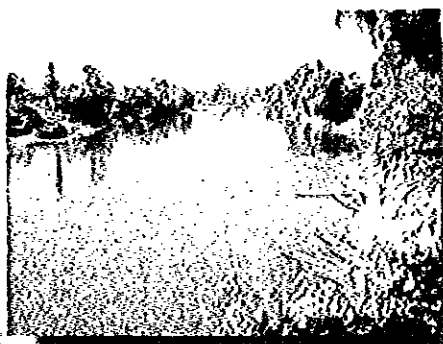


JAPAN INTERNATIONAL COOPERATION AGENCY
MINISTRY OF INDUSTRY AND HANDICRAFTS OF
THE GOVERNMENT OF LAO P.D.R.

FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC



FINAL REPORT : VOLUME 7
SUPPORTING REPORT (V)
RECORDS DURING FIELD
INVESTIGATIONS



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**FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC**

**FINAL REPORT
COMPOSITION OF REPORTS**

Volume 1	Main Report
Volume 2	Executive Summary Report
Volume 3	Supporting Report (I) : First Environmental Impact Assessment Report
Volume 4	Supporting Report (II) : Preliminary Environmental Management Plan
Volume 5	Supporting Report (III) : Preliminary Resettlement Plan
Volume 6	Supporting Report (IV) : Sub-Contractor's Field Investigation Report
Volume 7	Supporting Report (V) : Records during Field Investigations

Downstream Scenery of the Nam Ngiep River	Front Cover Photos Site Workshop under the Lao & Japanese National Flags	Vegetable Gardens along lower banks of the Nam Ngiep River
Hmong's National Costume at Site Workshop	Ceremony "Bassii" at General Workshop	Site Workshop at Thaviang Sub-district

Volume 7 : SUPPORTING REPORT (V)

RECORDS DURING FIELD INVESTIGATIONS

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1. MINUTES AND MEMORANDUM FOR FIELD
INVESTIGATIONS

1.1 MINUTES OF MEETING FOR INCEPTION REPORT

**FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC**

MINUTES OF MEETING

ON

INCEPTION REPORT

Vientiane, Lao PDR

August 17, 1998

Houmphone BULYAPHOL

Director General

Department of Electricity

Ministry of Industry and Handicrafts

Ichiro ARAKI

Team Leader

JICA Study Team

for the Nam Ngiep-I HEPP

**FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC**

**MINUTES OF MEETING
ON
INCEPTION REPORT**

The JICA Study Team for the Feasibility Study on the Nam Ngiep-I Hydroelectric Power Project (hereinafter called as "the Study Team") entrusted by the Japan International Cooperation Agency (hereinafter called as "JICA") and represented by Mr. Ichiro ARAKI the Team Leader had a series of discussions in respect of the Minutes of Meeting signed on March 27, 1998 and the Inception Report, with the authorities concerned of the Hydropower Office (hereinafter called as "HPO") of the Department of Electricity under the Ministry of Industry and Handicrafts (hereinafter called as "MIH") represented by Mr. Houmphone BULYAPHOL Director of the Department of Electricity from August 12 to 14, 1998. All the results of the discussions mutually confirmed are compiled hereunder and in the Annexes as per attached.

1. Submission of Inception Report

1.1 The Study Team submitted to the Department of Electricity, MIH, twenty (20) copies of the Inception Report, which will be distributed to the concerned agencies. The Study Team conducted a briefing of the study program. HPO reviewed the same and stated that they had no objection for the Study Team to conduct the study as outlined in the Inception Report.

1.2 HPO requested the Study Team to submit the progress report to HPO at least two (2) weeks before the 1st Workshop to be held at the middle of November 1998. HPO requested the Study Team to prepare at latest three (3) weeks prior to the Workshop a separate executive summary paper to be translated into Laotian, which will be distributed by MIH to all participants of the Workshop. The Study Team has agreed on this.

2. Environmental Assessment Committee

2.1 Mr. Hiroyuki KOBAYASHI, JICA/Tokyo explained the objectives and the scope of the Environment Assessment Committee and its establishment plan, the outline of which is shown in Annex-1. MIH accepted the outline and agreed to establish the Committee in close cooperation with JICA.

2.2 JICA proposed MIH to submit to JICA the curriculum vitae of two (2) candidates for the Laotian members of the committee through the JICA Laos office by the end of August 1998. MIH has agreed on this. JICA stated that the members of the Environment Assessment Committee would be confirmed with an agreement to be concluded between MIH and JICA.

2.3 JICA requested MIH to provide a room for the Committee's meeting. MIH replied that the room would be prepared by MIH at HPO's building in Vientiane.

3. Preparation for and Management of Workshop

3.1 The Study Team proposed to establish a Working Group for the preparatory work and the management of the Workshops. MIH has agreed to this and will nominate several members of the Working Group. Provisionally, MIH has a plan to organize the Working Group consisting of the staff from MIH, STENO and other authorities concerned, if required. MIH explained that in order to expedite progress, a work would commence on August 17, 1998 with provisional staff from MIH and STENO, and the detailed schedule of the Workshop would be finalized by the Working Group together with the Study Team by September 6, 1998 before the Study Team would leave for Japan.

3.2 MIH suggested to the Study Team that at least one (1) of the Workshops should be held at Paksan, the other two (2) in Vientiane. The Study Team agreed to consider holding the Workshop in the vicinity of the Project site (Paksan).

3.3 The Study Team proposed MIH to make (i) a cost estimate for operation and management of each Workshop for review by JICA and (ii) its demarcation between MIH and JICA. MIH agreed on it.

3.4 The Study Team proposed MIH to discuss with the Working Group the following items, but not limited to : (i) number of participants, (ii) advertisement, (iii) participants of central and local governments, (iv) procedure of workshop, (v) preparation of minutes of meeting, and (vi) interpreters. MIH has agreed on this.

4. Confirmation and Discussion for Scope of Works on March 27, 1998

The Study Team informed MIH that the drilling works scheduled in the S/W to be carried out at the proposed dam site in this stage had been cancelled, because a comprehensive geological investigation would be conducted in the next Detailed Investigation Stage. MIH has no objection to do this.

5. Confirmation and Discussion for Minutes of Meeting on March 27, 1998

- 5.1 MIH nominated seven (7) staff of the counterparts from HPO for the Study Team as listed in Annex-2. MIH explained that after completion of the other project being conducted by HPO, possibly some staff would join to the Study Team at the end of August 1998 as counterparts.
- 5.2 In response to the request by the Study Team, MIH promised to distribute the new Environmental Law to the Study Team as soon as it is enacted. For the time being, a draft is to be distributed to the Study Team.
- 5.3 MIH has provided the Study Team with an office room in HPO's building in Vientiane. The Study Team explained that it would propose another office room at the Project Site after study of the detailed schedule and method of site reconnaissance.
- 5.4 JICA explained that one (1) counterpart would be accepted in the scheduled counterpart training programme in Japan for about one (1) month in December 1998. The main subject of the training would be the know-how of environmental impact assessment in dam construction. MIH replied that the name of the candidate would be informed to JICA by the beginning of October 1998.
- 5.5 In response to the request by MIH, the Study Team promised to submit the progress report to MIH by Fax or E-mail on a bi-monthly basis in the form of the Study Team showing status of study works, performed by the Study Team.
- 5.6 In response to the request by the Study Team, MIH nominated a HPO's staff for the work of transmission line route study as shown in Annex-2, who is familiar with the policy of Lao PDR on National Grid and Grid Code.

6. Joint Site Inspection with MIH and JICA Study Team

The Study Team proposed MIH to carry out the joint site inspection by a helicopter on August 15, 1998. MIH agreed on it.

7. Environmental Assessment Survey

The Study Team submitted to Deputy Director of the Department of Electricity, MIH, five (5) copies of the draft Execution Plan of Environmental Assessment Survey, which will be distributed to the concerned agencies. The Study Team explained that a briefing of it would be made to MIH by the Environmentalists of the Study Team who would arrive in Vientiane on August 18, 1998.

ANNEX – 1 (1/2)

**Outline of the Environmental Assessment Committee for
The Environmental Impact Study on Nam Ngiep I Hydroelectric Power Project
In The Lao People's Democratic Republic**

The Environmental Impact Study on Nam Ngiep I Hydroelectric Power Project in The Lao People's Democratic Republic is to be conducted from August, 1998 to December, 1999. The methodological propriety is very important in this study.

1. Objectives

The objectives of the Environmental Assessment Committee is to review the works of EIA implemented by the JICA study team, to evaluate the technical and methodological propriety in the study and to provide the study team with the technical comment and advice necessary to secure the credibility of the study.

2. Definition

- 1) The Environmental Assessment Committee is regarded as an advisory committee for the study team.
- 2) The Environmental Assessment Committee has no authority for the implementation of the study and no responsibility for the results of the study.
- 3) All comments from the Environmental Assessment Committee are to be referred to the study and no responsibility for the results of the study.
- 4) The committee meeting is a closed meeting and only the contents of the committee report submitted by the committee is open to the public. The members of the Environmental Assessment Committee are not allowed to discuss the proceedings which are not recorded in the report to the public.
- 5) The outline of the Environmental Assessment Committee should be known to the people concerned.

3. Operations

- 1) Giving advice against the study reports.
The study team sends the study reports (Inception report, progress report and Interim report will be sent in this fiscal year) and corrects the advice from the members of the committee.
- 2) Attending the committee meetings held in Vientiane by three times a study period (Nov.1998, Jun.1999, Nov.1999), and submitting report in each meetings which will be

ANNEX -- 1 (2/2)

explained in public hearings held in two days after the meetings.

- 3) Attending the public hearings held in Vientiane by three times a study period (Nov.1998, June.1999, nov.1999).

The chairman of the committee explains the contents of the committee reports at the public hearings.

The role of the members in the public hearings is to give technical advice of necessary.

4. Organization**1) Member of the Committee**

The Environmental Assessment Committee consists of the following five environmental specialists who have a lot of experience in development projects;

- | | | |
|-----------------------|--|------------------------|
| • Hydrological | • River Environment, Hydropower Planning | Japanese expert |
| • Geology | | Japanese expert |
| • Natural Environment | | third country's expert |
| • Natural Environment | | Laotian expert |
| • Social Environment | | Laotian expert |

Elections of candidates from Japan and candidates from third countries are to be conducted by JICA and the Laotian candidates are to be elected by the government of Lao P.D.R..

The members are fixed by the agreement between the government of Lao P.D.R. and JICA.

2) General Affairs

Energy & Mining Development Study Division, Mining & Industrial Development Study Department, JICA takes charge of general affairs of the Environmental Assessment Committee is borne by JICA takes charge of general affairs of the Environmental Assessment Committee.

5. Expenses

All expenses concerned with the implementation of the Environmental Assessment Committee is borne by JICA including a per diem, hotel charges, traveling expenses and a; fee if necessary.

6. Term

The members of the committee are engaged in the duties above mentioned during the course of the study period (1998,1999).

ANNEX - 2

**LIST
OF
COUNTERPARTS CONCLUDED**

No.	JICA Study Team	Counterpart of HPO
1.	Hydropower Planner	Mr. Chansaveng BOUNGNONG (Counterpart Leader)
		Mr. Chantho MILATTANAPHENG (T/L Route Study only)
2.	Natural Environmentalist	Mr. Seumkham THOUMMAVONGSA
3.	Social Environmentalist	Mr. Anousak PHONGSAVATH
4.	Socio-Economist	Mr. Phetsavanh RATTANATHONGSAY
5.	Geophysical Survey Expert	Mr. Khonephet SAMOUNTY
6.	Geologist	Mr. Sisoukan SAYARATH
7.	Hydrologist	Mr. Chansaveng BOUNGNONG (Same as No.1)

ANNEX - 3

LIST OF ATTENDANCE

Place : Meeting Room of HPO

Date : August 12 - 14, 1998

MIH

No.	Name	Position	Organization
1.	Mr. Houmphone Bulyaphol	Director	Department of Electricity
2.	Mr. Somboune Manolom	Deputy Director	HPO, Department of Electricity
3.	Mr. Sisoukan Sayarath	Geologist	HPO, Department of Electricity
4.	Mr. Khonepheth Samounty	Civil Engineer	HPO, Department of Electricity
5.	Mr. Anousack Phongsavath	Electrical Engineer	HPO, Department of Electricity
6.	Mr. Chansaveng Bounhong	Counterpart Leader	HPO, Department of Electricity

JICA Office

No.	Name	Position	Organization
1.	Mr. Hiroyuki Kobayashi	Program Officer	JICA, Tokyo
2.	Mr. Mikio Masaki	Project Formation Advisor	JICA, Vientiane
3.	Mr. Hiroshi Murashige	HPO Advisor	JICA, Vientiane (HPO/MIH)
4.	Mr. Sophonh Kousonsavath	Program Officer	JICA, Vientiane

JICA Study Team

No.	Name	Position
1.	Mr. Ichiro Araki	Team Leader (Dam Environmental Expert)
2.	Mr. Hiroshi Ikeda	Deputy Team Leader (Hydropower Planer)
3.	Mr. Yun-shi Wang	Socio-Economist
4.	Mr. Daikichi Nakajima	Geophysical Survey Expert
5.	Mr. Kiyoshi Yamada	Geologist
6.	Mr. Kiyoshi Hirata	Hydrologist
7.	Mr. Yoshiyuki Matsui	Work Coordinator (Civil Engineer)

1. MINUTES AND MEMORANDUM FOR FIELD
INVESTIGATIONS

1.2 MEMORANDUM FOR 1ST FIELD INVESTIGATION

**FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC**

**MEMORANDUM
ON
FIRST FIELD INVESTIGATION WORKS**

The JICA Study Team for the Feasibility Study on the Nam Ngiep-I Hydroelectric Power Project (hereinafter called as "the Study Team") entrusted by the Japan International Cooperation Agency (hereinafter called as "JICA") and represented by Mr. Ichiro ARAKI the Team Leader had a series of discussions in respect of the 1st Field Investigation Work Results, with the authorities concerned of the Hydropower Office (hereinafter called as "HPO") of the Department of Electricity under the Ministry of Industry and Handicrafts (hereinafter called as "MIH") represented by Mr. Somboune MANOLOM Deputy Director of the Department of Electricity on August 24 and September 3, 4 and 8, 1998 as shown below. All the results of the discussions mutually confirmed are compiled hereunder and in the Annexes as per attached.

No.	Date	Agenda
1.	August 24	2nd Workshop working group meeting
2.	September 3	3rd Workshop working group meeting
3.	September 4	1st Presentation meeting of Work results on (i) Hydropower plan, (ii) Socio-economic, (iii) Geology and (iv) Hydrology
4.	September 8	2nd Presentation meeting of Work results on (i) Natural/Social environmental aspects and (ii) Leveling survey

1. Environmental Assessment Committee

- 1.1 MIH informed that the Laotian candidates for the Environmental Assessment Committee were in process at STENO and the Ministry of Information & Culture. MIH also informed that he would release the C/V of the candidates after receipt of the Lao government's approval. The Study Team replied to convey the information to JICA.
- 1.2 The Study Team informed to MIH of JICA's intention to propose the revised selection method and number of member from five (5) to four (4) as shown below (quoted from JICA's instruction No.MP393 on September 2, 1998 received on the day through JICA Laos Office):

"The Environmental Assessment Committee consists of four (4) specialists. The Ministry of Industry and Handicrafts (MIH) and JICA select the members of the

Composition of Environmental Assessment Committee based on the following conditions:

- (a) Each of the MIH and JICA selects two (2) members considering the following conditions (b), (c) and (d):
- (b) The members should be environmental specialists who have sufficient experience in development projects.
- (c) The two (2) members to be selected by the MIH should be one specialized in Natural Environment(River Environment) and the other in Social Environment.
- (d) The two (2) members to be selected by JICA should be one specialized in Natural Environment and the other in Geology.

