets/bottle)	Bottle	700	700	1,100		2,500
6	Anti-malaria drug, Quinine (1000 tablets/bottle)	Bottle	280	280	440		1,000
7	Anti-malaria drug, Fansidar (1000 tablets/bottle)	Bottle	280	280	440		1,000
8	Giemsa stain (500 ml)	Bottle	140	140	220		500
9	Methanol solution (500 ml)	Bottle	112	112	176		400
10	Xylene solution (500 ml)	Bottle	56	56	88		200
11	Biological microscope	Piece	4	5	7		16
12	Storing cabinet of microscope (electric system)	Piece	5	4			9
13	Storing cabinet of microscope (desiccating system)	Piece		2	3		5
14	Immersion oil (50 ml/bottle)	Bottle	160	200	280		640
15	Lens cleaning set	Set	4	5	17		26
16	Slide glass (100 glasses/package)	Package	840	840	1,320		3,000
17	Lancet (200 pieces/package)	Package	700	700	1,100		2,500
18	Portable generator	Piece	5	6	9		20
19	Video system (14-inch)	Set	4	5	8		17
20	Video system (21-inch)	Set	1	1	1		3
21	Carrying case for video system, Type A	Set	4	5	8		17
22	Carrying case for video system, Type B	Set	1	1	1		3
23	Desk-top computer set	Set	1	1	1	2	5
24	Lap-top computer set	Set				2	2
25	Facsimile	Piece				1	1
26	Copying machine	Piece				1	1
27	Small trucks	Vehicle	2	2	2	1	7
28	Multi-purpose vehicle	Vehicle				1	1
29	Motorcycles	Motorcycle	4	5	8		17

Chapter 3 Implementation Plan

3-1 Implementation Plan

3-1-1 Implementation schedule

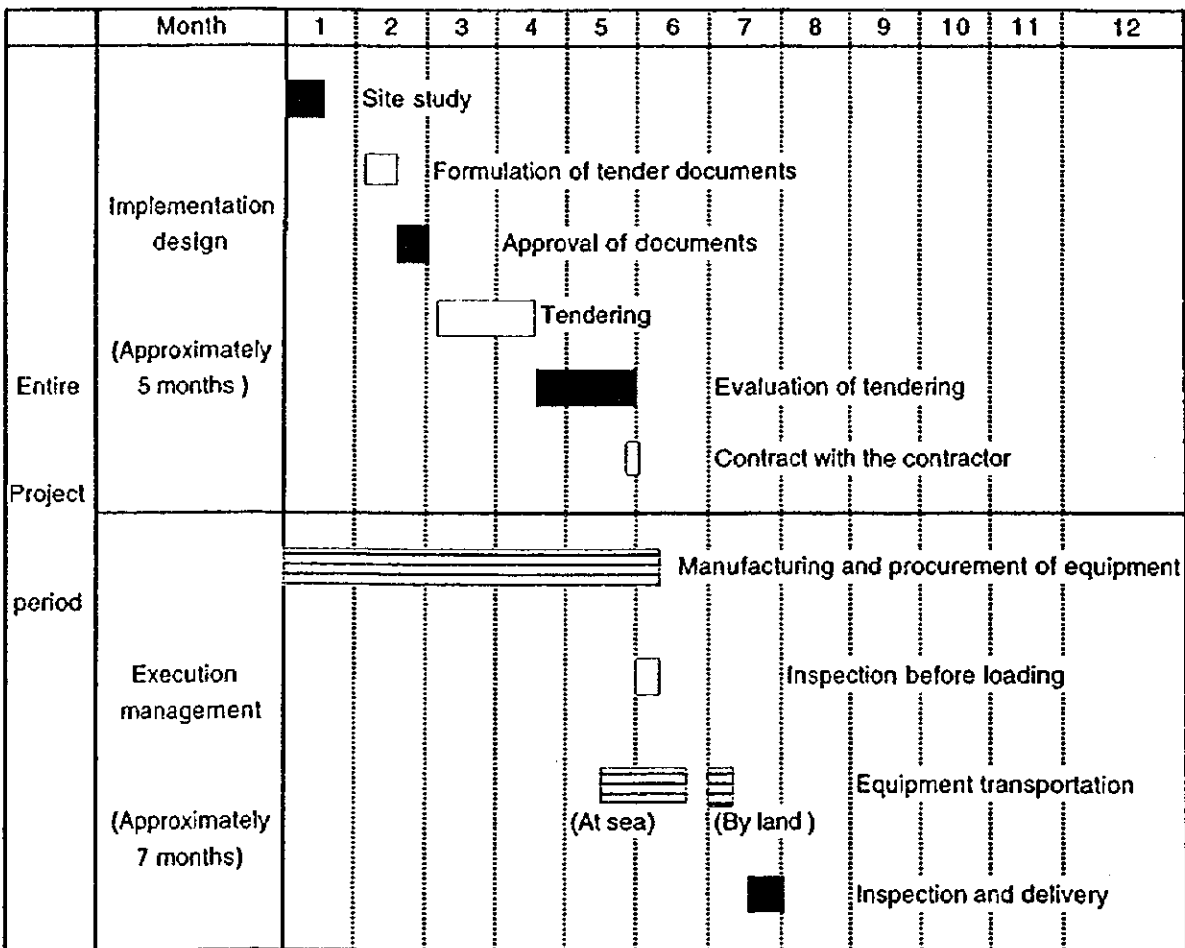
(1) Division of budgetary fiscal year
Single year plan

