ANNEX 1 MINUTES OF MEETINGS

1. SCOPE OF WORK FOR THE STUDY ON VIENTIANE WATER SUPPLY DEVELOPMENT PROJECT, Vientiane, 16 October 2002

SCOPE OF WORK

FOR

THE STUDY ON VIENTIANE WATER SUPPLY DEVELOPMENT PROJECT AGREED UPON BETWEEN

MINISTRY OF COMMUNICATION, TRANSPORT, POST AND CONSTRUCTION (WATER SUPPLY AUTHORITY)

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Vientiane, 16 October 2002

Dr. Somphone Dethoudom

Director General of WASA

Ministry of Communication,

Transport, Post and Construction

Lao PDR

Mr. Hidetaka Nishiwaki

Resident Representative,

ЛСА Laos Office

Dr. Thongdam Xayphrakassa

Director General,

Department of Communication,

Transport, Post and Construction (DCTPC)

Vientiane Prefecture, Lao PDR

I. INTRODUCTION

In response to the request of the Government of Lao People's Democratic Republic (hereinafter referred to as "the Government of Lao PDR"), the Government of Japan decided to conduct the Study on Vientiane Water Supply Development Project in Lao PDR (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Lao PDR.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

- 1. to review the master plan of water supply development of Vientiane Municipality for the target year 2020;
- 2. to conduct a feasibility study on priority project(s) identified in the revised master plan; and
- 3. to pursue technology transfer to the counterpart personnel in the course of the Study.

III. STUDY AREA

The Study would cover the present and planned service areas of the "Master Plan: Vientiane Water Supply Development Project" November 1999 (Refer to Appendix 1).

IV. SCOPE OF THE STUDY

Phase I: Basic Study

- 1. Collection and analysis of the existing data and information related to the Study;
- 2. Field reconnaissance and survey:
 - (1) Existing water supply facilities,
 - (2) Current conditions of unaccounted-for water, and
 - (3) Water sources;

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- 3. Water quality analysis;
- 4. Survey on willingness and affordability to pay for water supply service;
- 5. Review and analysis of the on-going plans and projects related to the Study;
- 6. Institutional and management capacity assessment of Nam Papa Vientiane; and
- 7. Evaluation of present water supply conditions and identification of problems.

Phase II: Review of the Master Plan

- 1. Water demand forecast and formulation of planning framework;
- 2. Establishment of basic development policies, goals and strategies;
- 3. Comparative study on technical alternatives of water supply schemes;
- 4. Schematic lay-out plan of the facilities;
- 5. Action plan for unaccounted-for water reduction;
- 6. Plan for strengthening institutional and management capacity of Nam Papa Vientiane;
- 7. Preliminary cost estimation;
- 8. Phasing implementation plan;
- 9. Initial environmental examination (IEE); and
- 10. Evaluation of the revised mater plan and selection of priority project(s).

Phase III: Feasibility Study on the Priority Project(s)

- 1. Supplemental data collection and analysis;
- 2. Topographic survey and geological survey;
- 3. Water quality analysis;
- 4. Preliminary design of the facilities;
- 5. Operation and maintenance plan;
- 6. Management and human resources development plan;
- 7. Cost estimation and financial analysis;
- 8. Environmental impact assessment (EIA);
- 9. Project evaluation:
 - (1) Economic and financial evaluation,
 - (2) Social and environmental evaluation, and
 - (3) Technical evaluation;
- 10. Formulation of implementation schedule.

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V. SCHEDULE OF THE STUDY

The Study will be carried out in accordance with the tentative schedule shown in the attached sheet of Appendix 2.

VI. REPORT

JICA shall prepare and submit the following reports in English to the Government of Lao PDR.

- Inception Report: Twenty (20) copies at the commencement of the Study in Lao PDR
- 2. Progress Report: Twenty (20) copies at the end of Phase I
- Interim Report: Twenty (20) copies at the end of Phase II
- Draft Final Report:
 Twenty (20) copies at the end of the Study
 The Government of Lao PDR shall submit their comments within one (1) month after the receipt of the Draft Final Report
- Final Report:
 Thirty (30) copies within one (1) month after the receipt of the comments on the Draft Final Report