The Member of the Committee will be confirmed with an agreement to be concluded between the MIH and JICA.”

- 1.3 The Study Team explained additionally that JICA would revise Clause 4 (1) in Annex-1 (2/2) of Minutes of Meeting on Inception Report concluded on August 17, 1998 as mentioned above, because of keeping equity for selection of members among the MIH and JICA.
- 1.4 MIH accepted JICA's proposal, however, MIH requested to JICA for the official proposal on the revision of Minutes of Meeting in writing. MIH explained the necessity of the official proposal that it was required for the official procedure of revision on the Minutes of Meeting in the government of Lao PDR.
- 1.5 The Study Team quoted JICA's instruction No.MP412 on September 7, 1998 received on September 8 through JICA Laos Office to MIH after conveying MIH's request to JICA that the official proposal in written form on revision of Minutes of Meeting on Inception Report was submitted from Mr. Tsuneo Takahata, Resident Representative of JICA Laos Office to Mr. Khammone Phonekeo, Vice Minister of MIH with letter No.389/JICA-SP/98 on September 8, 1998. It was requested by MIH at the 3rd Workshop Working Group Meeting on September 3, 1998.
- 1.6 MIH agreed to consider the proposal of JICA on change of composition of the Environmental Assessment Committee shown in Annex-1.

2. Schedule of Inception Report Workshops (1st workshop)

- 2.1 The Study Team explained JICA's proposal to postpone the 1st Workshop from November 18-20 to November 26-27, 1998 as shown in Annex-2 due to the tight schedule for the preparation of Workshop and the establishment of the Environmental

- Assessment Committee in time. MIH agreed on it with condition that both the briefing papers for Workshop and the Progress Report to be prepared by the Study Team should be submitted to MIH by the end of October 1998. The Study Team agreed on it.
- 2.2 MIH estimated that around eighty (80) participants would attend the Inception Report Workshop with the detailed prospective participant list as shown in Annex-3. The Study Team agreed on it.
- 2.3 MIH presented a cost estimate for the Inception Report Workshop at about US\$16,000 including a contingency as shown in Annex-4. The cost sharing between MIH and JICA is 13 % : 87 %, respectively. The Study Team replied to consider as the reasonable cost and demarcation.
- 2.4 MIH proposed to hold the Inception Report Workshop at the conference rooms of the Lane Xang Hotel in Vientiane. The Study Team agreed to hold the Workshop in Vientiane.
- 2.5 MIH proposed that each workshop should be named/titled for example; (i) Inception Report Workshop for the 1st and (ii) Interim Report Workshop for the 2nd, since the name/title was important to characterize each workshop with emphasis according to experience in the past. The Study Team agreed on it.
- 2.6 The Study Team showed a draft hourly program of Inception Report Workshop for reference as shown in Annex-5. MIH agreed on it after some changes.
- 2.7 The Study Team showed a draft form of invitation letter for the prospective participants. MIH agreed to submit an invitation letter after some modifications on it.
- 2.8 The Study Team proposed the tentative schedule of 2nd Workshops from June 9 (Wednesday) to 11 (Friday), 1999 and 3rd Workshop from December 7 (Tuesday) to 9 (Thursday), 1999 as shown in Annex-6. MIH agreed on the tentative schedule.

3. Final Execution Plan of Environmental Assessment Survey

The Environmentalists of the Study Team explained to carry out the EIA survey for the following five (5) major items:

- Socio-economic survey
- Water quality survey
- Aquatic ecology & Fisheries surveys
- Wildlife, habitats & forestry survey
- Land use survey

Five (5) copies of the final execution plan of EIA survey were submitted to MIH on September 9, 1998. MIH informed the Study Team of no objection to it.

4. Environmental Assessment Survey to be Sublet

The Study Team explained the overall schedule for EIA survey as shown in Annex-7. The draft tender documents for the survey was submitted to MIH on September 8, 1998 for his reference. After getting approval from JICA, the tender will be proceeded.

5. Establishment of Hydrological Observation at Site

- 5.1 The Study Team requested MIH to extend the Agreements of observation on the three (3) hydrological gauging stations after expiration of the Agreements for two (2) months and to maintain the hydrological gauges.

MIH agreed to extend the Agreement and to maintain the gauges, however, MIH requested the Study Team to charge the costs for observers and the transportation costs for data collection by MIH staff as shown in Annex-8, since the costs of hydrological observation had been agreed to pay by JICA during visit of the preliminary study team in February 1998.

The Study Team replied to convey the above requirements to JICA, since the Contract between JICA and the Study Team did not cover the costs of hydrological observation.

- 5.2 The Study Team requested MIH to carry out regularly a current velocity and water discharge observation at least one (1) time per month at the above two (2) water level gauging stations including their maintenance. HPO's counterparts were trained already at the site to operate a water current meter by the hydrologist.

MIH agreed on the above observation, however, it requested the Study Team to charge the direct costs for the observation including transportation, lodging and allowance at least eighteen (18) months during the Study Team's work period due to the same reason as the above.

The Study Team replied to convey the above requirements to JICA with the cost to be prepared by MIH, since the costs of the observation were not covered by the Contract between JICA and the Study Team.

- 5.3 The Study Team requested MIH to install water level gauge plates additionally below the existing gauging plates at both stations in dry season. Because, the plates are still not enough to measure water level in dry season, although nine (9) plates were installed

at the Ngiep river and six (6) at the Xao river. The Study Team will bring water level plates at 2nd field investigation scheduled late November 1998.

MIH agreed on it with the condition that the Study Team would cover the direct costs for installation. The Study Team agreed on it.

6. Transfer of Hydrological Equipment

The Study Team submitted the transfer certification of the hydrological survey equipment with each operation and maintenance manual as shown below :

No.	Equipment	Specifications	Numbers	Place
1.	Current meter	Plyse-electric type	1 no.	Store room in HPO
2.	Rain gauge	Tipping bucket type	1 set	Installed at B. Thaviang.
3.	Water level staff	1 m long	15 pieces	Installed at B. Hatkham/Thahun.
4.	Life vests	-	5 nos.	Store room in HPO
5.	Tools	Elec.drill, scop, rope	1 set	Store room in HPO

MIH received the above hydrological survey equipment, and made a signature on it as shown in Annex-9.

7. Presentation of 1st Field Investigation Work

7.1 The Study Team deeply appreciated MIH's cooperation not only for an office work in Vientiane but also for a site investigation works at Pakxan, B.Hatkham and B.Thavian. Thanks to HPO's counterparts, each member of the Study Team could complete his tasks at this stage within the scheduled period.

7.2 The Study Team presented to MIH his draft contents of the Progress Report to be submitted to NIH by the end of October 1998 for advance information.

7.3 The Hydropower Planner explained his review results of the high dam scheme proposed at Pre-F/S and possible alternative study of (i) Low dam scheme and (ii) combined Low dam and Run-of-river scheme, as well as methodology of comparative study.

In reply to his request of updated cost data for construction cost estimate, MIH suggested the data had been available in the database of MIH. The Study Team confirmed to receive the data at this stage.

Regarding the route study of T/L and sub-stations for the Project, MIH suggested to study power market study with T/L route study not only in Thailand but also in Vietnam.

7.4 The Environmentalists explained their study results on (i) General work program, (ii)

Major items of Final Execution Plan of EIA, (iii) Tendering progress of preparation for EIA survey and (iv) Preparation of IEE report.

They explained the general work program to be executed until the end of 1999 as shown in Annex-10.

- 7.5 The Socio-economist explained his preliminary study results on (i) macro situation, (ii) IPP development, (iii) demand forecast and (iv) project evaluation.

MIH suggested to use the up-to-date economic factor and to evaluate the Project under the latest government policy, since the latest data were admitted for the Study Team.

- 7.6 The Geophysical survey expert explained his survey results of the GPS leveling survey. He surveyed twenty three (23) points in total including existing B/Ms, villages and rivers with two (2) HPO's counterparts from August 25 to September 4, 1998 by using a helicopter chartered in Vientiane.

He reported that a precise level of each point would be calculated by the end of next week around September 18, 1998, since the levels surveyed by GPS should be adjusted by the ground level survey results to be finished on September 13, 1998. He also reminded that X-Y coordinates surveyed by GPS had a good accuracy, however the coordination system of GPS did not conform to the system of 1:100,000 and 1:50,000 scaled maps but be available for 1:25,000 scaled map. The possible conversion between both systems is under consideration.

The Study Team proposed to carry out a presentation of GPS performance at MIH on September 17, 1998, since the expert would leave Vientiane September 22, 1998. MIH agreed on it.

- 7.7 The Geologist explained his survey results on (i) data collection for geological map, aerial photographs and seismic data, and (ii) dam geology and construction material through site reconnaissance.

The Study Team informed that the VTR during site reconnaissance would be submitted to MIH at 2nd Field Investigation Stage after compilation/duplication of it in Japan.

- 7.8 The Hydrologist of the Study Team reported that one (1) rain gauge station and two (2) water level gauging stations were newly installed as shown below :

No.	Gauging Station	Installed Date	Place	River
1.	Rain gauge station	Aug.21'98	B. Thaviang	-
2.	Water level gauging station - 1	Sep.01'98	B. Hatkham	Ngiep river
3.	Water level gauging station - 2	Sep.01'98	B. Thahua	Xao river

The Hydrologist reported that the tentative observation system for each gauging station were established for two (2) months from the end of August 1998 to the end of October 1998 by the Agreements between the Study Team and the observers who were employed at the site as shown below :

No.	Gauging Station	Agreement Date	Observer	Conditions
1.	Rain gauge station	Aug.21'98	Mr. Kham Mang	30,000 Kip/Month
2.	W.L. gauging station - 1	Sep.01'98	Mr. Sieng Mai	30,000 Kip/Month
3.	W.L. gauging station - 2	Sep.01'98	Mr. Phong See	20,000 Kip/Month

8. Tentative Schedule for 2nd Field Investigation Works

The tentative schedule of 2nd Field Investigation Works shown in Annex-2 was confirmed between MIH and the Study Team.

9. List of Counterparts

The list of counterparts who had engaged in the Project at the 1st Field Investigation Work as shown in Annex-11 was confirmed between MIH and the Study Team.

ANNEX - 1 Official Proposal in Written Form



JAPAN INTERNATIONAL COOPERATION AGENCY
 NAKAY VILLAGE UNIT 24 ROAD WAT SIKANGVONG
 SAYSETHA DISTRICT VIENTIANE MUNICIPALITY
 P.O. BOX 3033 VIENTIANE LAO P.D.R.
 TEL: (856-21) 412 884 412 885 414 387 FAX: (856-21) 414 388
 TELEX: 44914492 TVETELS
jica.lao@jica.go.jp

8th September 1998
 No. ~~329~~ / JICA-SP/98

JAPAN INTERNATIONAL COOPERATION AGENCY
 NAKAY VILLAGE UNIT 24 ROAD WAT SIKANGVONG
 SAYSETHA DISTRICT VIENTIANE MUNICIPALITY
 P.O. BOX 3033 VIENTIANE LAO P.D.R.
 TEL: (856-21) 412 884 412 885 414 387 FAX: (856-21) 414 388
 TELEX: 44914492 TVETELS
jica.lao@jica.go.jp

H.E. KHAMMONE PHONKEKO
 Vice Minister,
 Ministry of Industry and Handicraft

**RE-CHANGE OF COMPOSITION OF ENVIRONMENTAL ASSESSMENT COMMITTEE
 AGREED IN MINUTES OF MEETING ON INCEPTION REPORT OF FEASIBILITY
 STUDY ON THE NAM-NGIEP-I HYDROELECTRIC POWER PROJECT**

H.E. Soulivong,

With reference to "Members of the Committee", item 1) of Clause 4 of Annex-1 attached to the Minutes of Meeting, JICA requests you to accept an proposal on the change of Composition of Environmental Assessment Committee as follows.

4. Organization
 1) Members of the Committee

The Environmental Assessment Committee consists of four specialists. The Ministry of Industry and Handicraft (MIH) and JICA select the members of the Composition of Environmental Assessment Committee based on the following conditions:

- Each of the MIH and JICA selects two members considering the following conditions, b), c) and d).
- The members should be environmental specialists who have sufficient experience in development projects.
- The two members to be selected by the MIH should be one specialized in Natural Environment (River Environment) and the other in Social Environment.
- The two members to be selected by JICA should be one specialized in Natural Environment and the other in Geology.

The Members of the Committee will be confirmed with an agreement to be concluded between the MIH and JICA.

The reasons of the change are follows:

- Appropriate number of the committee's member will be half of the number of study team's member.



- One JICA specialist, Mr. Adachi, who was supposed to be a candidate of the members of the committee should not be a member of the committee due to his position.
- It would be fair that each of both sides, the MIH and JICA, will select two of four members of the committee.

It would be highly appreciated if you could accept this change which might cause you come inconvenience.

Yours faithfully,



- c.c. Director General, Committee for Investment and Cooperation
 - Mr. Hiroshi MURASHIGE, JICA expert, Ministry of Industry and Handicraft
 - Mr. Ichiro ARAKI, Leader of JICA study team, Hydropower Office
 - Mr. Somboune MANOLOM, Deputy Director General, Department of Electricity, Hydropower Office



ANNEX -- 2

**TENTATIVE SCHEDULE
OF
INCEPTION REPORT WORKSHOP
AND
2ND FIELD INVESTIGATION WORKS**

No.	Date (1998)	Events	Remarks
1	Nov.17 (Tue.)	TYO→BKK	
2	Nov.18 (Wed.)	BKK→VTE	JICA Study Team (4 members)
3	Nov.19 (Thu.)	Workshop working group	Review of Preparation status
4	Nov.20 (Fri.)	Meeting with MIH	Presentation of Progress Report
5	Nov.21 (Sat.)	Environmental Committee (1st day)	Joint Site Insp.(MIH,JICA,S/Team)
6	Nov.22 (Sun.)	Holiday	
7	Nov.23 (Mon.)	Environmental Committee (2nd day)	Presentation by Study Team
8	Nov.24 (Tue.)	Environmental Committee (3rd day)	Discussion inside
9	Nov.25 (Wed.)	Environmental Committee (4th day)	Reporting
10	Nov.26 (Thu.)	Workshop (1st day)	
11	Nov.27 (Fri.)	Workshop (2nd day)	P.M.: Workshop working group
12	Nov.28 (Sat.)	Meeting with MIH	Preparation of M.O.M.
13	Nov.29 (Sun.)	Holiday	
14	Nov.30 (Mon.)	Sign on M.O.M., VTE→BKK	T/Leader only
15	Dec.01 (Tue.)	BKK→TYO	
27	Dec.13 Sun.)	Holiday	
28	Dec.14 (Mon.)	Meeting with MIH	Minutes of Agreement
29	Dec.15 (Tue.)	VTE→BKK	T/Leader only, others on Dec.15 (Tue.)
30	Dec.16 (Wed.)	BKK→TYO	

ANNEX - 3 List of Prospective Participants

Nam Ngiep-1 Hydroelectric Power Project
Prospective Participants
For
Inception Report Workshop