(2) Schedule

Entire project period (from E/N to delivery): 12 months

From E/N to contract with the contractor; 5 months

Delivery (From contract with the contractor to delivery): 7 months



■ Work at site □ Domestic work ▨ Procurement and transportation

3-1-2 Obligations of recipient country

On occasion to implement the Project, the obligation of Lao side is explained below.

- (1) To provide data and information for the Project;
- (2) To make security measures for Japanese concerned with the Project who during stay in Lao;
- (3) To pay for the Banking charge;
- (4) To ensure prompt unloading, tax exemption, customs clearance before entering in Lao P.D.R. and prompt internal transportation therein of the equipment and materials for the Project purchased under the Grant Aid;
- (5) To exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in Lao P.D.R. with respect to the supply of the products and services under the verified contracts; and
- (6) To maintain and use properly and effectively the equipment and materials provided under the Project.

3-2 Operation and Maintenance Plan

The maintenance of the mosquito nets to be distributed to the residents and their use state in the villages of Zones 0 to 2 will be conducted by the staffs of the AMS and the AMND of the Bureau of Health of province and district through the regular circulating activities to reapply insecticide to mosquito nets (once in a year) and the diagnosis and treatment of the cases infected with malaria, and the state will be reported to the IMPE. For the villages belonging to Zone 3, although reapplication of insecticide of once a year will not be conducted. The results of the surveillance through the circulating activity of every year will be reported to the IMPE. The agents (anti-malaria drugs and insecticides) will be stored and managed by the provincial or district health centers. The maintenance of vehicles and motorcycles will be controlled by the Provincial Health Office including those distributed to the anti-malaria nucleus of district, which is positioned below the provincial health office.

Chapter 4 Project Evaluation and Recommendation

4-1 Project Effect

1) Effects of implementing this Project

The fact that the implementation system of anti-malaria measures is in poor state has been already mentioned. However the Ministry of Health of Laos tries to activate the organizations and personal resources of provincial health bureau, district health bureau and even health posts included in this Project by implementing this Project and to strengthen the entire system and operate effective malaria control program based on the implementation of this Project. The effects obtained by implementing this project not only reduces the epidemic of malaria through the distribution of mosquito nets and anti-malaria drugs in the Project areas but also enables the epidemiological verification such as surveillance and monitoring as well as brings up personal resources related to the malaria control program. Since the government of Laos plans to enlarge the domestic malaria control program, implementation of this Project with the grant aid of Japan is considered to contain sufficient factors to become the model case of Laos.

