Chapter 4 Works Plans

4.1 Execution Plan

4.1.1 Equipment Procurement Plan

The Project will move to the implementation stage following cabinet decision by the Government of Japan and after the exchange of notes between Japan and the three countries concerned. Implementation normally involves the stages of detailed design, preparation of tender documents, selection of contractors and execution.

However, because the provision of equipment under the Project is conditional upon it being used from this year's NID, it is considered that it will be difficult to complete the Project through the normal implementation process, as can be gathered from the implementation schedules shown later. For this reason, it will be necessary to omit the deciding of contractor through tender and to shorten the implementation period by concluding optional contracts with UNICEF. In the three countries concerned, the standardization of equipment to UNICEF recommended models and the execution of multi-bi assistance are already being performed and such methods are considered to be effective for the Project too. Moreover, optional contracts with UNICEF shall be concluded in both the case of cold storage equipment and vehicular equipment.

It is considered that the countries of equipment procurement will be classified as follows:

Third country procurement: cold storage equipment etc.
Procurement in Japan: vehicular equipment etc.

4.1.2 Implementation Schedule

Due to the fact that detailed design and contractor selection will be simplified, it will be possible to commence the Project works from the final stages on the implementation schedule of implementation and procurement. The delivery of equipment will require at least three or four months from the placement of orders in both the case of procurement from third countries and procurement from Japan. The time required for marine transportation to each of the three countries will be approximately one month. As the Project sites are located all over the countries concerned, considerable time will be required for the distribution, installation and preparation of the equipment. Between 1.5 and two months should be scheduled for this in Vietnam and two or three months should be scheduled in the case of both Laos and Cambodia.

The following implementation schedules each target the NID in the countries concerned. In each schedule, it is assumed that the E/N will be signed in May and that the necessary orders will be placed at the start of June.

1) Implementation Schedule in Vietnam

Process	Period (days)	1995 May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
E/N Signing	7								
Equipment Ordering	7								
Manufacturing	95								
Shipment/ Transportation	30								
Distribution	20								
Preparation of Installation	10								
NID	37								

Note) The first NID are scheduled for November 11 through 13, 1995 and the second NID are scheduled for December 16 through 18, 1995.
Careful coordination will be necessary as only 95 days have been allowed for manufacture and 30 days for domestic distribution and preparation.

2) Implementation Schedule in Laos

Process	Period (days)	1995 May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.
E/N Signing	7										
Equipment Ordering	7										
Manufacturing	120										
Shipment/ Transportation	30										
Distribution	60										
Preparation of Installation	10										
NID	35										

Note) The first NID are scheduled for the middle of January 1996 and the second NID are scheduled for the middle of February 1996.

3) Implementation Schedule in Cambodia

Process	Period (days)	1995 May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
E/N Signing	7											
Equipment Ordering	7											
Manufacturing	120											
Shipment/ Transportation	30											
Distribution	80											
Preparation of Installation	18											
NID	29											

Note) The first NID are scheduled for the middle of February 1996 and the second NID are scheduled for the middle of March 1996.

Chapter 5 Project Evaluation and Recommendations

5.1 Beneficial Effects

In the case where the Project is implemented and the equipment is properly utilized at each of the cold chain facilities concerned, the following effects can be anticipated.

1) Vietnam

Current Situation and Problem Areas	Project Countermeasures	Project Effects
With domestic production of polio vaccine increasing, new storage areas are required.	Installation of new walk-in freezer rooms.	Because the domestic procurement and storage of all necessary vaccines will eventually become possible, it will be possible to control production levels in line with demand.
Proper vaccine management is difficult at some of the country's 600 or more main facilities due to deteriorated and insufficient cold storage equipment.	Provision of new freezers (50) and refrigerators (150).	Through equipment new installation and renewal, vaccine management safety levels will rise. Moreover, lighter staff burdens can be anticipated.
There are only two freezer trucks in the whole country and this is hindering vaccine transportation from the central level to the provinces. In particular, it is necessary to transport vaccines to many areas in a short time for the NID and the absolute number of freezer trucks is insufficient to cope.	Provision of one freezer truck to each of the four regions.	The sharing of transportation between the regions will reduce transportation times and work loads.
In those provinces not possessing vehicles, vaccine transportation between the superior institutes and subordinate district centers and also coordinated surveillance etc. is difficult.	Station wagons shall be provided to the 24 provinces currently not possessing vehicles.	By deploying at least one vehicle for exclusive EPI use to each province, a setup whereby the EPI activities can be performed rapidly over wide areas will be prepared.