As of September 9, 1998

1. Chairman.		
No:	Organization	Number
1	MIH	1
2	STENO	1
3	Ministry of Information and Culture (MIC)	1
4	JICA	4

2. Lao PDR - Government.		
No:	Organization	Number
1	National Assembly	1
2	STENO	4
3	Ministry of Foreign Affairs	1
4	State Planning Committee	1
5	Ministry of Justice	1
6	Ministry of Defence	1
7	Ministry of Information and Culture	1
8	Ministry of Communications, Transport, Posts & Construction	1
9	Ministry of Public Health	1
10	Ministry of Finance	1
11	Ministry of Labour and Social Welfare	1
12	Ministry of Industry and Handicrafts	1
13	Ministry of Agriculture and Forests	3
14	Resettlement Committee	1
15	EDL	1
16	Lao Women's Union	1
17	Youth Union	1
18	National Front	1
19	Lao Trade Union	1
20	Prime Minister's Office	1
21	Saysomboun Special Region	1
22	Xiang Khouang Province	1
23	Bolikhamxay Province	1
		28

3. Local People		
No:	Organization	Number
1	Reservoir Area	8
2	Downstream Area	2
3	Upstream Area	5
		15

4. International Organization		
No:	Organization	Number
1	UNDP	1
2	Ambassy of Japan+ JICA	5
3	MRC	1
4	TUCN	8

5. NGOs in Laos		
No:	Organization	Number
1	RED CROSS	1
2	Cooperation Int'l Pour Le Development et la Solidarité	1
3	Wildlife Conservation Society (WCS)	1
4	Japan International Volunteer Center (JVC)	1
5	QUAKERS	1
6	CUSO	1
7	Japan Sotoshu Relief Committee (JSRC)	7

6. NGOs from Overseas		
No:	Organization	Number
1	International River Network (IRN)	1
2	World Wildlife Fund (WWF)	1
3	Friends Of the Earth	1
4	Mekong Watch	4

7. Others		
No:	Organization	Number
1	Environmental Assessment Committee	4
2	JICA Study Team	4
3	Workshop Working Group	6
		14

Grand Total		Number
		80

ANNEX - 4 List of Cost Estimate COST ESTIMATE FOR CONDUCTING THE INCEPTION REPORT WORKSHOP

Item	Description	Unit	Day	Qty	Unit price KIP/US\$	MIH		JICA	
						KIP	\$	KIP	\$
1	Conference room	room	2	2	\$180.00				720
2	Microphone	set	2	1	\$30.00		60		
3	Earphone	set	2	1	\$120.00				240
4	Coffee break	person	2	80	\$2.00				640
5	Lunch	person	2	80	\$10.00				1600
6	Computer	unit	2	1	\$50.00		100		
7	Printer	unit	2	1	\$30.00		60		
8	Photocopy Machine	unit	2	1	\$50.00		100		
9	Toner for Photocopy Machine	piece		1	\$50.00				50
10	Overhead projector	unit	2	1	\$30.00		60		
11	Paper A4	ream		5	15,000			75,000	
12	Paper A3	ream		2	35,000			70,000	
13	Cartridge for printer	piece		1	\$130.00				130
14	Interpreter	person	2	2	\$300.00				1200
15	Facilitator	person	2	2	\$300.00				1200
16	Note pad and pens	set		78	6,000			468,000	
17	Cars		2	3	\$60.00		360		
18	Mini-Bus (30 seats)		3	1	\$50.00				150
19	Secretary	person	2	3	\$25.00		150		
20	Transparency	pack		1	70,000			70,000	
21	Board marker	piece		15	2,500			37,500	
22	Printing of colour transparency	sheet		20	\$2.00		40		
23	Invitation card	piece		85	2,000	170,000			
24	Envelop	box		2	10,000	20,000			
25	Translation of document in to Lao	page		200	\$10.00				2000
26	Distribution of document	kg		10	\$50.00				500
27	Writing side paper(instead of write board)	Piece		20	\$2.00		40		
28	Drawing								
	Maps	sheet		8	2,000			16,000	
	Plastic	m		5	3,000			15,000	
	Scotch tape	piece		5	6,000			30,000	
	Styrofoam	piece		10	6,000			60,000	
29	Reception Dinner	person	1	100	\$15.00				1,500
30	Additional Drinks	person	1	100	\$3.00				300
31	People from the project area	person		18					
	Meals	person	3	18	15,000			810,000	
	Hotel	per/day	3	18	\$20.00				1,080
	Transportation Fare	person	2	18	20,000			720,000	
32	Fax , telephone	times		20	\$10.00		200		
33	Distribution of invitation, document	times		1	\$150.00		150		
34	Announcement on the Vientiane Time and Passasone	day		7	50,000			350,000	
35	Film , develop	piece		5	33,500			167,500	
36	Small battery	pairs		5	5,000			25,000	
37	V D O Cassettes	piece	2	1	\$5.00				10
38	For taking V D O	person	2	2	\$20.00				80
39	Photographer	person	2	2	\$10.00				40
40	Name tag	piece		85	\$1.00				85
41	Registration book	piece		2	10,000	20,000			
42	Name and title card	piece		25	15,000	375,000			
43	AutoCAD Printing	piece		10	25,000	250,000			
44	Translation of summary rep. of workshop	page		100	\$10.00				1000
45	Banner	piece		1	120,000			120,000	
46	Workshop assistants	person	3	5	\$30.00		450		
47	Laser pointer	set		2	\$10.00				20
48	Perdium for Lao participants	person	2	50	7,000			700,000	
	TOTAL					835,000	1,770	3,734,000	12,545

Remark : Exchange Rate: 1US\$ = 3,705 kip (As of 26 August 1998)

	Expenditure		
	Total in Kip	Converted to US\$	%
Contribution from MIH	7,392,850	1,995	12.8%
Contribution from JICA	50,213,225	13,553	87.2%
TOTAL	57,606,075	15,548	100.0%

ANNEX - 5

**Draft Program
of
Inception Report Workshop (1st)**

No.	Time	Program	Presented By
First Day (November 26, Thursday, 1998)			
1.	8:30 - 9:30	Registration	HPO/MIH
2.	9:30 - 9:45	Opening Speech	Vice-Minister of MIH
3.	9:45 - 10:00	Introduction of : ①Working group, ②JICA Study Team, ③ Environmental Assessment Committee	Chairman
4.	10:00 - 10:30	General Presentation of : ①Background, ②Project area, ③Purpose of study, ④Schedule of study	S/Team (Mr.Araki)
5.	10:30 - 11:00	Morning Coffee Break	-
6.	11:00 - 11:30	Presentation of : general project features and alternatives	S/Team (Mr.Ikeda)
7.	11:30 - 12:00	Presentation of : Initial Environment Examination (IEE) Results	S/Team (Mr.Yon & Mr.Ragsdale)
8.	12:00 - 13:30	Lunch Break	-
9.	13:30 - 14:00	Presentation of : Execution plan for Environmental Assessment Survey	S/Team (Mr.Yon)
10.	14:00 - 14:30	General Comments of : Environmental Assessment Committee	E.A. Committee
11.	14:30 - 15:00	Afternoon Coffee Break	-
12.	15:00 - 16:00	General Discussion	Chairman
Second Day (November 27, Friday, 1998)			
1.	8:30 - 9:30	Registration & Receipt of general inquiries	HPO/MIH
2.	9:30 - 9:45	Proposal of Sub-sessions	S/Team
3.	9:45 - 10:00	Establishment of Sub-sessions	S/Team
4.	10:00 - 10:30	Morning Coffee Break	-
5.	10:30 - 12:00	Detailed discussion at each session	Chairman of session
6.	12:00 - 13:30	Lunch Break	-
7.	13:30 - 15:00	Detailed discussion at each session	Chairman of session
8.	15:00 - 15:30	Afternoon Coffee Break	-
9.	15:30 - 16:00	Presentation of each session	Chairman of session
10.	16:00 - 16:30	Answer to general inquiries & Comments	S/Team
11.	16:30 - 16:45	Schedule of next Workshop	S/Team
12.	16:45 - 17:15	Closing Speech	Representative of JICA
13.	17:15 - 19:00	Meeting of Environmental Assessment Committee	-
14.	19:00 - 20:30	Reception for Inception Workshop	-

ANNEX - 6

**Tentative Time Schedule
of
2nd and 3rd Workshop
and
4th and 6th Field Investigation by JICA Study Team**

2nd Workshop / 4th Field Investigation by JICA Study Team

No.	Date (1999)	Events	Remarks
1	May 17 (Mon.)	TYO→BKK	JICA Study Team (3 members)
2	May 18 (Tue.)	BKK→VTE	-
3	May 19 (Wed.)	-	-
4	May 20 (Thu.)	TYO→BKK	T/Leader only
5	May 21 (Fri.)	BKK→VTE, Meeting with MIH	Presentation of Interim Report
18	June, 03 (Thu.)	Workshop working group	Review of preparation status
19	June, 04 (Fri.)	Environmental Committee (1st day)	Presentation by Study Team
20	June, 05 (Sat.)	Environmental Committee (2nd day)	Joint Site Insp.(MIH,JICA,S/Team)
21	June, 06 (Sun.)	Holiday	
22	June, 07 (Mon.)	Environmental Committee (3rd day)	Discussion inside
23	June, 08 (Tue.)	Environmental Committee (4th day)	Reporting
24	June, 09 (Wed.)	Workshop (1st day)	-
25	June, 10 (Thu.)	Workshop (2nd day)	-
26	June, 11 (Fri.)	Workshop (3rd day)	-
27	June, 12 (Sat.)	Environmental Committee (5th day)	
28	June, 13 (Sun.)	Holiday	
29	June, 14 (Mon.)	VTE→BKK	Hydropower Planner only
30	June, 15 (Tue.)	BKK→TYO	-
43	June, 28 (Mon.)	Meeting with MIH	Preparation of M.O.M.
44	June, 29 (Tue.)	Sign on M.O.M., VTE→BKK	T/Leader and other 2 members
45	June, 30 (Wed.)	BKK→TYO	-

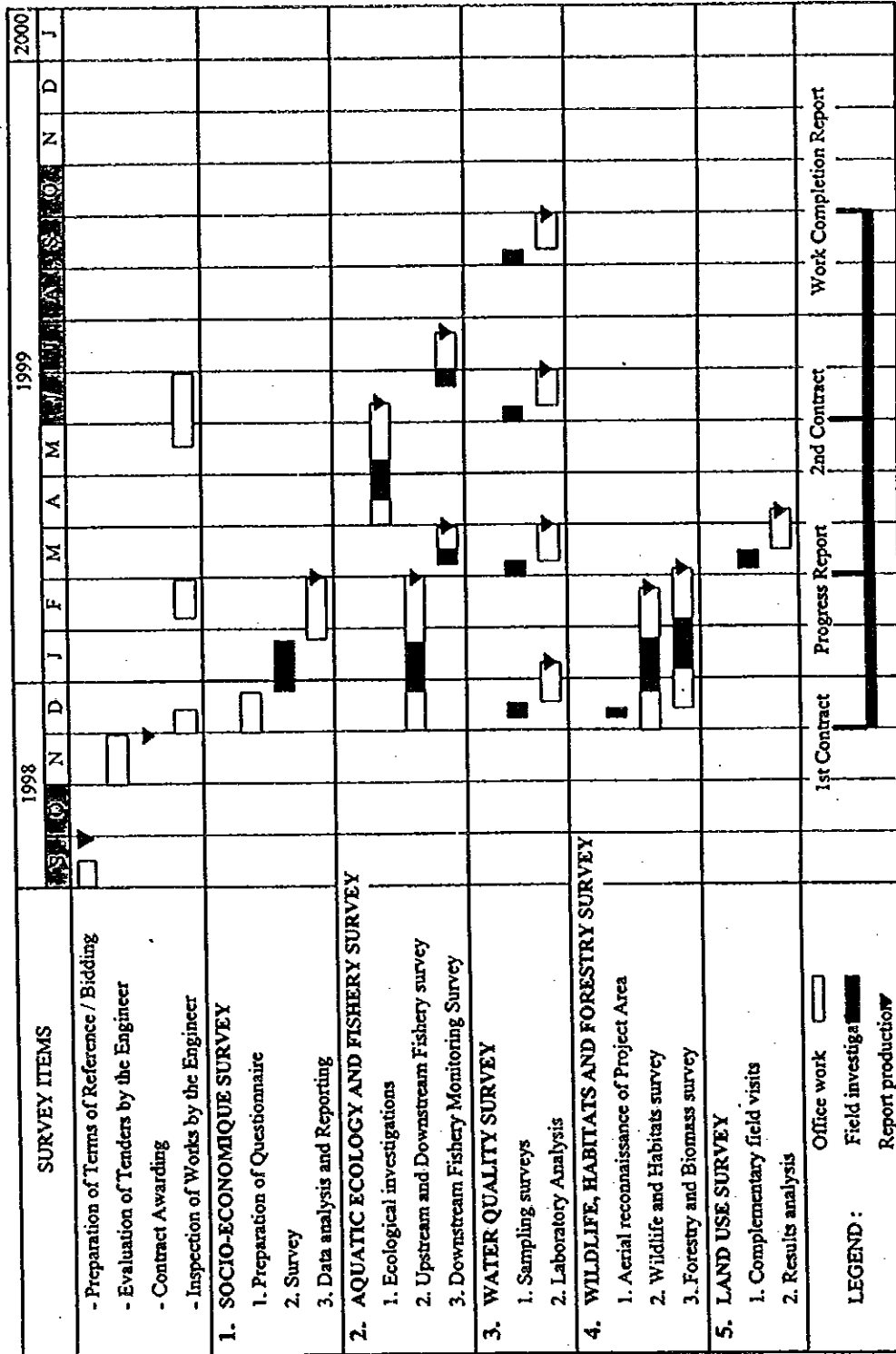
3rd Workshop / 6th Field Investigation by JICA Study Team

No.	Date (1999)	Events	Remarks
1	Nov.30 (Tue.)	TYO→BKK	JICA Study Team(4 members)
2	Dec.01 (Wed.)	BKK→VTE	
3	Dec.02 (Thu.)	Holiday	
4	Dec.03 (Fri.)	Meeting with MIH	Presentation of Draft Final Report
5	Dec.04 (Sat.)	Environmental Committee (1st day)	Presentation by Study Team
6	Dec.05 (Sun.)	Holiday	
7	Dec.06 (Mon.)	Environmental Committee (2nd day)	Discussion inside & Reporting
8	Dec.07 (Tue.)	Workshop (1st day)	-
9	Dec.08 (Wed.)	Workshop (2nd day)	-
10	Dec.09 (Thu.)	Workshop (3rd day)	-
11	Dec.10 (Fri.)	Environmental Committee (3rd day)	Discussion inside & Reporting
12	Dec.11 (Sat.)	Meeting with MIH	Preparation of M.O.M.
13	Dec.12 (Sun.)	Holiday	-
14	Dec.13 (Mon.)	Sign on M.O.M., VTE→BKK	T/Leader and other members
15	Dec.14 (Tue.)	BKK→TYO	-