2) Contribution to beneficiaries

This Project can contribute to the prevention of and the significant reduction of morbidity and mortality of the cases infected with malaria through the use of mosquito nets impregnated with insecticide to the residents of the epidemic area of malaria in the Project area. In addition, the IMPE has been conducting the training of the staffs in charge of malaria control program in the IMPE and on local level within the limited budget. With the implementation of this Project under the grant aid of Japan, the Project can be expected to contribute to extending the knowledge of beneficiaries on malaria by strengthening the enlightening and educational activities. By the way, the residents of Laos, especially those living in the remote areas far from the city areas have very poor knowledge on the route of infection and the prevention of malaria. There is a report that the residents' knowledge are such that malaria is a disease infected if they get into the forest and they recognize malaria as the "forest disease", which constitutes one of the important factor for large morbidity of malaria. Considering these points, the implementation of this Project is determined apt.

3) Children's health

To verify this Project from the standpoint of children's health, the children of Laos live in the epidemic area of malaria for a long time and have been infected with malaria repeatedly, and it is known that these children obtain acquired immunity which makes the symptoms mild. However if an infant having no experience of infection with malaria is infected with vivax malaria, severe symptoms may be manifested and may die sometimes if the treatment is delayed. In order to prevent the worsening of the symptoms of infants and children as well as their deaths, combination of the prevention of infection with malaria using the mosquito nets regularly impregnated with insecticide with the prompt diagnosis and proper treatment when they are infected with malaria is indispensable. In this Project, distribution of equipment necessary for the above mentioned measures and the drugs for treatment is planned and this Project is determined to significantly contribute to the reduction of morbidity and mortality of children from malaria when it is implemented.

4) Beneficial effects

Selection of Vientiane, Khammuane, and Borikhamxay provinces as the Project sites was narrowed down based on the fact that the implementation of this Project is possible under the present system of Laos as mentioned above. If this Project is implemented, the consciousness of residents in the three provinces will be improve and the morbidity of malaria in these three provinces will be further reduced. Then these provinces will become the model of the entire land of Laos and this Project will be finally considered to contribute to the reduction of morbidity of malaria. Therefore, the selection of the Project areas is considered apt.

4-2 Recommendation

In the Project areas, many residents have poor knowledge on malaria and the preventative measures for malaria is delayed due to unprepared system for the anti-malaria control program. In addition, because of the lack of treatment facilities and personal resources as well as the low technical level, preparation of treatment system of the diseases including malaria has been delayed.

Furthermore, because of the delay of the social infrastructure, there are many areas the access to which by the vehicles is very difficult. Thus the implementation of the anti- malaria program in Laos is forced to encounter difficulties. Based on the present state, it is required to bring up the personal resources mainly consisting of the

staffs for the malaria control program of provincial, district, and village levels as well as to establish a system to handle the prompt diagnosis and proper treatment at the village level and the malaria control program such as the consciousness of residents to prevent malaria.

In order to penetrate the malaria control program up to the resident level, which is the objective of the IMPE, education and training of the staffs related to the malaria control program are indispensable. For this purpose, this Project plans to procure the educational equipment. In order to open the seminars and/or training, the government of Laos must take sufficient budgetary measures and implement them as planned for raising the direct expenses necessary for the transportation and the training of staffs.

The insecticide to be applied to mosquito nets is said to be not harmful to human body, but human beings are also living creatures. Thus the IMPE which is responsible for the management of insecticide must prepare a sufficient management system for the handling of the insecticide. As mentioned before, when applying the insecticide to mosquito nets, it must be handled, stored, and disposed in accordance with the WHO guidelines. In addition, measures to decide the amount to take out the insecticide under the severe management and record the residual amount are necessary.