VII. UNDERTAKING OF THE GOVERNMENT OF LAO PDR

- 1. To facilitate the smooth conduct of the Study, the Government of Lao PDR shall take necessary measures:
 - (1) to secure the safety of the Japanese Study Team;
 - (2) to permit the members of the Japanese Study Team to enter, leave and sojourn in Lao PDR for the duration of their assignment therein and exempt them from alien registration requirements and consular fees;
 - (3) to exempt the members of the Japanese Study Team from taxes, duties and other charges on equipment machinery and other materials brought into Lao PDR for the conduct of the Study;
 - (4) to exempt the members of the Japanese Study Team from income tax and charges of any kind, imposed on or in connection with any emoluments of allowance paid

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to the members of the Japanese Study Team for their services in connection with the implementation of the Study;

- (5) to provide necessary facilities to the Japanese Study Team for remittance as well as utilization of the funds introduced into Lao PDR from Japan in connection with the implementation of the Study;
- (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study;
- (7) to secure permission for the Japanese Study Team to take all data and documents (including photographs) related to the Study out of Lao PDR to Japan; and
- (8) to provide medical services as needed. Its expenses will be chargeable to members of the Japanese Study Team.
- 2. The Government of Lao PDR shall bear claims, if any arise against members of the Japanese Study Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from grass negligence or willful mis-conduct on the part of the member(s) of the Japanese Study Team.
- 3. Water Supply Authority (hereinafter referred to as "WASA"), Ministry of Communication, Transport, Post and Construction (hereinafter referred to as "MCTPC") shall be the executing agency and coordinating body in relations with other governmental and non-governmental organizations for smooth implementation of the Study. Department of Communication, Transport, Post and Construction (hereinafter referred to as DCTPC) through State-owned Enterprise Nam Papa Vientiane shall be the implementing agency.
- 4. WASA shall at its own expense, provide the Japanese Study Team with the following, in cooperation with other organizations concerned:
 - (1) available data and information related to the Study,
 - (2) counterpart personnel,
 - (3) suitable office spaces with necessary equipment in Nam Papa Vientiane, and
 - (5) credentials or identification cards.

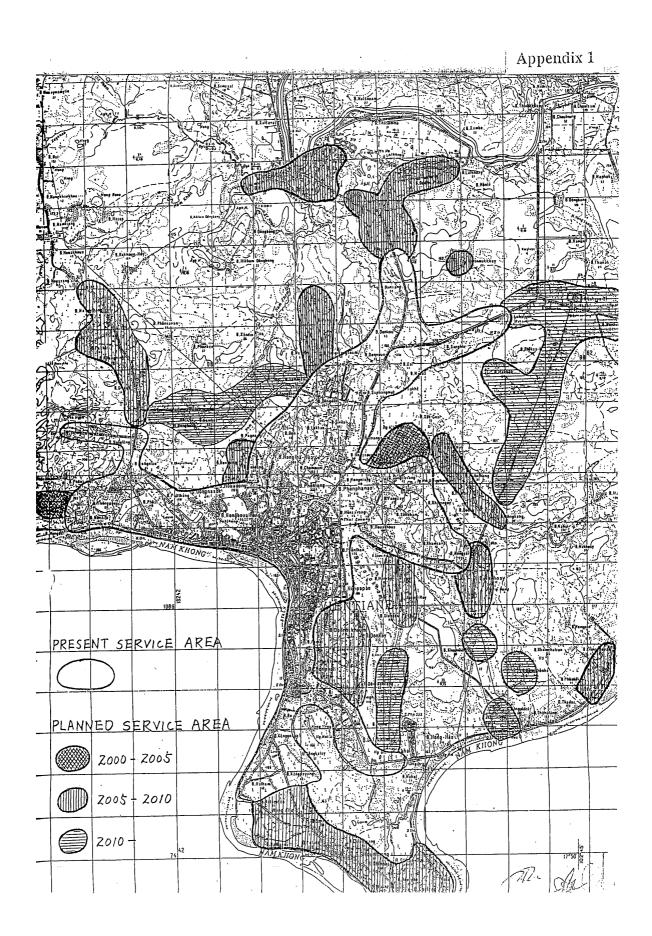
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VIII. CONSULTATION

JICA and WASA shall consult with each other in respect of any matter that may arise from or in connection with the Study.