ANNEX - 7 Overall Schedule for Environmental Assessment Survey

FEASIBILITY STUDY ON THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT

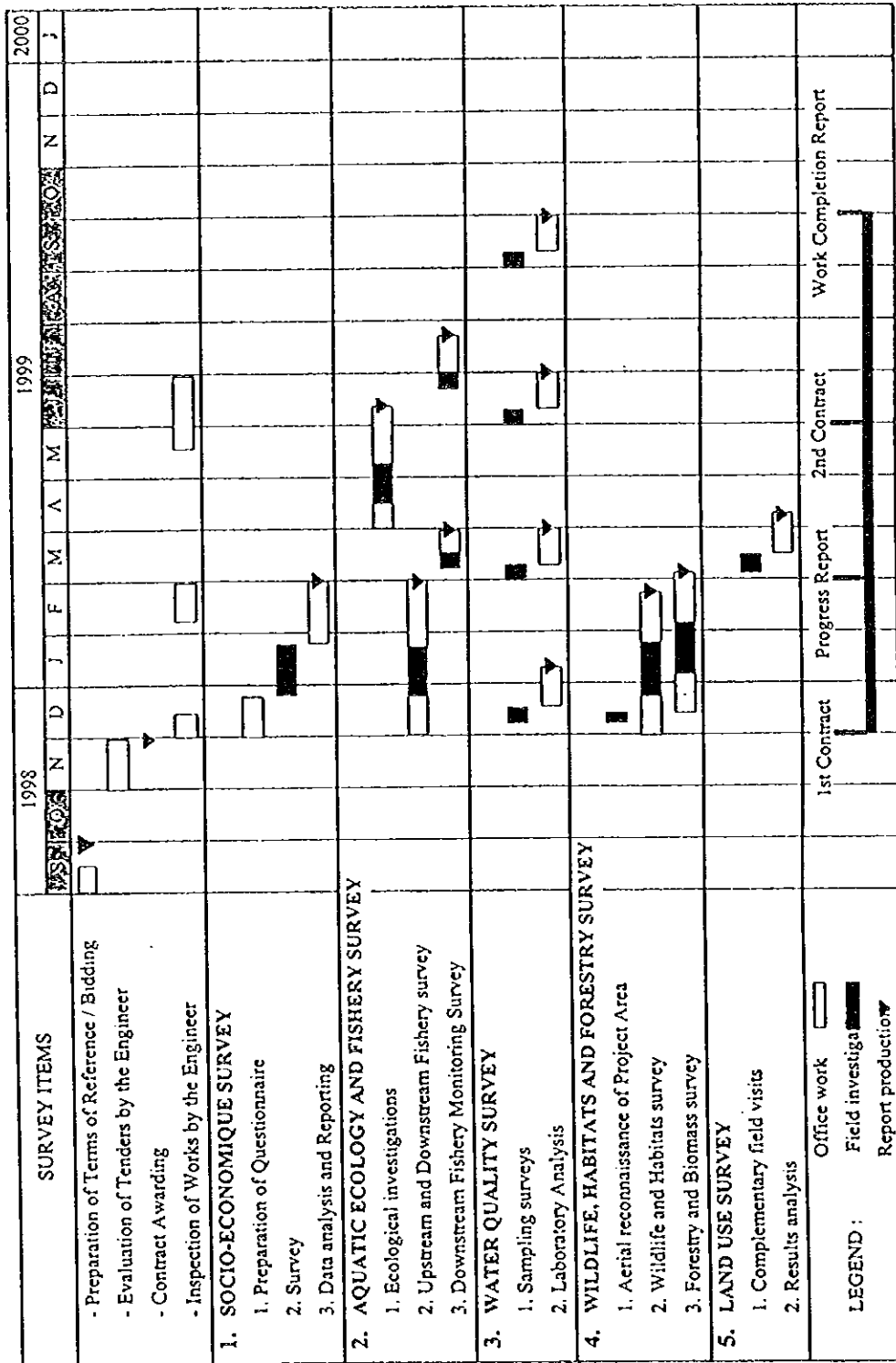
OVERALL SCHEDULE FOR ENVIRONMENTAL ASSESSMENT SURVEYS



ANNEX - 7 Overall Schedule for Environmental Assessment Survey

FEASIBILITY STUDY ON THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT

OVERALL SCHEDULE FOR ENVIRONMENTAL ASSESSMENT SURVEYS



ANNEX - 8 Cost Estimate for Hydrological Observation

Cost Estimate for Observation of two Water level, and one Rain gauge stations

(Unit : US\$)

No.	Item	Person	Days	Month	Unit Price	Amount
I. Observation of the rain gauge station						
1	Air-ticket(Vientiane-Phonsavane)	2		18	30	1,080
2	Rental car(Phonsavane-Thavian)		2	18	100	3,600
3	Driver		2	19	10	360
4	Allowance	2	3	18	20	2,160
5	Observer			18	10	180
	Sub-total					7,380
II. Observation of two water level gauging stations						
1	Rental car		2	18	100	3,600
2	Driver		2	18	10	360
3	Allowance	2	2	18	20	1,440
4	Observer for station No.1			18	10	180
5	Observer for station No.2			18	8	144
	Sub-total					5,724
III. Additional installation lower level gauging station						
1	Rental car		2		100	200
2	Driver		2		10	20
3	Allowance	2	2		20	80
4	Cement, wood, and other expenses					100
	Sub-total					400
	Contingency 5% of total					675
	Total					1,4179

ANNEX - 9 Transfer Certification of Hydrological Survey Equipment

LAOS JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 HYDROPOWER OFFICE (HPO), MINISTRY OF INDUSTRY AND HANDICRAFTS (MIH)
 JICA STUDY TEAM OF NAM NGIEP-I HYDROELECTRIC POWER PROJECT

Nam Ngiep-I HEPP Nippon Koei Co., Ltd. FAX : 856 (21) 41 - 5036
 JICA Study Team HPO/MIH Office TEL : 856 (21) 41 - 5036
 Nong Bone Road, Vientiane, LAO PDR E-mail : laonk@loxinfo.co.th

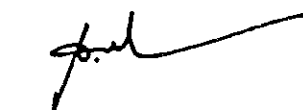
TRANSFER CERTIFICATION OF HYDROLOGICAL SURVEY EQUIPMET

We have received the hydrological survey equipment as listed below through the JICA Study Team of the Nam Ngiep-I Hydroelectric Power Project :

<i>No.</i>	<i>Equipment</i>	<i>Specifications</i>	<i>Numbers</i>	<i>Place</i>
1.	<i>Current meter</i>	<i>Plyse-electric type</i>	<i>1 piece</i>	<i>Store room of HPO</i>
2.	<i>Rain gauge</i>	<i>Inverted measure type</i>	<i>1 set</i>	<i>Installed at B.Thaviang</i>
3.	<i>Water level staff</i>	<i>1 m long each</i>	<i>15 pieces</i>	<i>Installed at B.Hatkham and B.Thahua</i>
4.	<i>Life vests</i>	<i>For current observation</i>	<i>5 pieces</i>	<i>Store room in HPO</i>
5.	<i>Tools</i>	<i>Elec.drill, scop, rope</i>	<i>1 set</i>	<i>Store room in HPO</i>

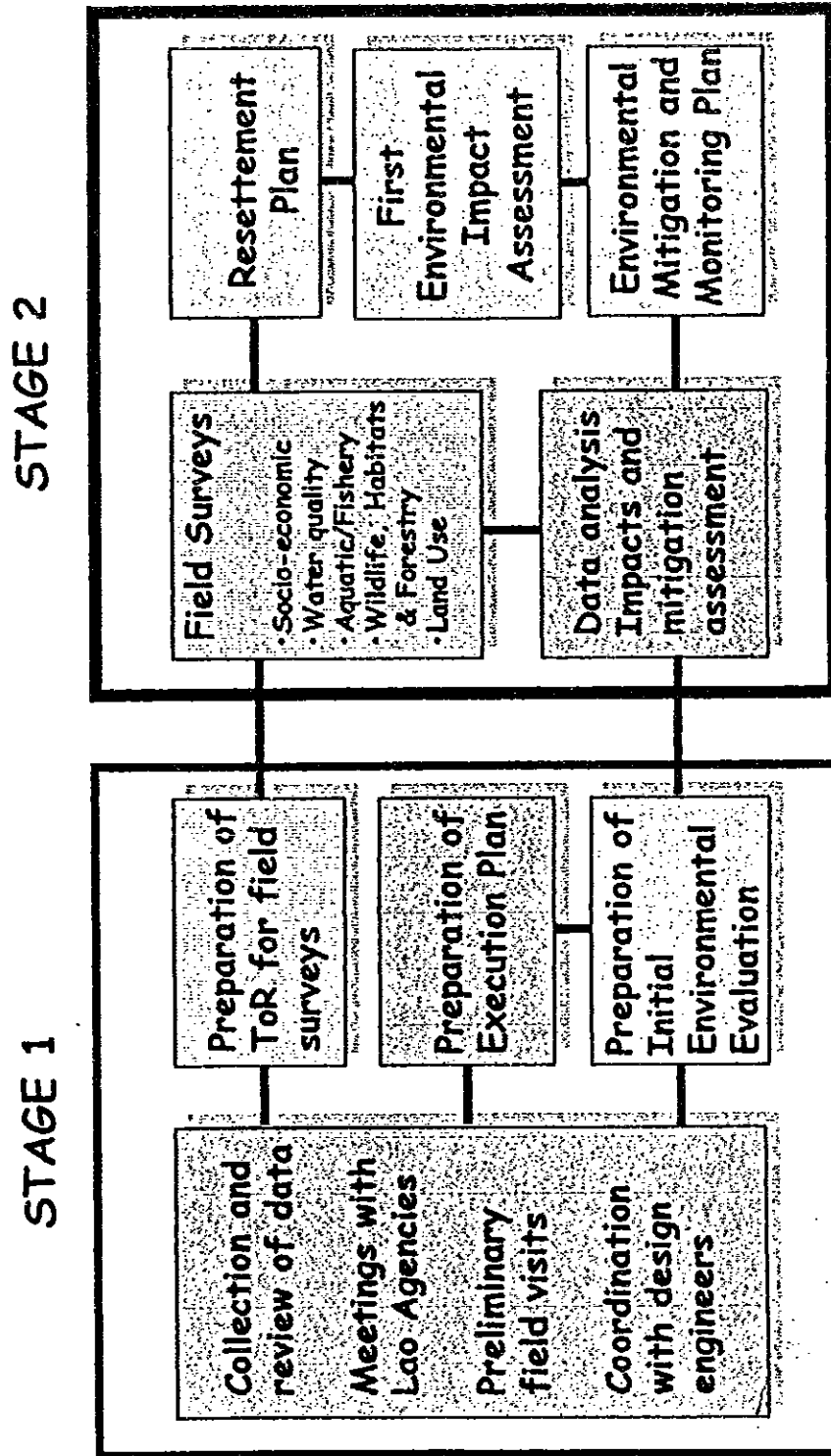
Dated September 4, 1998

Received by



Mr. Somboune MANOLOM
Deputy Director
Hydropower Office, MIH

ANNEX - 10 General Work Program



ANNEX - 11

**LIST
OF
COUNTERPARTS ENGAGED**

No.	Scope of Works	Counterpart of HPO
1.	Counterpart Leader	Mr. Chansaveng BOUNGNONG
2.	Transmission Line Plan	Mr. Chantho MILATTANAPHENG
3.	Natural Environment	Mr. Seumkham THOUMMAVONGSA
4.	Social Environment	Mr. Anousak PHONGSAVATH
5.	Economy	Mr. Phetsavanh RATTANATHONGSAY
6.	Geophysical Survey	Mr. Khonephet SAMOUNTY
7.	Geology	Mr. Sisoukan SAYARATH
8.	Hydrology	Mr. Khammanh SORPHASETH
9.	Hydrology	Mr. Vitounhlabundit THOUMMABOUT
10.	Geophysical Survey	Mr. Sinxay PHENGSAVATH
11.	Hydropower Plan	Mr. Khanthala SISAMOUTH
12.	Hydropower Plan	Mr. Houmphanh PHADOUANGDETH

ANNEX - 12

LIST OF ATTENDANCE

Place : Meeting Room of HPO

Date : August 24, September 3, 4 and 8, 1998

MIH

No.	Name	Position	Organization
1.	Mr. Somboune Manolom	Deputy Director	HPO, Department of Electricity
2.	Mr. Chansaveng Bounghong	Counterpart Leader	HPO, Department of Electricity
3.	Mr. Seumkhan Thoummavongsa	Counterpart	HPO, Department of Electricity
4.	Mr. Khonepheth Samounty	Counterpart	HPO, Department of Electricity
5.	Mr. Anousack Phongsavath	Counterpart	HPO, Department of Electricity
6.	Mr. Phetsavan Rattanathongsay	Counterpart	HPO, Department of Electricity

JICA Office

No.	Name	Position	Organization
1.	Mr. Mikio Masaki	Project Formuration Advisor	JICA, Laos Office
2.	Mr. Hiroshi Murashige	HPO/MIH Advisor	JICA, Expert
3.	Mr. Sophonh Kousonsavath	Program Officer	JICA, Laos Office

JICA Study Team

No.	Name	Position
1.	Mr. Ichiro Araki	Team Leader (Dam Environmental Expert)
2.	Mr. Hiroshi Ikeda	Deputy Team Leader (Hydropower Planer)
3.	Mr. Bernard YON	Natural Environmental Expert
4.	Mr. Tod Anthony Ragsdale	Social Environmental Expert
5.	Mr. Yunshi Wang	Socio-Economist
6.	Mr. Daikichi Nakajima	Geophysical Survey Expert
7.	Mr. Kiyoshi Yamada	Geologist
8.	Mr. Kiyoshi Hirata	Hydrologist
9.	Mr. Yoshiyuki Matsui	Work Coordinator (Civil Engineer)

1. MINUTES AND MEMORANDUM FOR FIELD
INVESTIGATIONS

1.3 MEMORANDUM FOR 2ND FIELD INVESTIGATION

**FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC**

**MEMORANDUM
ON
SECOND FIELD INVESTIGATION WORKS**

The JICA Study Team for the Feasibility Study on the Nam Ngiep-I Hydroelectric Power Project (hereinafter called as "the Study Team") entrusted by the Japan International Cooperation Agency (hereinafter called as "JICA") and represented by Mr. Ichiro ARAKI the Team Leader had a series of discussions in respect of the 2nd Field Investigation Work Results, with the authorities concerned of the Hydropower Office (hereinafter called as "HPO") of the Department of Electricity under the Ministry of Industry and Handicrafts (hereinafter called as "MIH") represented by Mr. Somboune MANOLOM Deputy Director of the Department of Electricity on November 19, 20, 27 November and 1 December, 1998 as shown below. All the results of the discussions mutually confirmed are compiled hereunder and in the Annexes as per attached.

No.	Date	Agenda
1.	November 19	Presentation Meeting of Progress Report and Workshop Working Group Meeting
2.	November 20	General Meeting among HPO, JICA and Environmental Assessment Committee
3.	November 27	Meeting among HPO, JICA and EAC for Reviewing of 1st Workshop
4.	December 1	General meeting of 2nd Field Investigation

1. Submission of Progress Report

The Study Team submitted to HPO of the Department of Electricity, MIH, twenty (20) copies of the Progress Report with the Initial Environmental Examination (IEE) Report, which will be distributed to the concerned agencies including two (2) members of the Environmental Assessment Committee. The Study Team conducted a briefing of the study program on 2nd Field Investigation and the 1st Workshop. HPO reviewed the both reports and stated that they had no objection basically for the Study Team to report the study results as mentioned in the Progress Report. However, HPO pointed out some mistakes in the reports and commented their requirements for the further report.

2. Attendance at Meetings of Environmental Assessment Committee

The Study Team attended the meetings of Environmental Assessment Committee (hereinafter called as "the EAC") held at the meeting room of HPO on November 23 to

25, 1998 together with HPO as shown below:

No.	Date	Agenda
1.	November 21	Joint Site Inspection by Helicopter prepared by JICA
2.	November 23	Presentation Meeting to EAC by S/Team about Workshop Procedures
3.	November 24	Discussion Meeting for the Progress Report and IEE Report
4.	November 25	Report Meeting of EAC's Comments to S/Team

3. Presentation at 1st Workshop

The Study Team conducted the 1st Workshop following the program listed in Annex-1. The Study Team mainly presented (i) general description of the Project, (ii) general description of the Study, (iii) basic approach of the Study, (iv) hydropower plan with alternatives and (iv) IEE results and TOR of EIA for the natural and social environmental aspects by showing on Over Head Projector (OHP). The presentation materials of OHP were submitted to HPO by photocopies.