Member List of Study Team

1) Team Leader :

TAKE Toru
Deputy Director,
First Project Management Division,
Grant Aid Project Management Department
Japan International Cooperation Agency

2) Specialist of procurement :

ARAI Daizo
Planning and Survey Division,
Grant Aid Management Department
Japan International Cooperation System

3) Specialist of medicals equipment :

NISHINA Takekazu
Grant Aid Management Department
Japan International Cooperation System

4) Specialist of system :

SAKOH Nobuaki
Senior Coordinator
Grant Aid Management Department
Japan International Cooperation System

Survey Schedule

No	Date		Schedule	Stay
1	1997/12/07	S	Movement : Tokyo 10:33 (TG641) →Bangkok	Bangkok
2	1997/12/08	M	Movement : Bangkok 10:30 (TG690) →Vientian 11:40 Courtesy Visit to the Embassy of Japan and the JICA Laos Office Meeting with the specialist of Malaria	Vientian
3	1997/12/09	Tu	Courtesy Visit to the Ministry of Public Health and IMPE Meeting with the World Bank, ADB and EU	Vientian
4	1997/12/10	W	Site Survey (Vientian)	Vientian
5	1997/12/11	Th	Meeting with IMPE	Vientian
6	1997/12/12	F	Meeting with IMPE	Vientian
7	1997/12/13	S	(Mr.TAKE) : Review of other projects	(Mr.ARAI, Mr.NISHINA, Mr.SAKOH) : Movement Vientian 12:40 (TG691) →

List of Party Concened in the Recipient Country

Embassy of Japan in Laos	First Secretary	KOBAYASHI, Shigeki
JICA Laos Office	Director	TAKAHATA, Tsuneo KUDOH, Yasunobu IMOTO, Hiroyuki
	Specialist of Malaria	KOBAYASHI, Jun
IMPE (Institute of Malariology, Parasitology and Entomology)	Vice Director	Dr. PHylaseck NAPRAY VONG
	Vice Director	Dr. Bouasy HONGVAN VHONG
	Chief Adm. Unit	Dr. Rattanaxay PHETSOUV ANH
	Chief of Entomology	Dr. Sinone NAMBANYA
	Deputy Chief of Epidemiology	Mr. Souban PHOMMACHANH
	Chief of Epidemiology	Dr. Inpone VANGKONEVILA
	Staff of Therapeutique	Dr. Maniphoe KHANTHANONG
	Medical Officer	Dr. Boukham VAMACHONE
	Medical Officer	Dr. South OUDOMSOUK
	Staff of Entomology	Dr. Bounpone SIDAVONG
Foreign Communication Officer	Dr. Viengkeo HUMMAVAUH	
Department of Hygine and Prevention	Chief	Dr. Koukeo SISGURAH
World Bank	Belgian Agency for Development Cooperation	Dr. Frank HAEGEMAN
Asian Development Bank	Health Management Adviser	Mr. Thomas R. DAGNES
EU Malaria Control Programme	Technical Adviser	Mr. Jhon STOREY, MHPed
	Co. Director	Dr. Cyrille DUBOIS
MOH Project Coordination Unit	Deputy Director	Dr. Danglam

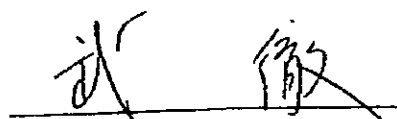
MINUTES OF DISCUSSIONS
THE STUDY ON THE PROJECT FOR GRANT AID FOR CHILD HEALTH
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC

In response to the request from the Government of Lao People's Democratic Republic (hereinafter referred to as "Lao P.D.R."), the Government of Japan decided to conduct a Study on the Project for Grant Aid for Child Health in Lao P.D.R. (hereinafter referred to as the "Project") and entrusted the study to Japan International Cooperation Agency (JICA).

JICA sent the Study Team (hereinafter referred to as "the Team"), headed by Mr. Toru TAKE, Deputy Director, First Grant Aid Project Management Division, Grant Aid Project Management Department, JICA to Lao P.D.R. from December 8 to 13, 1997.