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Appendix 2

TENTATIVE STUDY SCHEDULE

Month		•	2	S.	4	5	9	/	∞	9 10		12 1	13	13 14
Schedule					4						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Report	·	4		4		4				4		•		
•		IC/R		P/R		\equiv	∝		•	DF/R	\approx	F/R	24	

IC/R: Inception Report
P/R: Progress Report
IT/R: Interim Report
DF/R: Draft Final Report
F/R: Final Report

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2. MINUTES OF MEETING ON SCOPE OF WORK FOR THE STUDY ON VIENTIANE WATER SUPPLY DEVELOPMENT PROJECT, 16 October 2002

MINUTES OF MEETING ON

SCOPE OF WORK

FOR

THE STUDY ON VIENTIANE WATER SUPPLY DEVELOPMENT PROJECT AGREED UPON BETWEEN

MINISTRY OF COMMUNICATION, TRANSPORT, POST AND CONSTRUCTION (WATER SUPPLY AUTHORITY)

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Vientiane, 16 October 2002

Dr. Somphone Dethoudom

Director General of WASA

Ministry of Communication,

Transport, Post and Construction

Lao PDR

Mr. Hidetaka Nishiwaki

Resident Representative,

ЛСА Laos Office

Dr. Thongdam Xayphrakassa

Director General,

Department of Communication,

Transport, Post and Construction (DCTPC)

Vientiane Prefecture, Lao PDR

In response to the official request of the Government of Lao People's Democratic Republic (hereinafter referred to as "Lao PDR"), the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Study Team (hereinafter referred to as "the Team"), headed by Mr. KIMURA Senichi, to Lao PDR from August 21st to August 27th, 2002 to discuss the Scope of Work (hereinafter referred to as "S/W") for the Study on Vientiane Water Supply Development Project in Lao PDR (hereinafter referred to as "the Study").

During its stay in Lao PDR, the Team carried out field surveys in the study area, and held a series of discussions with Department of Housing and Urban Planning (hereinafter referred to as "DHUP") and Water Supply Authority (hereinafter referred to as "WASA"), Ministry of Communication, Transport, Post and Construction (hereinafter referred to as "MCTPC"); Department of Communication, Transport, Post and Construction (hereinafter referred to as "DCTPC") to Vientiane Prefecture; NAM PAPA Vientiane (hereinafter referred to as "NPV"), and other authorities also concerned with the Study. The list of those who attended the series of meeting on from August 21st to and 27th, 2002 is shown in Appendix

For the better understandings the Minutes of Meeting summarizes the result of discussions and agreements between the Team and Lao side as follows.

1. Title of the Study

Both the Lao side and the Team agreed the title of the Study as "the Study on the Vientiane Water Supply Development Project in Lao PDR".

2. Target year

With due consideration to a time horizon employed for the current national development plans, both sides agreed to conduct water demand forecast of the long-term planning up to 2020. However, the Team proposed that facility planning be drawn on time horizon up to 2015, which would allow 13 years to span. From lessons learnt in ASEAN countries, the Team explained that rapid population growth would cause high demand for economic and social infrastructure and eventual review/ revision of master plans with about 10 years time span. The Lao side agreed that such components as facility planning and capital disbursement schedule would be prepared up to 2015.

3. Demarcation with AFD study

The Japanese side understood that the Lao side was considering conducting a study on Vientiane water supply under French technical assistance. To avoid duplication of the studies, the Japanese side proposed the following demarcation, and the Lao side agreed on it.

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JICA study will cover review of the "Master Plan: of Vientiane Water Supply Development Project" November 1999. JICA will also conduct feasibility studies on such components as surface water abstraction, treatment, and clear water transmission up to storage facilities, and organization management of Nam Papa Vientiane.

On the other hand, AFD will carry out a study on improvement of distribution pipeline networks on the basis of conclusion of review of the Master Plan to be conducted by JICA.

This demarcation with AFD study is clearly shown in appendix 1.

4. Counterpart personnel

Both sides emphasized the importance of technology transfer through on-the-job training in the Study for capacity building and human resource development for Lao side.

5. Counterpart training in Japan

Lao side requested a training of Lao counterpart(s) in Japan. The Team agreed to convey this request to IICA H.Q.

6. Coordination Meeting

Both sides agreed that regular coordination meeting should be held among the stakeholders, such as DHUP, WASA, DCTPC, NPV, IICA Study Team, AFD Consultants Team, AFD Representative, and IICA Representative during the Study.

7. Transportation

The Lao side requested the Team to provide transportation costs (vehicles) for the conduct of the Study at IICA own expense. The Team agreed to convey this request to IICA H.Q. for the positive consideration.

8. Workshop/Seminar

Both sides agreed to hold the workshop(s) and seminar(s) in the Study for the purpose of better understandings of the Study and technology transfer. The Lao side requested the Team to cover some costs for the workshop(s) and seminar(s). The Team agreed to convey this request to JICA H.Q..