HPO will submit to the Study Team both the attendance sheets and the suggestion sheets after translation into English in order to prepare the Minutes of Meeting for the Workshop.

4. Schedule on the Further Field Investigation

The Study Team informed HPO of his schedule on the further Field Investigations as shown in Annex-2. The 3rd Field Investigation will start on February 2, 1999 for 24 days.

5. Proposal for the 2nd Workshop Schedule and the 4th Field Investigation

The Study Team proposed the time schedule for the 2nd Workshop as shown in Annex-3 based on the discussion results at the meeting for reviewing on the 1st Workshop held at the Lane-Xane Hotel on November 27, 1998. At the 2nd Workshop, around 150 participants will be invited to the conference hall at Pakxane. This schedule was also informed to the all participants at the 1st Workshop by HPO. Tentative program for the 2nd Workshop is as shown below:

Date	A.M.	P.M.
1st day	VTE→Pakxane	Presentation by S/Team (1)
2nd day	Presentation by S/Team (2)	Group Discussion (1)
3rd day	Group Discussion (2)	Reporting

6. Subletting Environmental Assessment Survey to Local Consultant

The Study Team made a contract with STS Consultants on December 1, 1998 after the contract discussion held on November 30, 1998 as shown below: The kick-off meeting will be held on December 4, 1998.

No.	Items	Description
1.	Name	STS Consultants
2.	Representative	Chairman : Mr.Choung PHANRAJSAVONG
3.	Work Period	From December 1, 1998 to September 30, 1999 for 10 months
4.	Contract Discussion	14:00-17:00, November 30, 1998 at HPO meetingroom

7. Work Schedule of Further 2nd Field Investigation

The members of the Study Team will execute their field investigations as shown below:

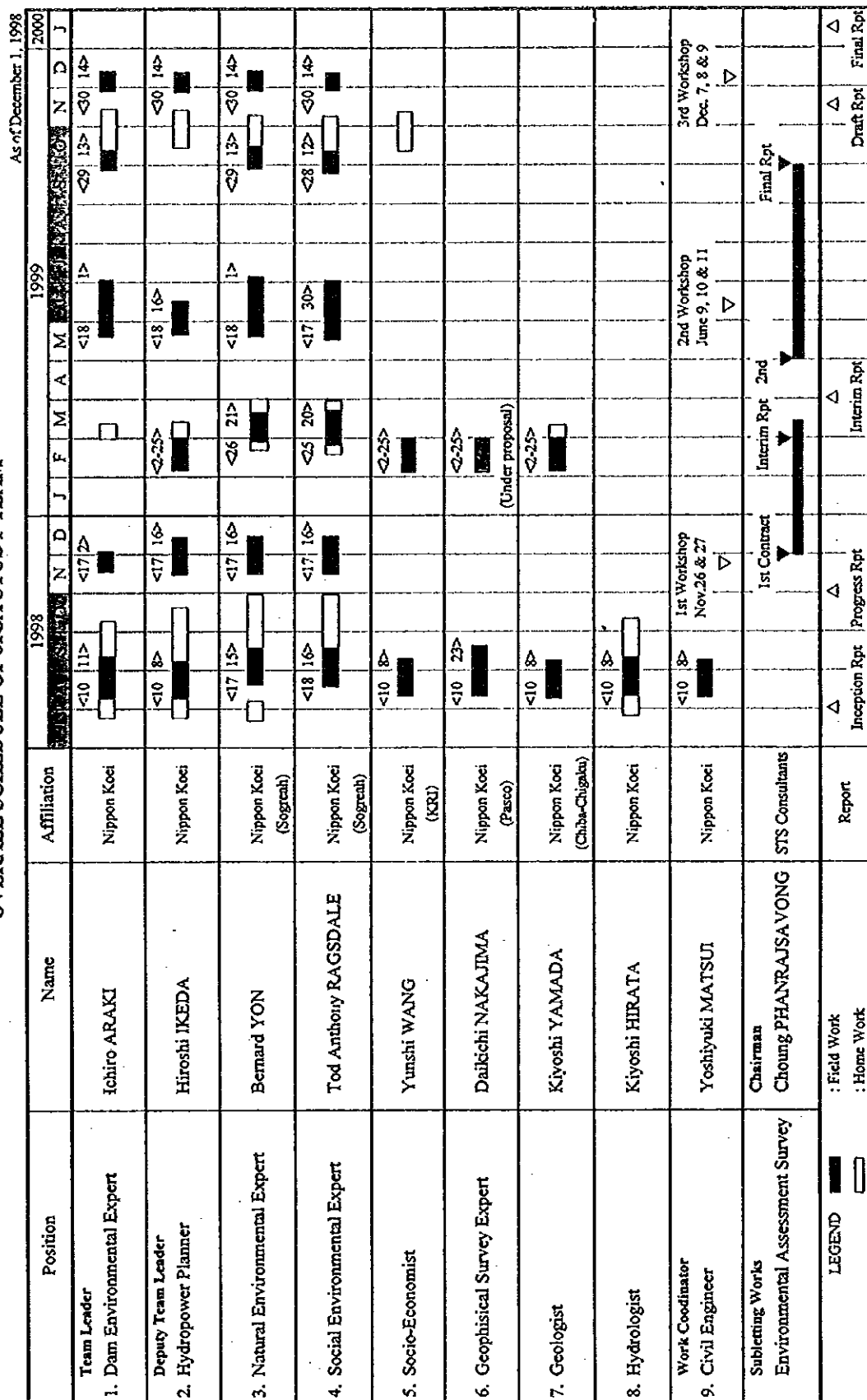
Date (1998)	Mr. Ikeda	Messes. Yon & Ragsdale
Dec.01 (Tue.)	Contract Sign, Leave VTE for Japan (Mr. Araki), Data Collection	
Dec.02 (Wed.)	National Holiday	
Dec.03 (Thu.)	Data Collection	
Dec.04 (Fri.)	Kick-off Meeting with STS Consultants	
Dec.05 (Sat.)	Data Collection	
Dec.06 (Sun.)	Holiday	
Dec.07 (Mon.)	Site Reconnaissance to Pakxan and B.Hatkham & B.Tafua.	Site Reconnaissance to Borikhamxai Special District & Thavian District.
Dec.08 (Tue.)		
Dec.09 (Wed.)		
Dec.10 (Thu.)		
Dec.11 (Fri.)		
Dec.12 (Sat.)	Data Collection	
Dec.13 (Sun.)	Holiday	
Dec.14 (Mon.)	Presentation Meeting with MIH	
Dec.15 (Tue.)	VTE→BKK	
Dec.16 (Wed.)	BKK→TYO	BKK→France

ANNEX - 1 Actual Program of 1st Workshop

First Day (November 26, Thursday, 1998)			
No.	Time	Program	Presented By
1.	8:30 - 9:25	Registration	HPO/MIH staff
2.	9:25 - 9:30	Time schedule of Workshop, Introduction of : ① Chairmen, ②E/A Committee & JICA member, ③JICA Study Team	Facilitators
3.	9:30 - 9:40	Opening Speech	Vice-Minister of MIH
4.	9:40 - 9:50	General description of Power Policy in Lao PDR	HPO (Mr.Somboune)
5.	9:50 - 10:00	JICA's Policy for the Project	JICA (Mr.Nagata)
6.	10:00 - 10:30	Morning Coffee Break	Coffee service
7.	10:30 - 11:10	General Presentation of : ①Project general description, ②General description of Study, ③Basic approach of Study	JICA S/Team (Mr.Araki)
8.	11:10 - 11:30	Presentation of Hydropower plan on ①Pre-F/S scheme and ②Alternative study results	JICA S/Team (Mr.Ikeda)
9.	11:30 - 13:30	Lunch Break	Lunch service
10.	13:30 - 14:10	Presentation of Natural environmental aspects on ①IEE results and ②Execution plan for EIA	JICA S/Team (Dr.Yon)
11.	14:00 - 14:40	Presentation of Social environmental aspects on ①IEE results and ②Execution plan for EIA	JICA S/Team (Dr.Ragsdale)
12.	14:40 - 14:50	General Comments of by Environmental Assessment Committee (EAC)	Facilitator of EAC (Mr.Adachi)
13.	14:50 - 15:30	Afternoon Coffee Break	Coffee service
14.	15:30 - 16:30	General Discussion / Distribution of Suggestion Sheets	Facilitators

Second Day (November 27, Friday, 1998)			
No.	Time	Program	Presented By
1.	8:30 - 9:30	Registration & Receipt of Suggestions Sheets	HPO/MIH staff
2.	9:30 - 9:40	Proposal on Discussion Items of Sub-sections	JICA S/Team
3.	9:40 - 9:50	Establishment of Discussion Items of Sub-sections	Facilitators
4.	9:50 - 10:30	Morning Coffee Break	Coffee service
5.	10:30 - 12:00	Detailed Discussion on each Items (I)	Facilitators
6.	12:00 - 13:30	Lunch Break	Lunch service
7.	13:30 - 15:00	Detailed Discussion on each Items (II)	Facilitators
8.	15:00 - 15:30	Afternoon Coffee Break	Coffee service
9.	15:30 - 16:00	General Answers to Suggestions & Comments	HPO, JICA S/Team
10.	16:00 - 16:10	Schedule of Next Workshop	HPO (Mr.Somboune)
11.	16:10 - 16:20	Closing Speech	Vice-Minister of MIH
12.	16:20 - 16:50	Break Time	
13.	16:50 - 17:00	Press Conference	JICA, HPO
14.	17:00 - 18:30	Internal Meeting	EAC, JICA, HPO, S/Team
15.	18:30 - 19:00	Break Time	
16.	19:00 - 20:30	Dinner Reception of Workshop for Inception Report	All participants

ANNEX - 2 Tentative Schedule of further Field Investigations

 FEASIBILITY STUDY ON THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
 OVERALL SCHEDULE OF JICA STUDY TEAM


ANNEX – 2 Tentative Schedule of further Field Investigations

FEASIBILITY STUDY ON THE NAM NGIEP-1 HYDROELECTRIC POWER PROJECT
OVERALL SCHEDULE OF JICA STUDY TEAM

Position	Name	Affiliation	As of December 1, 1998											
			1999						2000					
			J	F	M	A	M	J	J	O	N	D	J	
Team Leader														
1. Dam Environmental Expert	Ichiro ARAKI	Nippon Koei	<10 11>	<17 12>			<18 11>	<29 13>	<30 14>					
Deputy Team Leader														
2. Hydropower Planner	Hiroshi IKEDA	Nippon Koei	<10 8>	<17 16>			<18 16>	<29 13>	<30 14>					
3. Natural Environmental Expert	Bernard YON	Nippon Koei (Segreth)	<17 15>	<17 16>			<18 21>	<29 13>	<30 14>					
4. Social Environmental Expert	Tod Anthony RAGSDALE	Nippon Koei (Segreth)	<18 16>	<17 16>			<25 20>	<28 12>	<30 14>					
5. Socio-Economist	Yunshi WANG	Nippon Koei (KRI)	<10 8>				<2 25>							
6. Geophysical Survey Expert	Daikichi NAKAJIMA	Nippon Koei (Pasco)	<10 23>				<2 25> (Under proposal)							
7. Geologist	Kiyoshi YAMADA	Nippon Koei (Chiba-Chigaku)	<10 8>				<2 25>							
8. Hydrologist	Kiyoshi HIRATA	Nippon Koei	<10 8>											
Work Coordinator														
9. Civil Engineer	Yoshiyuki MATSUI	Nippon Koei	<10 8>	1st Workshop Nov. 26 & 27			2nd Workshop June 9, 10 & 11		3rd Workshop Dec. 7, 8 & 9					
Subletting Works														
Environmental Assessment Survey	Chairman Choung PHANRAJSA VONG	STS Consultants		1st Contract			Interim Rpt. 2nd		Final Rpt					
LEGEND														
			△	△	△	△	△	△	△	△	△	△	△	
			□	□	□	□	□	□	□	□	□	□	□	
			○	○	○	○	○	○	○	○	○	○	○	

ANNEX - 3

TENTATIVE TIME SCHEDULE

OF

2nd WORKSHOP AND 4th FIELD INVESTIGATION

No.	Date (1999)	Events	Remarks
0	May 17 (Mo)	-	JICA Study Team (Social Environmentalist)
1	May 18 (Tu)	TYO→BKK	JICA Study Team (Other 3 members)
2	May 19 (We)	BKK→VTE	
3	May 20 (Th)		
4	May 21 (Fr)	Presentation of Interim Report	
5	May 22 (Sa)		
6	May 23 (Su)	Holiday	
7	May 24 (Mo)		
8	May 25 (Tu)		
9	May 26 (We)		
10	May 27 (Th)		
11	May 28 (Fr)		
12	May 29 (Sa)		
13	May 30 (Su)	Holiday	
14	May 31 (Mo)		
15	June 01 (Tu)		
16	June 02 (We)		
17	June 03 (Th)		
18	June 04 (Fr)	Environmental Committee (1st day)	Presentation by Study Team
19	June 05 (Sa)	Environmental Committee (2nd day)	Discussion inside
20	June 06 (Su)	Holiday	
21	June 07 (Mo)	Environmental Committee (3rd day)	Reporting
22	June 08 (Tu)		
23	June 09 (We)	Workshop (1st day)	at Pakxane
24	June 10 (Th)	Workshop (2nd day)	at Pakxane
25	June 11 (Fr)	Workshop (3rd day)	at Pakxane
26	June 12 (Sa)		
27	June 13 (Su)	Holiday	
28	June 14 (Mo)		
29	June 15 (Tu)	VTE→BKK	Hydropower Planner only
30	June 16 (We)	BKK→TYO	
31	June 17 (Th)		
32	June 18 (Fr)		
33	June 19 (Sa)		
34	June 20 (Su)	Holiday	
35	June 21 (Mo)		
36	June 22 (Tu)		
37	June 23 (We)		
38	June 24 (Th)		
39	June 25 (Fr)		
40	June 26 (Sa)		
41	June 27 (Su)	Holiday	
42	June 28 (Mo)	Meeting with MIH	
43	June 29 (Tu)	VTE→BKK	Social Environmentalist only
44	June 30 (We)	VTE→BKK	Other 2 members
45	July 1 (Th)	BKK→TYO	

1. MINUTES AND MEMORANDUM FOR FIELD
INVESTIGATIONS

1.4 MEMORANDUM FOR 3RD FIELD INVESTIGATION

**FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC**

**MEMORANDUM
ON
THIRD FIELD INVESTIGATION WORKS**

The JICA Study Team for the Feasibility Study on the Nam Ngiep-I Hydroelectric Power Project (hereinafter called as "the Study Team") entrusted by the Japan International Cooperation Agency (hereinafter called as "JICA") and represented by Mr. Ichiro ARAKI the Team Leader had a series of discussions in respect of the 3rd Field Investigation Work Results, with the authorities concerned of the Hydropower Office (hereinafter called as "HPO") of the Department of Electricity under the Ministry of Industry and Handicrafts (hereinafter called as "MIH") represented by Mr. Somboune MANOLOM Deputy Director of the Department of Electricity on February 19 and March 12 & 19, 1999 as shown below. All the results of the discussions mutually confirmed are compiled hereunder and in the Annexes as per attached.