The Team had a series of discussions with the officials concerned of the Government of Lao P.D.R. and conducted a field survey.

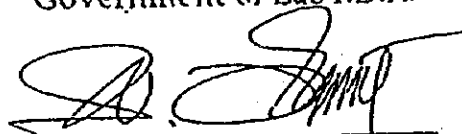
As a result of discussions between both sides and the joint field survey, the Team has confirmed that it will convey the requested main items as attached for consideration by the Government of Japan.



Mr. Toru TAKE
Leader,
Study Team,
JICA



DESAI BOUTTA
Deputy Director of Cabinet
Ministry of Health
Government of Lao P.D.R.



Dr. Philaysak NAPHAYVONG
Deputy Director
Institute of Malariology,
Parasitology and Entomology

ATTACHMENT

1. Objective

The objective of the Project is to improve the quality of life through the reduction of malaria morbidity and mortality in the designated provinces, particularly among children, through the provision of necessary equipment and materials.

2. Project Sites

Project sites are the following three provinces (name of district);

1. Vientiane province (Kasi, Vangvieng, Feuang, Sanakham)
2. Borikhamsay (Thaphabat, Pakkading, Borikhan, Khamkeuth, Viengthong)
3. Khammouane (Mahasay, Nongbok, Hinboun, Gnommalath, Bualapha, Nakay, Sebangfay, Saybuathong)

3. Responsible and Executing Agency

Responsible Agency: Ministry of Health

Executing Agency : Institute of Malariology, Parasitology and Entomology (IMPE) and Provincial Health Offices (Provincial Anti-Malaria Stations) in the above provinces

4. Items Requested by the Government of Lao P.D.R.

(1) After discussions with the Team, the Government of Lao P.D.R. made a final request to the Government of Japan to consider providing the items described in Annex 1 as part of the Project.

However, items to be included in the Project will be decided after further study in Japan.

(2) The Government of Lao P.D.R. assigned in Annex 1 their own Priorities on the equipment.

Note: A = 1st Priority / Essential B = 2nd Priority / Necessary
C = 3rd Priority / Desirable

5. Japan's Grant Aid System

(1) The Government of Lao P.D.R. has understood the system of Japan's Grant Aid on Annex 2 as explained by the Team.

(2) The Government of Lao P.D.R. will take necessary measures, as described in Annex 3 for the smooth implementation of the Project on the condition that the Grant Aid is extended to the Project by the Government of Japan.

6. Schedule of the Study

JICA will prepare a study report on the Project and send it to the Government of Lao P.D.R. around April 1998.

7. Other relevant issues

(1) The Government of Lao P.D.R. will allocate the necessary budget and personnel for the delivery of the items procured in the Project and training for the targeted

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villagers and the staff of Malaria Station at the targeted Provinces and Districts.

- (2) The Government of Lao P.D.R. will deliver the items procured under the Project to the targeted villages according the schedule shown in Annex 4.
- (3) If the goods procured under the Project are sold to the beneficiaries in the targeted villages, the sale proceeds should be deposited and utilized for the purpose of malaria control activities by the Ministry of Health.
- (4) The Government of Lao P.D.R. will periodically monitor and evaluate the malaria control activities and the effect of the Project on the reduction of malaria incidence. The results of monitoring and evaluation should be reported biannually to the JICA Office in Vientiane.

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Requested Item

LAO P.D.R.