9. Reports

The Lao side requested to attach the brief summary in Lao to the Final Summary Report. The Team agreed to convey this request to JICA H.Q. for the positive consideration. Both sides agreed that English version shall prevail in the case of arising any doubt.

10. Others

Both sides agreed that the results of the Study would be opened to the public, in principle, in order to achieve maximum use of the Study results.

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Appendix 1
DEMARCATION FOR VIENTIANE WATER SUPPLY DEVELOPMENT PROJECT

	JICA Study	AFD Study	Expected Time Table
	0. To mobilize and prepare for the	respective study schedule	from December 2002 /January 2003
Phase I Basic Study	To conduct base line studies on water demand survey etc.		· · · · · · · · · · · · · · · · · · ·
Phase II	2. To review the existing master		
Master Plan Study	Japanese expert in Nam Papa		
	Lao (Vientiane) regarding water supply development for		
	the target year of 2020. 3. To revise the master plan for water supply development		
·	(referred to as "Revised Master Plan") in the study area		to the end of February
	(referred to as "Vientiane Prefecture")		/March 2003 (tentative)
-	: :	To refer the <u>Revised Master</u> <u>Plan</u> reviewed and formulated	
	4. To set up the objectives and to	by the Japanese study team 2. To set up the objectives and to	
	identify priority project(s) for the Feasibility study especially	identify priority project(s) for the Feasibility study especially	
	focused on <u>water production</u> and transmission pipeline	focused on <u>distribution</u> pipeline system	to March 2003 (tentative)
Phase III Feasibility Study	 To conduct a feasibility study on priority project(s) identified: Water treatment plant (Newly 	To conduct a feasibility study on priority project(s) identified: Distribution pipeline system	From May/ June 2003 to October 2003 (tentative)
	construction/ expansion/ rehabilitation. Combination of these)	*new branch pipeline and replacement/ *booster pump stations,	
	- Water transmission pipeline (from WTP to the most urgent areas)	elevated tanks etc Service connection installation (to households in the newly included/planed service area)	

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3. MINUTES OF MEETING ON THE INCEPTION REPORT, 6 March 2003

THE STUDY ON VIENTIANE WATER SUPPLY DEVELOPMENT PROJECT IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

MINUTES OF MEETING ON THE

INCEPTION REPORT

Agreed upon in Vientiane on March 6th 2003 between

Mr. Noupheuak Virabouth

Deputy Director General of WASA Ministry of Communication, Transport, Post and Construction Lao PDR

Dr. Thongdam Xayphrakassa

Director General, Department of Communication, Transport, Post and Construction (DCTPC) Vientiane Prefecture, Lao PDR Mr. Takemasa Mamiya

Team Leader JICA Study Team

Witnessed by

Mr. Yoshiki Omura

Chairman of JICA Advisory Committee Senior Advisor

Institute for International Cooperation
Japan International Cooperation Agency

MINUTES OF MEETING

The Ministry of Communication, Transport, Post and Construction, Lao PDR (hereinafter referred to as "MCTPC") through Water Supply Authority (hereinafter referred to as "WASA") and State-owned Enterprise of Nam Papa Vientiane Prefecture (hereinafter referred to as "NPV"), which is under the jurisdiction of the MCTPC, as the Counterpart Agencies for the Study on Vientiane Water Supply Development Project in Lao PDR (hereinafter referred to as "the Study"), held the Inception Meeting with the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA Advisory Committee and the JICA Study Team (hereinafter referred to as "the Japanese side"), chaired by Mr. Bounleuam Sisoulath, General Director of Department of Housing and Urban Planning (hereinafter referred to as "DHUP"), MCTPC, on March 4th 2003. The attendants of the meeting are listed in the Attachment.

JICA formed a JICA Study Team headed by Mr. Takemasa MAMIYA and comprising members from Nihon Suido Consultants Co., Ltd. to implement the Study, and a JICA Advisory Committee chaired by Mr. Yoshiki Omura, Senior Advisor, Institute for International Cooperation, JICA, to oversee the Study implementation. The Study Team has been dispatched to Vientiane to commence the Study in cooperation with WASA and NPV.

JICA Study Team presented twenty (20) copies of the Inception Report in English. During the meeting the JICA Study Team explained the main contents of the report, work plan and schedule and study outputs. Lao PDR side agreed on the contents of the Inception Report with several comments. The main comments and agreements reached during the meeting were as follows.