No.	Date	Agenda
1.	February 19	Presentation Meeting on Progress of Investigation Results
2.	March 12	Meeting for 1st Site Workshop
3.	March 20	Meeting for Reviewing of 1st Site Workshop

1. 3rd Mission of 1st Group

The Study Team of Mr. H. Ikeda (Hydropower Planner), Mr. M. Asai (Survey Engineer), Mr. K. Yamad (Geologist) and Mr. Y. Wang (Socio-Economist) arrived at Vientiane on February 3, 1999 and left Vientiane on February 24, 1999. During the period the following works were carried out:

No.	Name	Position	Works
1.	Mr. H. Ikeda	Hydropower Planner	Preliminary design, Reservoir operation of re-regulation dam, Site visit to re-regulation dam.
2.	M. Asai	Survey Engineer	Traverse & cross section survey, Leveling survey at the Thaviang District.
3.	Mr. K. Yamad	Geologist	Sit visit to main and re-regulation dams, Material survey, Modification geological maps.
4.	Mr. Y. Wang	Socio-Economist)	Data collection from HPO, W/Bank & EDL, Financial Modeling.

2. 3rd Mission of 2nd Group

The Study Team of Messes. B. Yon (Natural Environmentalist) and Ragsdale (Social Environmentalist) arrived at Vientiane on February 27, 1999 and will leave Vientiane on March 24/25, 1999. Mr. I. Araki arrived at Vientiane on March 12, 1999 and will leave Vientiane on March 20, 1999. During the period, the Study Team conducted the 1st Site Workshops at the Thaviang and Hon Districts following the program and summary listed in Annex-1. The Study Team mainly presented (i) general description of JICA & the Study of the Project, (ii) background & possible future of the Project, (iii) hydropower plan with alternatives, (iv) issues of reservoir area, downstream area and (v) issues of dam construction & potential Socio-economic benefits generated by showing on posters. HPO will submit to the Study Team both the attendance sheets and the suggestion sheets after translation into English in order to prepare the Minutes of Meeting for the Site Workshop.

On the other hand, the Study Team of Environmentalists reviewed the interim report, which submitted by the local sub-contractor (STS Consultants) and prepared their interpretative report.

3. Schedule on the Further Field Investigation

The Study Team informed HPO of his schedule on the further Field Investigations as shown below:

Mission	Period		Study Team	Events
4th mission	May 18 - July 9	53 days	Araki, Ikeda, Yon & Ragsdale	2nd Workshop
5th mission	Sep.29 - Oct.13	15 days	Araki, Yon & Ragsdale	Review of EIA report
6th mission	Nov.21 - Dec.20	30 days	Araki, Ikeda, Yon & Ragsdale	3rd Workshop

The 4th Field Investigation to be started on May 18, 1999 for 53 days is listed in details on Annex-2 with the tentative schedule of both the General and Site Workshops.

However, as the Engineering Agreement between JICA and Nippon Koei will be conducted in late April 1999, these schedules are subject to change due to the conditions of the Agreement.

4. Flow Discharge Observation

The Study Team proposed the periodical flow discharge observation with the following procedures:

Items	Procedure	Remarks
Period	Once a month at each station	at Nam Ngiep and Nam Xao rivers
Cost	3-day rent-a-car (One 4WD car), 2 person-3days allowance	To be reimbursed by S/Team
Data collection	Received from villagers and payment for employment	To be reimbursed by S/Team
Requirements	Taking photo	Water level, Measuring velocity

5. Work Schedule of Further 3rd Field Investigation

The members of the Study Team will execute their field investigations as shown below:

Date (1999)	Mr. Yon	Mr. Ragsdale
Mar.20 (Sat.)	Leave VTE for Japan (Mr. Araki), Report preparation	
Mar.21 (Sun.)	Holiday	
Mar.22 (Mon.)	Report preparation	
Mar.23 (Tue.)	Report preparation	
Mar.24 (Wed.)	Report preparation	VTE→BKK
Mar.25 (Thu.)	VTE→BKK	BKK→USA
Mar.26 (Fri.)	BKK→France	-

ANNEX – 1 Actual Program of 1st Site Workshops

(i) Places (both in Xaisouphone Special Zone)

Date	Name of Village	Place	Representative
Mar.16	B.Dong in Thaviang District (U/S of Reservoir)	Public building	Main village in 12
Mar.17	B.Sopyouk in Hom District (D/S of Reservoir)	Village meeting place	Main village in 4

(ii) Time Schedule of Workshop including Preparatory Work

No.	Date	Events	Remarks
1.	Mar.08 (Mon)	VTE→XSB by Car for Preparatory team of HPO	Stay at XSB
2.	Mar.09 (Tue)	XSB→SYK by Car	Stay at SYK
3.	Mar.10 (Wed)	SYK→XSB by Car	Stay at XSB
4.	Mar.11 (Thu)	XSB→TVG by Car	Stay at TVG
5.	Mar.12 (Fri)	Workshop Preparation	Stay at TVG
6.	Mar.13 (Sat)	Workshop Preparation	Stay at TVG
7.	Mar.14 (Sun)	Workshop Preparation	Stay at TVG
8.	Mar.15 (Mon)	VTE→XSB by Helicopter	Stay at XSB
9.	Mar.16 (Tue)	XSB→TVG by Heli, Workshop at TVG, TVG→XSB by Heli, TVG→XSB by Car	Stay at XSB
10.	Mar.17 (Wed)	XSB→SYK by Heli, Workshop at SYK, SYK→VTE by Heli, SYK→XSB by Heli and XSB→VTE by Car	Stay at VTE

Note; VTE:Vientiane, TVG:Thaviang District(B.Dong), XSB:Xaisouphone, SYK:B.Sopyouk

(iii) Participants

From Lao Government in Vientiane

No.	Name	Position	Mar.16	Mar.17
1.	Mr. Somboune	Deputy Director, HPO	0	0
2.	Mr. Saynavat	STENO	0	0
3.	Mr. Chansaveng	Counterpart, HPO	0	0
4.	Mr. Semkhan	Counterpart, HPO	0	0
5.	Mr. Bouathep	Counterpart, HPO	0	0
6.	Mr. Sanhya	Counterpart, HPO	0	0

From JICA, Study Team & Others in Vientiane

No.	Name	Position	Mar.16	Mar.17
1.	Mr. M. Masaki	Project Formulation Advisor, JICA/Laos Office	X	0
2.	Mr. Y. Tada	Project Formulation Advisor, JICA/Laos Office	X	0
3.	Mr. Sophonh K.	Programme Officer, JICA/Laos Office	X	0
4.	Mr. H. Murashige	JICA Expert, HPO	X	0
5.	Mr. I. Araki	Team Leader, Study Team	0	0
6.	Mr. B. Yon	Natural Environmental Expert, Study Team	0	0
7.	Mr. T. Ragsdale	Social Environmental Expert, Study Team	0	0
8.	Mr. Michel	Facilitator (Canadian)	0	0
9.	Mr. Detmahinh	Interpreter (Laotian)	0	0
10.	Mr. Sysavit	Engineer of STS Consultants	0	0
11.	Mr. Khantam	Engineer of STS Consultants	0	0

From Local Government

No.	Name	Position	Mar.16	Mar.17
Xaisomboun Province (Special Zone)				
1.	Mr. Siboumtham	Deputy Governor of Xaisomboun S/Zone	O	O
2.	Mr. Singkham	Head of Department of Industry & H.Craft	O	O
3.	Mr. Kalaket	Engineer of DIH	O	O
Thaviang District				
1.	Mr. Khamvaen	Head of Focal Site	O	X
2.	Mr. Bouneing	Deputy Head of Focal Site	O	X
Hom District				
1.	Mr. Suator	Deputy District Governor	X	O

From Local Villages

No.	Name	Position	Mar.16	Mar.17
Villagers of Thaviang District (Total 48 peoples)				
1.	B.Xiengkhone	6 peoples	O	X
2.	B.Viengthong	3 peoples	O	X
3.	B.Naxay	4 peoples	O	X
4.	B.Naxong	4 peoples	O	X
5.	B.Nahong	4 peoples	O	X
6.	B.Phonhom	2 peoples	O	X
7.	B.Phonyeng	5 peoples	O	X
8.	B.Dong	6 peoples	O	X
9.	B.Phiangta	6 peoples	O	X
10.	B.Hatsamkhone	2 peoples	O	X
11.	B.Pou & B.Naphang	4 peoples	O	X
12.	B.Nakang	2 peoples	O	X
Villagers of Hom District (Total 23 peoples)				
1.	B.Housypamom	4 peoples	X	O
2.	B.Sopphouh	2 peoples	X	O
3.	B.Namyouk	3 peoples	X	O
4.	B.Sopyouk	14 peoples	X	O

(iv) Actual Program at Thaviang District (March 16, 1999)

No.	From	To	Agenda	Contents	Presenter/Staff
	08:40	09:20	Preparation	Panel Setting	HPO Staff
1.	09:20	09:25	Introduct. of Participants	-	Facilitator
2.	09:25	09:30	Opening Speech	Power policy in Lao	HPO, Mr.Somboune
3.	09:30	09:40	Introduction of JICA	JICA's policy & Study	S/Team, Mr.Araki
4.	09:40	09:50	Scene 1	Orientation of Workshop	Facilitator
5.	09:50	09:55	Scene 2	Background of Project	S/Team, Mr.Araki
6.	09:55	10:10	Scene 3	Hydropower	S/Team, Mr.Yon
7.	10:10	10:25	Discussion (1)		Facilitator
8.	10:25	10:40	Break		
9.	10:40	11:00	Scene 4 & 5	Issues of reservoir	S/Team, Mr.Ragsdale
10.	11:00	11:10	Discussion (2)		Facilitator
11.	11:10	11:25	Scene 6	Issues of Downstream	S/Team, Mr.Yon
12.	11:25	11:45	Discussion (3)		Facilitator
13.	11:45	12:00	Scene 7 & 8	Construction & Benefits	S/Team, Mr.Ragsdale
14.	12:00	12:25	Discussion (4)		Facilitator
15.	12:25	12:40	Closing Speech	Deputy Governor of Xaisonboune S/Zone	Mr. Siboumtham
16.	13:00	13:30	Lunch		

(v) Actual Program at Hom District (March 17, 1999)

No.	From	To	Agenda	Contents	Presenter/Staff
	08:40	09:15	Preparation	Panel Setting	HPO Staff
1.	09:15	09:20	Scene 1	Orientation of Workshop	Facilitator
2.	09:20	09:25	Opening Speech	Cooperation of Study	Deputy Governor of Xaisonboune S/Zone, Mr. Siboumtham
3.	09:25	09:30	Opening Speech	Power policy in Lao	HPO, Mr.Somboune
4.	09:30	09:40	Introduction of JICA	JICA's policy & Study	S/Team, Mr.Araki
5.	09:40	09:50	Scene 2	Background of Project	S/Team, Mr.Araki
6.	09:50	10:00	Scene 3	Hydropower	S/Team, Mr.Yon
7.	10:00	10:05	Discussion (1)		Facilitator
8.	10:05	10:25	Scene 4 & 5	Issues of reservoir	S/Team, Mr.Ragsdale
9.	10:25	10:40	Discussion (2)		Facilitator
10.	10:40	10:50	Break		
11.	10:50	11:10	Discussion (3)		Facilitator
12.	11:10	11:20	Scene 6	Issues of Downstream	S/Team, Mr.Yon
13.	11:20	11:25	Scene 7	Issues of Construction	S/Team, Mr.Yon
14.	11:25	11:35	Scene 8	Issues of Benefits	S/Team, Mr.Ragsdale
15.	11:35	11:40	Discussion (4)		Facilitator
16.	11:40	11:45	Closing Speech	Thanks for participants	HPO, Mr.Somboune
17.	11:45	11:50	Closing Speech	Thanks for participants	S/Team, Mr.Araki
18.	11:50	12:00	Closing Speech	Thanks for participants	Deputy Governor of Xaisonboune S/Zone, Mr. Siboumtham
19.	12:20	13:30	Lunch		

ANNEX - 2

TENTATIVE TIME SCHEDULE

OF

2nd General & Site WORKSHOPS AND 4th FIELD INVESTIGATION

No.	Date (1999)	Events	Remarks
0	May 17 (Mo)		Mr. Ragsdale (Washington→)
1	May 18 (Tu)	Messes. Araki & Ikeda (TYO→BKK)	Mr. Ragsdale (→Grenoble)
2	May 19 (We)	Messes. Araki & Ikeda (BKK→VTE)	Messes. Yon & Ragsdale :Home Work at Sogreah
3	May 20 (Th)	Presentation of Interim Report	
4	May 21 (Fr)		
5	May 22 (Sa)		
6	May 23 (Su)	Holiday	
7	May 24 (Mo)		
8	May 25 (Tu)		Messes. Yon & Ragsdale (Grenoble→BKK)
9	May 26 (We)		Messes. Yon & Ragsdale (BKK→VTE)
10	May 27 (Th)	Meeting with MIH	
11	May 28 (Fr)		
12	May 29 (Sa)		
13	May 30 (Su)	Holiday	
14	May 31 (Mo)		
15	June 01 (Tu)		
16	June 02 (We)		
17	June 03 (Th)		
18	June 04 (Fr)	Environmental Committee (1st day)	Presentation by Study Team
19	June 05 (Sa)	Environmental Committee (2nd day)	Discussion inside
20	June 06 (Su)	Holiday	
21	June 07 (Mo)	Environmental Committee (3rd day)	Reporting
22	June 08 (Tu)		
23	June 09 (We)	2nd General Workshop (1st day)	at Pakxan (Vientiane→Pakxan)
24	June 10 (Th)	2nd General Workshop (2nd day)	at Pakxan
25	June 11 (Fr)	2nd General Workshop (3rd day)	at Pakxan (Pakxan→Vientiane)
26	June 12 (Sa)		
27	June 13 (Su)	Holiday	
28	June 14 (Mo)		
29	June 15 (Tu)	Mr.Ikeda (VTE→BKK)	
30	June 16 (We)	Mr.Ikeda (BKK→TYO)	z
31	June 17 (Th)		
32	June 18 (Fr)		
33	June 19 (Sa)		
34	June 20 (Su)	Holiday	
35	June 21 (Mo)		
36	June 22 (Tu)		
37	June 23 (We)		Vientiane→Pakxan
38	June 24 (Th)	2nd Site Workshop at B.Mounmai	Pakxan→B.Mounmai→ Pakxan
39	June 25 (Fr)		Pakxan→Vientiane
40	June 26 (Sa)		
41	June 27 (Su)	Holiday	
42	June 28 (Mo)		
43	June 29 (Tu)		
44	June 30 (We)		
45	July 01 (Th)		
46	July 02 (Fr)		
47	July 03 (Sa)		
48	July 04 (Su)	Holiday	
49	July 05 (Mo)		
50	July 06 (Tu)	Meeting with MIH	
51	July 07 (We)		Mr. Ragsdale (VTE→BKK)
52	July 08 (Th)	Messes Araki & Yon (VTE→BKK)	Mr. Ragsdale (BKK→Washington)
53	July 09 (Fr)	Mr.Araki (BKK→TYO), Mr.Yon(→GLNB)	-

**1. MINUTES AND MEMORANDUM FOR FIELD
INVESTIGATIONS**

1.5 MEMORANDUM FOR 4TH FIELD INVESTIGATION

**FEASIBILITY STUDY
ON
THE NAM NGIEP-I HYDROELECTRIC POWER PROJECT
IN
LAO PEOPLE'S DEMOCRATIC REPUBLIC**

**MEMORANDUM
ON
FOURTH FIELD INVESTIGATION WORKS**

The JICA Study Team for the Feasibility Study on the Nam Ngiep-I Hydroelectric Power Project (hereinafter called as "the Study Team") entrusted by the Japan International Cooperation Agency (hereinafter called as "JICA") and represented by Mr. Ichiro ARAKI the Team Leader had a series of discussions in respect of the 4th Field Investigation Work Results, with the authorities concerned of the Hydropower Office (hereinafter called as "HPO") of the Department of Electricity under the Ministry of Industry and Handicrafts (hereinafter called as "MIH") represented by Mr. Somboune MANOLOM Deputy Director of the Department of Electricity from May 19 to July 8 as shown below. All the results of the discussions mutually confirmed are compiled hereunder and in the Annexes as per attached.