No	Name of Item	Specification	Q'ty	Pr.
1	Bednet	size 190(W)*180(L)*150(H), Knitted 100% polyester(multi-filament fiber)	20,000	A
2	Isecticide Incorporated Bednet	size 190(W)*180(L)*150(H)	20,000	A
3	Deltamethrine	1% Soluton Concentration	5,000 liter	A
4	Community based diagnosis tools	a)Dipstick for P.Falciparum b)Dipstick for P.Vivax	60,000 60,000	A
5	Anti-malaria drug for radical treatment for all cases and chemoprophylaxis in pregnant women	(1pack=1,000 tablets) a)Chloroquine 250mg b)Quinine 250mg c)Fansidar 525mg	2,500 1,000 1,000	A B B
6	Gimsa Stock Solution	500ml/bottle	500	A
7	Metanol	1 l/bottle	200	A
8	Xylene	500ml/bottle	200	A
9	Microscope	with illuminator	16	A
10	Cabinet for Microscope	a) with electricity b) without electricity (include silicagel)	9 5	A A
11	Immersion Oil	50ml/bottle	600	A
12	Lens Cleaning kit		26	A
13	Slide Glass	76*26*0.4mm(100slides/ pack)	3,000	A
14	Lancet	200 pcs/pack	2,500	A
15	Video Cassete	Blank/ for 120 min	100	A
16	Portable Generator	for TV and Video Player	20	A
17	Video Cassette Player		20	A
18	14 inch TV		17	A
19	20 inch TV		3	A
20	Desk-top Computer with Printer		5	B
21	Rap-top Computer with Printer		2	C
22	Facsimile Machine		1	B
23	Photocopy Machine		1	B
24	4WD Double cabin Truck		7	A
25	4WD Vehicle		1	C
26	Mortercycle	Off-road type	17	B
27	Helmet	Safe Helmet type	17	B

JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

- (1) The Japan's Grant Aid Program is executed by the following procedures.
- Application (Request made by a recipient country)
 - Study (Preliminary Study / Basic Design Study conducted by JICA)
 - Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
 - Determination of Implementation (Exchange of Notes between the both Governments)
 - Implementation (Implementation of the Project)
- (2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grand Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises the Project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study Report prepared by JICA and the results are then submitted to the Cabinet for approval.

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Contents of the Study

(1) Contents of the Study

The purpose of the Study (Preliminary Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the

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Study are as follows:

- a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) to confirm items agreed on by the both parties concerning a basic concept of the project,
- d) to prepare a basic design of the project,
- e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request. Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

(2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is (are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid possible undue delay in implementation caused if a new selection process is repeated.

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and

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social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

(2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

(3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

(4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

(5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

- a) to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- c) to secure buildings prior to the installation work in case the Project is providing equipment,

- d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) Proper Use

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

(8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(9) Banking Arrangement (B/A)