1. Monthly Coordination Meeting

Both sides agreed to hold a monthly coordination meeting to discuss progress and interim results of the Study and to exchange information with AFD. Participants of the meeting will be representatives from MCTPC, DHUP, WASA, DCTPC Vientiane Prefecture, NPV, JICA Laos Office, the JICA Study Team, AFD, AFD consultants, and other donors concerned. MCTPC agreed that representative of WASA will chair the meeting and will coordinate the meeting including scheduling, issuing invitation, and arranging meeting space.

2. Demarcation with AFD Study

Both sides confirmed that demarcation of the Study between JICA and AFD is as shown in Appendix 1 of the Minutes of Meeting on Scope of Work for the Study which was signed on October 16th 2002 between MCTPC and JICA Laos Office.

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3. Undertakings of Lao PDR

Lao PDR side agreed to execute undertakings of Lao PDR which are described in Chapter 7 of the Inception Report. As for the counterparts required for the execution of the Study, MCTPC and NPV agreed to provide a name list of the counterparts as soon as possible.

4. Meeting in Lao Language to Explain Report Contents

Both sides agreed to hold meetings in Lao Language to explain the contents of the Inception Report, Progress Report, Interim Report, and Draft Final Report. WASA and NPV agreed to select participants from their organization and agreed to provide an interpreter who will translate English from/to Lao Language at these meetings.

5. PCM Workshop

The JICA Study Team proposed to hold PCM Workshop upon submission of Inception, Progress, Interim, and Draft Final Reports for effective technology transfer during the entire study period. Lao PDR side agreed to hold such Workshops and to select participants from their organization including all counterparts for the Study and agreed to provide an interpreter who will translate English from/to Lao Language at these Workshops.

6. Submission of Reports

The Lao PDR side requested and the Japanese side agreed that all reports which will be prepared in the course of the Study should be submitted to the MCTPC and the MCTPC would distribute these reports to the agencies concerned.





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Attachment

List of Attendants

[Lao PDR side]

MCTPC

Department of Housing and Urban Planning

Mr. Bounleuam Sisoulath Director General

Cabinet Office

Mr. Chansy Nouanmaly Director of International Relations

Division

WASA

Mr. Noupheuak Virabouth Deputy Director General

Mr. Yasuhiro Kawashima JICA Expert

NPV

Mr. Somlith Silaphet Deputy General Manager

Vientiane Prefecture

Department of Communication, Transport, Post and Construction

Mr. Bounthong Praseutsak Deputy Director

[Japanese side]

JICA Advisory Committee

Mr. Yoshiki Omura Chairman of the Committee

Senior Advisor

Institute for International Cooperation

ЛСА

Mr. Hajime Shimazaki Member of the Committee

Deputy Manager, Engineering Division, Saitama Municipal Waterworks Bureau

JICA Tokyo Headquarters

Off.

Mr. Hiroshi Fujimoto Second Development Study Division

Social Study Development Study

in the

Department, JICA

Attachment - 1

JICA Study Team (Nihon Suido Consultants Co., Ltd.)

Mr. Takemasa Mamiya Team Leader/Water Supply Planning
Mr. Tatsuo Tashino Waterworks Management Specialist

(Economic Evaluation/Financial

Planning)

Mr. Koichi Okazaki Study Coordinator

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Attachment - 2

4. MINUTES OF MEETING ON THE MASTER PLAN, 12 June 2003

THE STUDY ON VIENTIANE WATER SUPPLY DEVELOPMENT PROJECT IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

MINUTES OF MEETING ON THE

MASTER PLAN

Agreed upon in Vientiane on June 12th 2003 between

Dr. Somphone DethoudomDirector General of WASA

Ministry of Communication, Transport, Post and Construction

Lao PDR

Mr. Takemasa Mamiya

Team Leader JICA Study Team

Witnessed by

Dr. Thongdam XayphrakassaDirector General, Department of
Communication, Transport, Post and
Construction (DCTPC)

Vientiane Prefecture, Lao PDR

Mr. Yoshiki Omura

Chairman of JICA Advisory Committee

Senior Advisor

Institute for International Cooperation Japan International Cooperation Agency

MINUTES OF MEETING

The Ministry of Communication, Transport, Post and Construction, Lao PDR (hereinafter referred to as "MCTPC") through Water Supply Authority (hereinafter referred to as "WASA") and State-owned Enterprise of Nam Papa Vientiane Prefecture (hereinafter referred to as "NPV"), which is under the jurisdiction of the MCTPC, as the Counterpart Agencies for the Study on Vientiane Water Supply Development Project in Lao PDR (hereinafter referred to as "the Study"), held the Meeting on Master Plan with the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA Advisory Committee and the JICA Study Team (hereinafter referred to as "the Japanese side"), chaired by Dr. Somphone Dethoudom, Director General of WASA, MCTPC, on June 11th 2003. The attendants of the meeting are listed in the Attachment.