No.	Date	Agenda
1.	May 27	Presentation Meeting on Interim Report
2.	June 4-8	2nd Environmental Assessment Committee Meeting
3.	June 9-11	2nd General Workshop at Pakxan

1. Submission of Interim Report

The Study Team submitted to HPO of the Department of Electricity, MIH, twenty (20) copies of the Interim Report with (i) the Interpretative Interim Report on EIA Survey, (ii) Sub-Contractor's Interim Report on EIA Survey, and (iii) Hydrological & Meteorological Observation Results. HPO reviewed the above four (4) reports and stated that they had no objection basically for the Study Team to report the study results as mentioned in the Interim Report. However, HPO pointed out some mistakes in the reports and commented in their papers of requirements for the further report.

2. Major Activities at 4th Field Investigation

The four (4) members of Study Team arrived at Vientiane on May 19, 1999 at first and will leave Vientiane on July 8, 1999 at latest as shown below:

No.	Name	Position	Arrival	Departure
1.	I. Araki	Team Leader	May 19	July 08
2.	H. Ikeda	Hydropower Planner	May 19	June 15
3.	B. Yon	Natural Environmentalist	May 26	July 08
4.	T. Ragsdale	Social Environmentalist	May 26	July 07

During the period, the Study Team attended the 2nd EAC meeting and conducted mainly

2nd General Workshop at Pakxan and the 2nd Site Workshop at B.Somscuan (Moungmai) on schedule.

2.1 2nd Environmental Assessment Committee Meeting (Photo-1)

The 2nd Environmental Assessment Committee Meeting was conducted by JICA on June 4-8, 1999 prior to the 2nd General Workshop. The Laotian two members of Messes. Khamphaeng Ketavong (Deputy Director, Institute for Cultural Researches) and Bounthong Xaysida (Deputy Director, Department of Forestry) were replaced by Ms.Thongsy Bounthipangno (Lao Front for National Construction) and Mr.Vean Vongphet (NBCA & Water Resource) at the 2nd EAC meeting, respectively.

Moreover, a new member of Mr.Songhoua Vangvongxay (Prime Minister Office, Rural Development) was jointed as the permanent member for resettlement issues at this EAC meeting.

The summary of EAC meeting including member list, attendance list and agenda of meeting is shown in Annex-1 and the minutes of discussion are shown in Annex-2. The Study Team's comments on the EAC's suggestions are under preparation.

2.2 2nd General Workshop (Photo-2)

The second General Workshop for Interim Report was held as scheduled at the national level with about 140 participants at Pakxan in Bolikhamsay Province on June 9-11, 1999 for 3 days.

The Agenda/Program is shown in Annex-3. Attendance Lists and Minutes of discussions are shown in Annex-4 and Annex-5, respectively. The Study Team's comments on the suggestion sheets for the participants are under preparation.

2.3 2nd Site Workshop (Photo-3)

The site level consultation process was organized on June 24, 1999 as the second Site Workshop at B.Somseuan (Muangmai), Bolikhan District of Bolikhamsay Province, attended by 43 villagers from the 14 villages along downstream reach of the Nam Ngiep River.

The Summary of Site Workshop including agenda and attendance list is shown in Annex-6. The Minutes of discussions are shown in Annex-7. The Study Team's comments on the suggestion sheets for the villagers are under preparation.

2.4 Lecture by Study Team (Photo-4)

The Hydropower Planner of Study Team, Mr. H. Ikeda made a lecture of "General Work Procedure for Implementation of Dam Type Hydropower Project" for 13 engineers of MIH/HPO on June 14, 1999 at MIH/HPO's request with the contents as follows:

(i) Basic-Hydrological Data Collection & Analysis, (ii) Feasibility Study, (iii) General

Layout Study, (iv) Design Criteria, (v) Individual Component Design, (vi) Tender Documentation, (vii) Construction Supervision.

2.5 Site Visit to Nam Theun 2 Area and Theun Hinboun HEPP (Photos-5 & 6)

The Team Leader of Study Team, Mr. I. Araki made a site visit to the planned NT2 HEPP and the operating TH HEPP on June 1-3, 1999 under guidance of HPO staff, Messes. Voradeth and Changsaveng with following itinerary:

No.	Date	Time Schedule	Visiting Sites
1.	July 1 (Thu.)	8:30 VTE - 12:00 Thakhek - 14:00 Mahaxai 16:00 Nakai - 19:30 Thakhek	Briefing at NTEC, Plywood & chip factory, P/S site, Resettlement, Logging
2.	July 2 (Fri.)	8:00 Thakhek - 10:00 THPC - 14:30 Dam site - 17:30 Laksao	Briefing at THPC office, Powerhouse, R/R dam, Resettlement, Intake dam
3.	July 3 (Sat.)	8:00 Laksao - 9:30 Vietnam border - 11:00 Laksao - 18:00 VTE	U/S of dam site, Nam Pao HEPP, The border

3. Requirements by EAC and JICA for the Further Field Investigation/Report

The JICA Study Team was required to carry out the further study by the members of EAC and JICA through both the EAC meeting and the general Workshop taking into consideration of the following items:

(i) Early Submission of 1st Draft Final Report

The 1st draft final report will be submitted to both MIH/HPO and JICA by the end of September 1999 as shown in Annex-8.

(ii) Review of Hydrological Data

The hydrological data to be used for the final reservoir operation will be studied in more details among the several series of data (1) Pre-F/S Report, (2) NT2 Alternative Study, (3) MRC's Report and (4) Lahmeyer's Report.

(iii) Field Survey of Respective Resettlement Area

The possible resettlement sites in (1) Xiengkhuang Province, (2) Bolokhan District of Bolikhamsay Province and (3) Hom District of Saysomboun Special Zone will be surveyed by the existing topographic maps and aero-photographs through meeting with the Central and Provincial Rural Development Committees (CRD).

(iv) Gender Issues

The specialist for gender issues will be employed for the 3rd Site Workshop scheduled in mid December 1999. The specialist, Ms. Kesone SAYASANE was attended at the 2nd Site Workshop at B.Somseuan on June 24, 1999 as an observer.

4. Schedule on the Further Field Investigation

The Study Team informed HPO of his schedule on the further Field Investigations as shown below:

Mission	Period		Study Team	Events
5th	Sep.29 - Oct.13	15 days	Araki, Yon & Ragsdale	Review of EIA report
6th	Nov.21 - Dec.20	30 days	Araki, Ikeda, Yon & Ragsdale	3rd EAC & Workshops

The 5th Field Investigation to be started on September 29, 1999 for 15 days is listed in details on Annex-9 with the tentative schedule of both the General and Site Workshops.

5. Flow Discharge Observation

The Study Team proposed the monthly flow discharge observation with the following procedures:

Items	Procedure	Remarks
Period	Once a month at each station	at Nam Ngiep and Nam Xao rivers
Cost	3-day rent-a-car (One 4WD car), 3 person-3days allowance	To be reimbursed by S/Team
Data Collection	Received from villagers and payment for employment	To be reimbursed by S/Team
Requirements	Taking photo	Water level, Measuring velocity
Required Date	for July for August for September for October for November for December	July 29(Thu.)-31(Sat.) August 26(Thu.)-28(Sat.) October 07(Thu.)-09(Sat.) October 28(Thu.)-30(Sat.) November 25(Thu.)-27(Sat.) December 28(Tue.)-30(Thu.)

6. JICA Counterpart Training

The Study Team accepted the 2nd year JICA Counterpart Training in Japan as shown below:

No.	Items	Descriptions
1.	Trainee	Mr. Seumkhan
2.	Training Period	26 days
		starting on October 18, 1999 (Mon.)
		ending on November 19, 1999 (Fri.)

The Nam Ngiep-I Hydroelectric Power Project

MEMORANDUM OF 4TH FIELD INVESTIGATION WORKS

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ANNEX – 1 Summary of 2nd EAC Meeting

(i) Member List of Environmental Assessment-Committee

Member	Specialized Subject	: Geology
	Name (Nationality/Age/Sex)	: Daiei INOUE (Japanese, 52, Male)
	Firm/Position	: Director, General Research Institute of Electric Power Industry
Member	Specialized Subject	: Natural Environment
	Name (Nationality/Age/Sex)	: Donald L Graybill (USA, 55, Male)
	Firm/Position	: President, GCP International Inc.
Member	Specialized Subject	: Social Environment
	Name (Nationality/Age/Sex)	: Ms.Thongsy Bounthipangno (Lao PDR, 40, Female)
	Firm/Position	: Lao Front for National Construction
Member	Specialized Subject	: Natural Environment
	Name (Nationality/Age/Sex)	: Mr.Vean Vongphet (Lao PDR, 42, Male)
	Firm/Position	: (NBCA & Water Resource)
Member	Specialized Subject	: Resettlement Planner
	Name (Nationality/Age/Sex)	: Mr. Songhoua Vangvongxay (Lao PDR, 53, Male)
	Firm/Position	: Prime Minister Office, Rural Development
Adviser	Specialized Subject	: Hydropower Plan
	Name (Nationality/Age/Sex)	: Hayao ADACHI (Japanese, 62, Male)
	Firm/Position	: Japan International Cooperation Agency

(ii) Attendance List of Environmental Assessment Committee

No.	Position	No. of Attendance	Name (without title)
1.	Counterpart (MIH)	4	Somboune, Voradeth, Chansaveng, Sisoukham
2.	EAC	5	Inoue, Graybill, Thongsy, Vean, Songhoua
3.	JICA (Tokyo)	2	Adachi, Kobayashi
4.	JICA (Lao PDR)	3	Masaki, Murashige, Sophonh
5.	Study Team	4	Araki, Ikeda, Yon, Ragsdale
6.	Others (Observer)	2	Facilitator & Interpreter for Workshop
	Total	20	

(iii) Execution Programs of Environmental Assessment Committee

Date	Start	Finish	Subject	In-Charge
Jun. 04 (Fri.) (1st Day)	09:00	- 09:20	Opening speech (Introduction, Opening address)	JICA
	09:20	- 09:30	Committee's steering policy	JICA
	09:40	- 14:00	Inception, Progress, IEE reports & Further schedule	Study Team
	14:00	- 15:30	Plan and schedule of General Workshop	Team, HPO
Jun. 07 (Mon.) (2nd Day)	09:00	- 13:30	Advice from Committee members	Committee
	13:30	- 14:30	Discussion	Committee
	14:30	- 17:00	Report preparation by Committee	Committee
Jun. 08 (Tue.) (3rd Day)	09:00	- 16:00	Report preparation by Committee	Committee
	16:00	- 16:30	Presentation by Committee	Committee
	16:30	- 16:45	Discussion on further schedule	Study Team
	16:45	- 17:00	Closing speech	JICA

ANNEX - 2 (1/2) Minute of EAC Meeting**Environmental Assessment Committee Meeting On Nam Ngiep I**

The Committee meeting was held for tree days from June 4 to 8, 1999 in Vientiane. The Committee members are Dr. Donald L. Graybill (natural environment), Ms. Thongsy Bounthipangno (social environment), and Mr. Songhoua Vangvongxay (resettlement). The meeting was coordinated by Mr. Hayao Adachi (JICA Specialist) and Mr. Somboune Manolom (MIH). Main findings are summarized below. The committee's report is attached.

1. since the first committee meeting, progress of the study work has been satisfactory. The team is congratulated for its accomplishments to date in defining project dimensions that are relevant for environmental and social impact assessment, in developing environmental and social baseline information, and in consulting affected population and other stake holders. The committee members are expecting that the further analysis on information would be completed by the final meeting, which is scheduled to be held on December 1999.
2. Dr. Graybill discussed on several environmental factors focussing on resettlement and natural environment. Regarding the resettlement and the interval El.319 - El 332m as a case for cost-benefit analysis, unless the choice is accompanied by further detailed analysis of: (a) the elevation of villages and cultivated land; and (b) cumulative effects, within the zone of elevations, of flood backwater curves and sediment deposition in the reservoir. He emphasized the importance of suitability of resettlement sites and wished to clarify and emphasize the need for the final report to include a clear demonstration that realistic and concrete possibilities actually exist for accomplishing socially acceptable resettlement, to international standards, of all persons affected by the case with the recommended FSL or, by the case with the higher FSL, if the recommendation includes options for FSLs. In this regards, Mr. Somboune has suggested that the resettlement sites nearby the existing villages and future reservoir also should be considered. On natural environment, Dr. Graybill has requested further studies on agricultural inventories, reservoir clearing,

ANNEX - 2 (2/2) Minute of EAC Meeting

water release to the downstream during impounding, the species malaria vectors and parasites and so on. Finally, he suggests that the tentative proposal for "alternative river basin conservation" should be revisited.

3. Dr. Inoue discussed on importance of dam design and construction, explaining the significant dam height, in case of higher FSL, which includes the excavation of river deposits. If the dam height excess more than 200 m, it may be the world record for this type of dam. He also gave his attention to the open cracks in the basement rock at the higher elevation of the left bank, to the existence of muddy rocks, and to alternatives of dam axis, which enables to set up to some alternatives in response to geological and/or topographical conditions. He has concluded to be possible to construct the main dam, re-regulation dam and surrounding structure technically even in the alternative plans among FSL 320 and 360 m.
4. Mr. Adachi has concerned on the plant factors of the power station plan and has suggested that the 8-hour-peaking should be scrutinized as a future extension plan of the power station. In this regards, Dr. Somboune has requested to discuss on domestic use of the energy in relation with the plant factor. Mr. Adachi further discussed on environmental mitigation costs. He has suggested that the contribution of the project to the rural development plan would be essential. He also concerned on uncertainty of river inflow data.
5. Mr. Vonevongphet concerned on several natural environment such as wildlife and habitats, and he has expected the clear explanation of positive and negative impacts before and after the dam construction in the final report.
6. Mrs. Thongsy concerned on resettlement emphasizing the importance of educational campaign to public awareness, psychology of ethnic people, and new settled laces of weather condition, service facilities and new job opportunity.
7. Mr. Song Hoa, as a rural development specialist, concerned on mental factors of people such as family relationship and their neighborhood, heritage of cultivation land. He suggested to get information from local authorities such as the National Front and so on.