- a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

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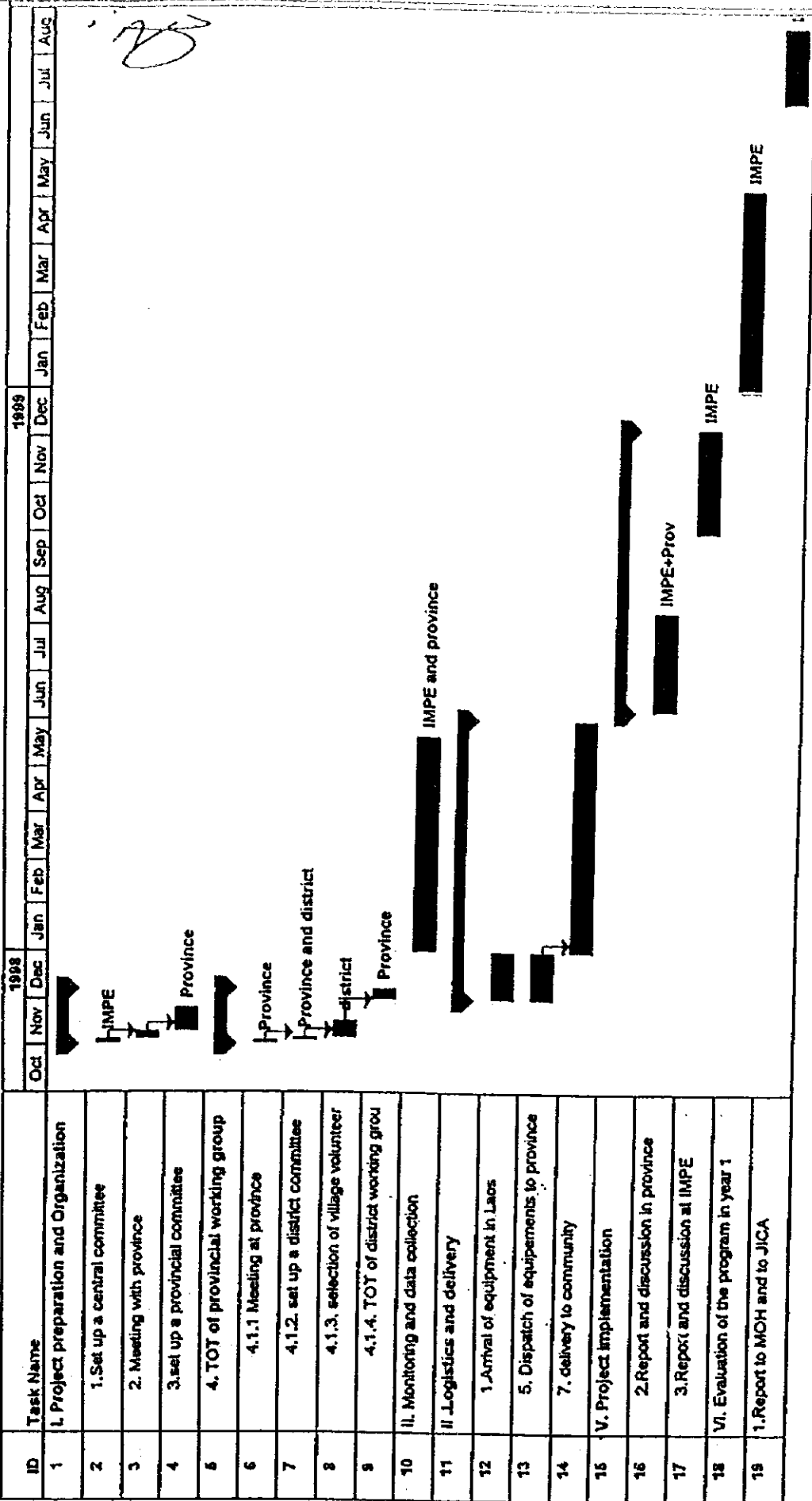
Necessary Measures to be taken by the Government of Lao P.D.R.

Following necessary measures should be taken by the Government of Lao P.D.R. on condition that the Grant Aid by the Government of Japan is extended to the Project:

1. To provide data and information necessary for the Project;
2. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission;
3. To ensure prompt unloading, tax exemption, customs clearance before entering in Lao P.D.R. and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant Aid;
4. To exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in Lao P.D.R with respect to the supply of the products and services under the verified contracts;
5. To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into Lao P.D.R. and stay therein for the performance of their work;
6. To provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary;
7. To assign appropriate budget and staff for proper and effective use of equipment and instruments provided under the Grant Aid;
8. To maintain and use properly and effectively the equipment and instruments provided under the Project; and
9. To bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.

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Tentative schedule of the implementation and delivery of the Project for year 1



Project: Project1	Task	Summary	Rolled Up Progress
Date: Fri 12/12/97	Progress	Rolled Up Task	
	Milestone	Rolled Up Milestone	

to

17/10

Tentative schedule of the implementation and delivery of the Project for year 2

ID	Task Name	1999												2000											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	II. Monitoring and data collection																								
2	TOT at IMPE																								
3	TOT at province																								
4	delivery to community																								
5	V. Project implementation																								
6	2. Report and discussion in province																								
7	3. Report and discussion at IMPE																								
8	VI. Evaluation of the program in year 1																								
9	1. Report to MOH and to JICA																								

IMPE and province

IMPE+Prov

IMPE

IMPE

Project: Project1	Task	Summary	Rolled Up Progress
Date: Fri 12/12/97	Progress	Rolled Up Task	Rolled Up Milestone
	Milestone		