JICA formed a JICA Study Team headed by Mr. Takemasa MAMIYA and comprising members from Nihon Suido Consultants Co., Ltd. to implement the Study, and a JICA Advisory Committee chaired by Mr. Yoshiki OMURA, Senior Advisor, Institute for International Cooperation, JICA, to oversee the Study implementation.

During the meeting the JICA Study Team explained the contents of the Master Plan. Lao PDR side agreed on the contents of the Master Plan with several comments as described below. The main comments and agreements reached during the meeting were as follows.

1. Selection of the Best Alternative

Both sides agreed to select Alternative K-1 which consisted of expansion of existing Kaolieo Treatment Plant by 40,000 m3/day as the 1st Stage Project and construction of new Thangone Treatment Plant of which capacity would be 60,000 m3/day as the 2nd Stage Project. The JICA Study Team explained that the scale of the 2nd Stage was rather large for international or Lao PDR's own funding even though economic and financial viability was confirmed in the Master Plan. Therefore, in order to adapt the 2nd Stage Project to appropriate capital investment scale, efforts on water conservation and reduction of unaccounted-for water were indispensable by the Lao PDR side. The Lao PDR side understood the comments from the JICA Study Team and stated that the Lao PDR side would continue the efforts.

2. **Selection of Priority Projects**

Both sides agreed to select the priority projects from the best alternative as follows:

- 1) Expansion of existing Kaolieo Treatment Plant, 40,000 m3/day
- 2) Installation of transmission pipelines of 2.2 km including improvement of booster pumping station at Km 6.
- 3) Rehabilitation of the existing Kaolieo Treatment Plant

4) Improvement of existing Chinaimo Treatment Plant to meet peak-hour water demand

The Lao PDR side pointed out that improvement of distribution system according to the expansion of Kaolieo Treatment Plant was also indispensable and the Lao PDR side requested to include some crucial distribution pipelines as the priority projects and to conduct Feasibility Study for them. Since the distribution system is included in the AFD Study demarcation, the JICA Advisory Committee will discuss with AFD and convey the comments from the Lao PDR to the JICA Tokyo Headquarters.

3. Preparation of Interim Report

Both sides agreed to prepare the Interim Report including the results of the Master Plan presented during the meeting. The JICA Study Team will submit the Interim Report to the Lao PDR side at the end of June 2003.

4. Extension of Study Period

Both sides agreed the extension of the Study period to July 2^{nd} from the original completion date of June 13^{th} , 2003 to conduct additional analysis.

5. Schedule of Forthcoming Study Work

The JICA Study Team explained that the next phase of the Study; Phase III: Feasibility Study on the Priority Projects will be commenced from next August for three and a half months.

Attachment

List of Attendants

[Lao PDR side]

MCTPC

Department of Housing and Urban Planning

Dr. Bounleuam Sisoulath

Director General

WASA

Dr. Somphone Dethoudom

Director General

Mr. Noupheuak Virabouth

Deputy Director General

Mr. Yasuhiro Kawashima

JICA Expert

NPV

Mr. Somlith Silaphet

Deputy General Manager

Mr. Saisamone Thammavongsa

Senior Engineer

Vientiane Prefecture

Department of Communication, Transport, Post and Construction

Dr. Thongdam Xayphrakassa

Director General

[Japanese side]

JICA Advisory Committee

Mr. Yoshiki Omura

Chairman of the Committee

Senior Advisor

Institute for International Cooperation

JICA

Mr. Hajime Shimazaki

Member of the Committee Planning Section Manager,

Civil Engineer,

Water Supply Department

Saitama Municipal Waterworks Bureau

JICA Tokyo Headquarters

Mr. Hiroshi Fujimoto

Second Development Study Division Social Study Development Study

Department, JICA

JICA Study Team (Nihon Suido Consultants Co., Ltd.)

Mr. Takemasa Mamiya

Mr. Eiichi Ishii

Mr. Takehiko Oga

Mr. Tatsuo Tashino

Team Leader/Water Supply Planning

Treatment Plant Planning/Designing

Pipeline Planning/Designing

Waterworks Management Specialist (Economic Evaluation/Financial

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Planning)

Attachment - 1