2) Laos

Current Situation and Problem Areas	Project Countermeasures	Project Effects
Proper vaccine management is difficult at some of the country's 150 or more main facilities due to deteriorated and insufficient cold storage equipment.	Provision of new freezers (45) and refrigerators (48).	Through equipment new installation and renewal, vaccine management safety levels will rise. Moreover, lighter staff burdens can be anticipated.
In those provinces not possessing vehicles, vaccine transportation between the superior institutes and subordinate district centers and also coordinated surveillance etc. is difficult.	Trucks shall be provided to the 17 provinces (districts) currently not possessing vehicles.	By deploying at least one vehicle for exclusive EPI use to each province, a setup whereby the EPI activities can be performed rapidly over wide areas will be prepared.
In the district areas especially, poor road conditions mean that it is difficult to secure good means of transportation.	80 motor cycles shall be deployed mainly to the district centers.	Mobility will increase and thus lead to shorter patrol times and lighter work burdens.

3) Cambodia

Current Situation and Problem Areas	Project Countermeasures	Project Effects
Proper vaccine management is difficult at some of the country's 200 or more main facilities due to deteriorated and insufficient cold storage equipment.	Provision of new refrigerators (110). Cold box Vaccine carrier Sterilizer	Through equipment new installation and renewal, vaccine management safety levels will rise. Moreover, lighter staff burdens can be anticipated.
In those provinces not possessing vehicles, vaccine transportation between the superior institutes and subordinate district centers and also coordinated surveillance etc. is difficult.	13 trucks shall be provided to the 13 provinces (districts) and central agencies currently not possessing vehicles.	By deploying at least one vehicle for exclusive EPI use to each province, a setup whereby the EPI activities can be performed rapidly over wide areas will be prepared.
In the district areas especially, poor road conditions mean that it is difficult to secure good means of transportation.	100 motor cycles shall be deployed mainly to the district centers. Cold box Vaccine carrier Sterilizer	Mobility will increase and thus lead to shorter patrol times and lighter work burdens.

5.2 Verification of Appropriateness

It is now 10 years since the EPI activities were started in earnest in the three countries of Indochina, and in this period the environment surrounding the EPI activities in each country has dramatically improved thanks to assistance received from international agencies and foreign countries. Japan, too, has continued to mainly provide vaccines as one part of its technical assistance and this has given rise to great beneficial effects until now. However, there are still many unsolved problem areas in each country which arise from geographical, economic and social factors etc. and these are proving to be a great hindrance to advancement of the EPI activities. In particular, the problem of vaccine transportation due to the poor state of roads and the underdevelopment of the other infrastructure is very serious in view of the fact that infrastructure improvements cannot be expected in the short term. Maintenance of the cold chain setup is indispensable to the safe haulage of vaccines to the bottom end of the chain, however, the slow development of the setup has given rise to concerns over the maintenance of the medicinal effectiveness of the vaccines and also infections etc. arising among people who receive vaccinations.

For these reasons, the staff and volunteers concerned with the EPI activities are having to make great sacrifices in the course of their work. The use of private motorbikes due to the absence of vehicles and the low levels or even non-payment of staff salaries etc. are all factors leading to a serious decline in staff morale.

Moreover, the fact that the EPI activities need to be conducted every year on a national scale means that the necessary setup has to be maintained and bolstered continuously and on a national scale too. This is proving to be a big financial burden for each of the countries which are already confronted with tight financial conditions.