ANNEX - 3 Agenda/Program of 2nd General Workshops

ACTUAL PROGRAM

First Day (June 9, Wednesday, 1999)			
No.	Time	Program	Presented By
1.	8:30 - 9:30	Registration at Vientiane	HPO/MIH staff
2.	9:30 - 11:30	Transportation from Vientiane to Pakxan	-
3.	11:30 - 12:00	Accommodation at Pakxan	HPO/MIH staff
4.	12:00 - 13:00	Lunch Time	-
5.	13:00 - 13:30	Registration at Pakxan, Distribution of Suggestion Sheets	HPO/MIH staff
6.	13:30 - 13:40	Introduction of Time schedule & Participants	Facilitator
7.	13:40 - 13:45	Opening Speech (Ministry of Industry & Handicrafts)	Vice-Minister (Mr.Somboune)
8.	13:45 - 13:50	General Speech (JICA/Tokyo)	Director (Mr.Nagata)
9.	13:50 - 14:00	General Speech (Bolikhamsay Province)	Deputy (Mr.Khamphanh)
10.	14:00 - 14:30	Brief Presentation of (i)Project, (ii)Study, (iii)Basic Approach	JICA S/Team (Mr.I.Araki)
11.	14:30 - 15:00	Afternoon Coffee Break	Drink service
12.	15:00 - 15:25	Report on Previous Workshops	JICA S/Team (Mr.I.Araki)
13.	15:25 - 16:30	Presentation of Hydropower plan on (i)Alternative study results and (ii)Economic Analysis	JICA S/Team (Mr.H.Ikeda)
14.	16:30 - 17:20	Detailed Discussion (I)	Facilitator

Second Day (June 10, Thursday, 1999)			
No.	Time	Program	Presented By
1.	8:30 - 9:00	Registration	HPO/MIH staff
2.	9:00 - 10:10	Presentation of Natural envir. aspects on EIA interim results	JICA S/Team (Dr.B.Yon)
3.	10:10 - 10:50	Morning Coffee Break	Coffee service
4.	10:50 - 11:00	Detailed Discussion (II)	Facilitator
5.	11:00 - 12:30	Presentation of Social envir. aspects on EIA interim results	JICA S/Team (Dr.Ragsdale)
6.	12:30 - 14:00	Lunch Break	Lunch service
7.	14:00 - 15:30	Detailed Discussion (III)	JICA S/Team
8.	15:30 - 16:00	Afternoon Coffee Break	Coffee service
9.	16:00 - 17:30	Detailed Discussion (IV)	JICA S/Team
10.	17:30 - 18:30	Official Meeting with Provincial and District Officers	HPO, JICA, EAC, S/Team
11.	18:30 - 19:30	Break Time	-
12.	19:30 - 21:30	Dinner Reception of Workshop for Interim Report	All participants

Third Day (June 11, Friday, 1999)			
No.	Time	Program	Presented By
1.	8:30 - 9:00	Registration & Receipt of Suggestions Sheets	HPO/MIH staff
2.	9:00 - 9:10	Report on Discussion Results about Possible Resettl. Area	JICA S/Team (Mr.I.Araki)
3.	9:10 - 10:40	Detailed Discussion (V)	Facilitator
4.	10:40 - 11:10	Morning Coffee Break	Coffee service
5.	11:10 - 11:45	Supplementary Explanation by HPO	HPO (Mr.Somboune)
6.	11:45 - 11:50	Report on EAC Meeting Results	JICA (Mr. Adachi)
7.	11:50 - 11:55	Schedule of Next Workshop	JICA S/Team (Mr.Araki)
8.	11:55 - 12:10	Closing Speech	Vice-Minister of MIH
9.	12:10 - 12:30	Break Time	-
10.	12:30 - 14:00	Lunch Break	-
11.	14:00 - 16:00	Transportation from Pakxan to Vientiane	All participants

ANNEX – 4 (1/3) Attendance List of 2nd General Workshops (1/3)

I. Chairman

No.	Name	Position	Organization	9th	10th	10th	11th
1.	Mr. Somboun Rasasombath	Vice Minister	Ministry of Industry and Handicraft	0	-	-	0
2.	Mr. Khamphanh Sithidampha	Deputy Governor	Borikhamxay Province	0	0	0	0
3.	Mr. Soukata Vichith	Director	STENO	0	0	0	0
4.	Mr. Douangmisay Likaya	Director	Ministry of Information and Culture	0	0	0	0
5.	Mr. Hayao Adachi	Specialist	JICA/Tokyo	0	0	0	0
6.	Mr. Kuniaki Nagata	Director	JICA/Tokyo	0	0	0	0

II. Central Government

No.	Name	Position	Organization	9th	10th	10th	11th
1.	Mr. Khamla Keophitull	Deputy of	National Assembly	0	0	-	0
2.	Ms. Malayvieng Sakonnyom	Deputy Director	Ministry of Foreign Affair	0	0	0	0
3.	Mr. Bounma	Engineer	Ministry of Labor & Social Welfare	0	0	0	0
4.	Mr. Boualith Khounli	Deputy of Division	Ministry of Finance	0	0	0	0
5.	Mr. Inthapunya	Engineer	Ministry of Justice	0	0	0	0
6.	Mr. Phitthanusone	Deputy of Division	Ministry of Public Health	0	0	0	0
7.	Mr. Khamphachan	Engineer	Ministry of Agriculture & Forestry	0	0	0	0
8.	Mr. Viendvongphet	Chief of Division	Department of Forestry	0	0	0	0
9.	Mr. Eravan	Deputy of Division	Department of Geology & Mining	0	0	0	0
10.	Mr. Viengnakhone	Engineer	Commit for planning Cooperation	0	0	0	0
11.	Mr. Khamrangsi	Engineer	Commit for Planning Cooperation	0	0	0	0
12.	Mr. Kongkham	Engineer	Commit for Planning Cooperation	0	0	0	0
13.	Mr. Phonexay Vilaysak	Engineer	Commit for Investment &	0	0	0	0
14.	Mr. Bounphakan Sisanonh	Deputy of Division	Prime Minister Office	0	0	0	0
15.	Mr. Thongkhoun	Chief of Division	Lao Trade Union	0	0	0	0
16.	Mr. Thavone Vongphosi	Engineer	STENO	0	0	0	0
17.	Mr. Phouvong Onsisaleurm	Engineer	STENO	0	0	0	0
18.	Mr. Chansanouk Kounavong	Engineer	STENO	0	0	0	0
19.	Mr. Chanthi	Head of Division	National Front	0	0	0	0
20.	Mr. Thongsi Bounthiphanyo	Engineer	National Front	0	0	0	0
21.	Ms. Khamla	Deputy Director	Lao Women Union	0	0	0	0
22.	Mr. Xonghoua	Engineer	Center Development	0	0	0	0
23.	Mr. Phalim Daravong	Chief of Division	EDL	0	0	0	0
24.	Mr. Manasine Vongxay	Engineer	EDL	0	0	0	0
25.	Mr. Hitoshi Koyabu	JICA Expert	EDL (JICA)	0	0	0	0
26.	Mr. Soukhan Phongsavath	Deputy Director	MIH	0	0	0	0
27.	Mr. Phetratsadone	Deputy of Division	MIH	0	0	0	0
28.	Mr. Bouathi Soukkaseum	Deputy Director	MIH	0	0	0	0
29.	Mr. Khamsaone	Deputy of Division	MIH	0	0	0	0
30.	Mr. Thongkhan	Engineer	MIH	0	0	0	0
31.	Mr. Somboun Manolom	Deputy Director	MIH, Department of Electricity,	0	0	0	0
32.	Mr. Hiroshi Murashige	JICA Expert	HPO (JICA)	0	0	0	0
33.	Mr. Sisoukhan	Engineer	HPO	0	0	0	0
34.	Mr. Khammanh	Engineer	HPO	0	0	0	0
35.	Mr. Chansaveng	Engineer	HPO	0	0	0	0
36.	Mr. Seumkham	Engineer	HPO	0	0	0	0
37.	Mr. Sanhya	Engineer	HPO	0	0	0	0
38.	Mr. Voladeth Phonekeo	Engineer	HPO	0	0	0	0
39.	Mr. Vitullabundith	Engineer	HPO		0	0	0

ANNEX – 4 (2/3) Attendance List of 2nd General Workshops (2/3)

III. Local Government

No.	Name	Position	Organization	9th	10th	10th	11th
1.	Mr. Boun Tont	Head of Investment	Xiengkhouang Province	0	0	0	0
2.	Mr. Singkham Sivongkham	Head of Division	Saysomboun S/Zone, Industry&Handicraft of	0	0	0	0
3.	Mr. Somsai Chanthamixay	Deputy Secretary	Borikhamsay Province	0	0	0	0
4.	Mr. Phiaxong Xiathuyonghua	Official	Borikhamsay Province	0	0	0	0
5.	Mr. Siengdala	Head of Planning	Borikhamsay Province	0	-	0	0
6.	Mr. Vanvilay	Deputy Director	Borikhamsay Province	0	0	0	0
7.	Mr. Khamkhong Kongvongsa	Engineer	Borikhamsay Province	-	0	0	0
8.	Mr. Bouachan Bounvongsay	Head of Division	Borikhamsay, Industry & Handicraft	0	0	-	0
9.	Mr. Khianmani Inthavong	Official	Borikhamsay, Industry & Handicraft	0	0	-	0
10.	Mr. Khamxing Sayphuvong	Engineer	Borikhamsay, Industry & Handicraft	0	0	0	0
11.	Mr. Thongchantha Minavong	Deputy of Division	Borikhamsay, Communication.	0	0	0	0
12.	Mr. Phichith Sayaphone	Engineer	Borikhamsay, Agriculture & Forestry	0	0	0	-
13.	Ms. Phonesay	Chief	Borikhamsay, Lao Women Union	0	0	0	0
14.	Mr. Souvanthon	Head of Division	Borikhamsay, Inform. & Culture	0	0	0	0
15.	Mr. Khamphet	Head of Unit	Borikhamsay, EDL	0	0	0	-
16.	Mr. Douangsi	Head	Borikhamsay, EDL	-	0	0	0
17.	Mr. Ounchanthavong	Deputy Chief	Borikhamsay, Lao Trade Union	0	0	0	0

IV. Local People

No.	Name	Position	Organization	9th	10th	10th	11th
1.	Mr. Bounhand	Assistance of District	Paxxane District	0	0	0	0
2.	Mr. Bouakeo	National Front	B. Thakokkhene	0	0	0	0
3.	Mr. Keooudon	Head of Village	B. Songkhone	0	0	0	0
4.	Mr. Bounyom	National Front	B. Nam Ngiep	0	0	0	0
5.	Mr. VongPhet Mongkhon	Head of Village	B. Nam Ngiep	0	0	0	0
6.	Mr. Phouvong	National Front	B. Seneoudom	0	0	0	0
7.	Mr. Dao	Head of Village	B. Seneoudom	0	0	0	0
8.	Mr. Khammay Lovanxay	Head of Village	B. NamTek	0	0	0	0
9.	Mr. Mayphanh	Head of Village	B. Phonesi	0	0	0	0
10.	Mr. Bounkham	Head of Village	B. Thakokkhand	0	0	0	0
11.	Mr. Khamxay	Head of District	Borikhane District	0	0	0	0
12.	Mr. Bounkong	Head of Village	B. Somsieune (Muangmai)	0	0	0	0
13.	Mr. Phouvieng Piakeo	Villager	B. Hatheun (Hatkhamb)	0	0	0	0
14.	Mr. Bounchan	National Front	B. Hatheun (Hatkhamb)	0	0	0	0
15.	Mr. Bouthdiphaseuth	Assistance of Village	B. Nampa	0	0	0	0
16.	Mr. Bouthdeephaseuth	Assistance of Village	B. Nampa	0	0	0	0
17.	Mr. Dava	National Front	B. Nampa	0	0	-	-
18.	Mr. Bounsou Xayyavong	Head of Village	B. Nampa	0	0	0	0
19.	Mr. Souatho Phialouang	Assistance of District	Hom district	0	0	0	0
20.	Mr. Souavang	Head of Village	B. Sopphouan	0	0	0	0
21.	Mr. Yialongvang	Head of Village	B. Houaypamom	0	0	0	0
22.	Mr. Bouaphanh	Head of Thavieng	Thavieng Sub-District	0	0	0	0
23.	Mr. Bounmad	Assistance of Village	B. Namlong	0	0	0	0
24.	Mr. Tidphomma	Head of Village	B. Naxong	0	0	0	0
25.	Mr. Done	Head of Village	B. Viengthong	0	0	0	0
26.	Mr. Vith	Assistance of Village	B. Nahong	0	0	0	0
27.	Mr. Khammouane	Head of Village	B. Phiangta	0	0	0	0
28.	Mr. Bounsou	Head of Village	B. Phonyeng	0	0	0	0
29.	Mr. Kongsai	Head of Village	B. Pou	0	0	0	0
30.	Mr. Douang	Head of Village	B. Dong	0	0	0	0
31.	Mr. Somlith	Head of Village	B. Xiengkong	0	0	0	0
32.	Mr. Thomma	Head of Village	B. Phonehom	0	0	0	0
33.	Mr. Bounnoy	Head of Village	B. Nakang	0	0	0	0
34.	Mr. Bounmy	Head of Village	B. Naxay	0	0	0	0
35.	Mr. Bounchan	Assistance of Village	B. Hatsamkhone	0	0	0	0

ANNEX – 4 (3/3) Attendance List of 2nd General Workshops (3/3)

V. International Organization

No.	Name	Position	Organization	9th	10th	10th	11th
1.	Mr. Seiji Nagano	Secretary	Embassy of Japan	0	-	-	-
2.	Mr. Shoshiro Horigome	Project Officer	Mekong River Commission	0	0	0	0
3.	Mr. Uodomsak Philavong	Engineer	Mekong River Commission	0	0	0	0
4.	Mrs. Kilmarx	Environmental Unit	UNDP	-	0	0	-
5.	Dr. D.L.Graybill	Natural Environment	Env. Assess.Committee	0	0	0	0
6.	Dr. Daiei Inoue	Director	Env. Assess.Committee	0	0	0	0
7.	Mr. Mikio Masaki	Project Formulation	JICA/Lao Office	0	-	-	-
8.	Mr. Sophonh	Program Officer	JICA/Lao Office	0	0	0	0
9.	Mr. Hiroyuki Kobayashi	Program Officer	JICA/Tokyo	0	0	0	0
10.	Mr. Hiroyuki Tsuchiya	Hydropower Planner	JICA/Tokyo	0	0	0	0

VI. NGOs in Lao PDR

No.	Name	Position	Organization	9th	10th	10th	11th
1.	None	-	-	-	-	-	-

VII. NGOs Overseas in Lao PDR

No.	Name	Position	Organization	9th	10th	10th	11th
1.	None	-	-	-	-	-	-

VII Facilitator, Media and

No.	Name	Position	Organization	9th	10th	10th	11th
1.	Mr. Vatthana	Media	Borikhamsay Inform.&	0	-	-	-
2.	Mr. Khamkhong	Facilitator	Employed by HPO	0	0	0	0
3.	Mr. Soradeth Bannavong	Interpreter	Employed by HPO	0	0	0	0
4.	Mr. Detmahinh Souphanh	Interpreter	Employed by HPO	0	0	0	0

IX. Consultant and Study Team

No.	Name	Position	Organization	9th	10th	10th	11th
1.	Mr. Chung Phounlatsayong	Chairman	STS Consultant	0	-	-	-
2.	Mr. Sisavath Chanthamisay	Engineer	STS Consultant	0	0	0	0
3.	Mr. Sourrisak	Manager	STS Consultant	0	0	0	-
4.	Mr. S.P.Watson	Sub-contract with STS	RMR	0	0	0	0
5.	Mr. Ichiro Araki	Team Leader	JICA Study Team	0	0	0	0
6.	Mr. Hiroshi Ikeda	Hydropower Planner	JICA Study Team	0	0	0	0
7.	Dr. Bernard Yon	Natural Environment	JICA Study Team	0	0	0	0
8.	Dr. Tod Anthony Ragsdale	Social Environment Expert	JICA Study Team	0	0	0	0

Ground Total : 119 Peoples