Schedule of distribution

VIENTIANE

Name of Province	Name of District	Kind of Budget	Zone	Marty season			Dry season			Rainy			Dry season			Total														
				1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24		
				There is no schedule to distribute because of rainy season													There is no schedule to distribute because of rainy season			There is no schedule to distribute because of rainy season										
VIENTIANE	Kuan	Regular Budget	0 n 2	Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660
		Vehicle		Amount of budget	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5
		Instruction tour		Amount of budget	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655
		TOTAL		Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660
	Vangvieng	Regular Budget	0 n 2	Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660
		Vehicle		Amount of budget	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5
		Instruction tour		Amount of budget	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655
		TOTAL		Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660
	Foung	Regular Budget	0 n 2	Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660
		Vehicle		Amount of budget	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5
		Instruction tour		Amount of budget	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655
		TOTAL		Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660
Sanchanh	Regular Budget	0 n 2	Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	
	Vehicle		Amount of budget	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	
	Instruction tour		Amount of budget	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	
	TOTAL		Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	
Total	Regular Budget		Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	
	Vehicle		Amount of budget	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	
	Instruction tour		Amount of budget	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	1,375	655	
	TOTAL		Amount of budget	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	1,390	660	

PRECONDITION:
 1) To make plan that average of household estimated in household per one village at zone 0 to 2
 2) To make a plan that the days of distribution used by vehicle estimated 2 days per 2 village at zone 0 to 2
 3) To make a plan that average of household estimated per one village at zone 2
 4) To make a plan that the days of distribution used by vehicle estimated 3 days per 3 village at zone 3
 5) To make a plan to distribute budget, educational equipment with provided such districts are linking with budget, and the implementing educational activities are done by these equipment at the each one
 6) TOT (Training of Trainers) will be done in staff of Anti-Malaria Nuclear of District during rainy season.
 7) After the distribution of budget, the instruction tour and instruction activities will be done periodically used by motorcycle which provided each districts.

KHAMMUANE

Name of Province	Name of District	Name of Suburb	Zone	Kind of Bednet	Month												Total											
					1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23
KHAMMUANE Province	Mahaewi	Regular Bednet	0 to 2	Period																								
				Amount of bednet																								
		Bednet impregnated with insecticide	3	Period																								
				Amount of bednet																								
		Instruction tour		Period																								
				Amount of bednet																								
	Stungbok	Regular Bednet	0 to 2	Period																								
				Amount of bednet																								
		Bednet impregnated with insecticide	3	Period																								
				Amount of bednet																								
		Instruction tour		Period																								
				Amount of bednet																								
Phnom Penh	Regular Bednet	0 to 2	Period																									
			Amount of bednet																									
	Bednet impregnated with insecticide	3	Period																									
			Amount of bednet																									
	Instruction tour		Period																									
			Amount of bednet																									
Gninnimant	Regular Bednet	0 to 2	Period																									
			Amount of bednet																									
	Bednet impregnated with insecticide	3	Period																									
			Amount of bednet																									
	Instruction tour		Period																									
			Amount of bednet																									

- PRECONDITION:
- 1) To make plan that average of household estimated of household per one village at zone 0 to 2
 - 2) To make plan that the days of distribution used by vehicle estimated 3 days per 3 village at zone 0 to 2
 - 3) To make a plan that average of household estimated 40 household per one village at zone 3
 - 4) To make a plan that the days of distribution used by vehicle estimated 5 days per 3 village at zone 3
 - 5) On the occasion to distribute bednet, educational equipment which purchased with district are bringing with bednet, and the enlightening, educational activities are done by these equipment at the each site.
 - 6) TOT (Training of Trainers) will be done to staff of Aek Malaria Nucleus of District during rainy season.
 - 7) After the distribution of bednet, the instruction tours and manufacturing activities will be done periodically used by motorcycle which provided each districts.

JICA