Under these circumstances, the large-scale improvement of transportation vehicles and cold storage equipment under the Project will ensure the rapid transportation and proper management of vaccines, and thus lead to accelerated promotion of the EPI activities in the three countries concerned. Furthermore, vaccination activities are an ongoing thing and, even after the end of the NID in 1997, the equipment provided under the Project will continue to be utilized for the same purposes.

As was mentioned previously, the Field Study resulted in confirmation of the performance of the EPI agencies and activities, the current conditions of the cold chain setup from the central level to the provincial level and from the provincial level to the district level, and also the activities of the exclusive EPI staff etc. in the three countries. The direct effects of Project implementation will be the stable supply of vaccines and improvement of the cold chain setup, however, great beneficial effects will also be seen in the reduction of infections and also the improvement in the health of all women and children, who are the subjects of the

vaccinations. Moreover, Project implementation will also lead to reduced work loads for the staff who support the EPI activities and, all in all, it can be said that the expected Project effects comply with the requirements of the grant aid system. It is therefore judged that implementation of the Project through grant aid from the Government of Japan is appropriate.

5.3 Links with other Technical Assistance Donors

As EPI activities in the three countries of Indochina have not been conducted in earnest for very long, the EPI setup in each country cannot be described as sufficient. As is pointed out in this Report, there are various problems ranging from insufficient government budgets to equipment and specialist staff shortages etc. In view of this situation, Japan has continued to dispatch specialists and provide vaccines, and these activities have proved to be most beneficial. If these activities are continued in the future and, at the same time, if the vaccine acceptance setups in each of the countries are improved through Project implementation, it is thought that a synergistic effect can be anticipated. The lack of syringes, which are the most basic vaccination equipment items, at the bottom end of the cold chain is a problem faced by each of the countries, and measures to ensure the stable supply of such items need to be taken immediately.

As for the question of links with other donors, cooperation with UNICEF will be particularly required in the case where the Project is implemented. Regarding the equipment to be provided under the Project, it is desirable that reports are given to UNICEF every year on the conditions of equipment use and the state of required spare parts, and that the said agency conducts monitoring to ensure the long-term and effective utilization of the equipment.

5.4 Recommendations

As was mentioned earlier, the Project can be expected to give rise to massive beneficial effects and also contribute to improved health levels among women and children in the countries concerned. It is therefore judged that implementation of the Project is a matter of great significance. However, a number of problems confront Project implementation and it will be necessary to take the following measures to ensure that the Project is executed and managed in a smooth fashion.

1) Vietnam

a) Project implementation is conditional upon the provided equipment being used from this year's NID and the implementation schedule is thus very tight. It is therefore necessary to take steps to ensure that the equipment can be immediately distributed internally following its arrival at the designated port.

b) The poor electricity supply situation means that voltage stabilizers will be essential for all electrical equipment, however, it will be necessary for the Vietnam side to procure these and put them to use simultaneously with the installation of the Project equipment.

2) Laos

a) Project implementation is conditional upon the provided equipment being used from this year's NID and, because it is considered that internal transportation will require a number of days, it is necessary to take steps to ensure that the equipment can be immediately distributed internally following its passage through customs.

b) Regarding the refrigerators and freezers that use kerosene, it will be necessary for the Laos side to procure the required special kerosene and to regularly maintain the kerosene supply following installation of the Project equipment.

c) Regarding the spare tires for general vehicles and motor cycles, proper storage and management on the central level or at the distribution destinations will be necessary.

3) Cambodia

a) Project implementation is conditional upon the provided equipment being used from this year's NID and, because it is considered that internal transportation will require a number of days, it is necessary to take steps to ensure that the equipment can be immediately distributed internally following its arrival at the designated port.

b) Regarding the refrigerators and freezers that use kerosene, an initial six-month supply will also be provided with the equipment, however, following that it will be necessary for the Cambodia side to regularly procure and maintain the kerosene supply.

c) Regarding the replacement parts for refrigerators and spare tires for the vehicles, proper storage and management on the central level or at the distribution destinations will be necessary.