

ເອກກະສານຊ້ອນທ້າຍ-1

ເອກກະສານທີ່ກ່ຽວຂ້ອງກັບ  
ຄະນະຊີ້ນໍາໂຄງການ

ເອກກະສານຊ້ອນທ້າຍ-1 (a)      ກອງປະຊຸມຄະນະຊີ້ນຳໂຄງການ ຄັ້ງທີ 1  
(19 ພຶດສະພາ 2011)

# **The Project on Riverbank Protection Works Phase II For The Joint Coordinating Committee Meeting First Year**

Date: May 19, 2011 (Thu)

Venue: Meeting Room of Department of Waterways, MPWT

## **1. Joint Coordinating Committee**

### (1) Function

The Joint Coordinating Committee (hereinafter referred to as “JCC”) will be organized and meet at least once a year and whenever necessity arises, in order to fulfill the following functions;

- (a) To approve the annual work plan formulated by the Project
- (b) To review the over all progress and achievements of the project and activities carried out under the above mentioned annual work plan
- (c) To review and exchange opinions on any issues that may arise from or concerning the Project

### (2) Membership

(a) Chairperson: Minister, MPWT

(b) Co chairperson: Director General, Department of Planning and Cooperation, MPWT  
Director General, DoW, MPWT  
Chief Representative, JICA Laos Office

(c) Lao side: Representatives, Bank Protection and Flood Control Division, DoW, MPWT  
Representatives, Planning and Disbursement Division, DoW, MPWT  
Deputy Director, DPWT, Bokeo province  
Head of Road and Bridge Unit, DPWT, Luangprabang province  
Director General, DPWT, Bolikhamxay province  
Representatives, DPWT, Vientiane Capital  
Representative, Department of International Cooperation, MPI  
Other officials mutually agreed upon

Japanese side: Japanese experts  
Representative, JICA Laos Office  
Other relevant personnel mutually agreed upon

Note: The members of the committee may appoint their substitution to attend the committee meeting.

### Agenda:

- |                 |   |
|-----------------|---|
| <9:00– 9:20>    | Registration  |
| <9:20 – 9:30>   | Keynote Opening<br>Mr. Bounchanh SINTAVONG, Vice Minister.  |
| <9:30 – 9:40>   | Greeting form JICA<br>Mr. Masato TOGAWA, Chief Representative JICA Lao Office   |
| <9:40 – 10:00>  | Explanation of Project Activity for First Year<br>Mr. Souksavanh THITHAVONG ,Project Manager                            |
| <10:00 – 10:10> | Coffee Break  |
| <10:10 – 10:30> | Explanation of Annual Work Plan for second Year<br>Mr. Taketoshi MATSUNAGA, Chief Advisor                               |
| <10:30 – 10:50> | Expectation toward Phase ii<br>Mr. Hirohi TAKAGI, Associate Expert, Global Environment<br>Department (JICA Headquarter) |
| <10:50 – 11:30> | Discussion  |
| <11:30 – 11:40> | Summary of Meeting , Mr. Bounchanh SINTAVONG, Vice Minister.  |
| <12:00>         | Closing Mr. Hounglar SENGMUANG, Project Director ( Director General<br>of Inland Waterways.                             |

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ

PARTICIPANTS LIST

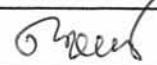
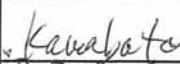

AGENDA	ກອງປະຊຸມ ຄະນະຊີ້ນຳໂຄງການ ຮ່ວມມືທາງດ້ານເຕັກນິກ ປ້ອງກັນຕະຜັງເຈືອນ ລາວ-ຍີ່ປຸ່ນ ຊ່ວງ II THE PROJECT ON RIVERBANK PROTECTION WORKS PHASE II The Joint Coordinating Committee Meeting First Year					
DATE	May 19, 2011 (Thu)					
PLACE	MPWT Meeting room (No.3), Vientiane					
No.	NAME	ORGANIZATION	POSITION/TITLE	TEL	E-Mail	SIGNATURE
1	Mr Nouansavanh SENGMAHY	DPWT Bolichaukay	Director DPWT	22332007	nouansavanh@yahoo.com	
2	Mr. Asween INPHITHACK	DPWT Luang Prabang	Dep Director	55346277	aswiptpst@yahoo.com	
3	Mr. DALIVANH PROUSAVANH	DPWT BOKEO	Director DPWT	2380338	dprousavanh@yahoo.com	
4	Mr. Houngkat S.	DOW	DG	222204245	Houngkat@yahoo.com	
5	Mr. Rokuro KOBAYASHI	JICA Expert	Expert	02055668537	kobayark@cb3.so-net.ne.jp	
6	Mr. Taketoshi MATSUNAGA	JICA Expert	Chief Adviser	02056703941	matsunagatk@newjec.co.jp	
7	Mr. Hiroshi TAKAGI	JICA HQ	Associate Expert		takagi.hiroshi@jica.go.jp	
8	Mr. Masato TOGAWA	JICA Laos	Chief Rep.	021241100		
9	Ms. Yoko HATTOPI	JICA Laos	Rep	021241100	Hattori.Yoko@jicag.jp	
10	Mr. Hideki Otsuki	JICA Expert	Wice Chief Advisor	02059557768	otsukihd@newjec.co.jp	
11	Mr. Tsutomu KAMEYAMA	"	Construction management	020-	ic625863@nifty.com	
12	Ms. Ikuko KAWABATA	"	Section chief		kawabatakk@newjec.co.jp	
13	Mr. Chanthavong Soukchanphone	"	Coordinator	5955-7769	chansic@newjec.co.jp	
14	Mrs. Chanthaphone Soukvanh	DOW	Deputy Director of Division Budgeting and Planning	02824	Soukvanh@yahoo.com	
15	Mr. Khem Seng ALY	"	Deputy Director of Division / Riverbank Protection and Flood Control		Aly_Seng@yahoo.com	

ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ  
PARTICIPANTS LIST

No.	NAME	ORGANIZATION	POSITION/TITLE	TEL		SIGNATURE
AGENDA	ກອງປະຊຸມ ຄະນະຊີ້ນຳໂຄງການ ຮ່ວມມືທາງດ້ານເຕັກນິກ ບ້ອງກັນຕະຝັງເຈືອນ ລາວ-ຍີ່ປຸ່ນ ຊ່ວງ II THE PROJECT ON RIVERBANK PROTECTION WORKS PHASE II The Joint Coordinating Committee Meeting First Year					
DATE	May 19, 2011 (Thu)					
PLACE	MPWT Meeting room (No.3), Vientiane					
16	Mr. Bouonlax XAYAVONG	Plamony	Technical	77829093		
17	Ms. Monlatda CHANTHAVONG	JICA	Assistance Program Officer	2492934	Monlatda.C.LA@jica.go.jp	
18	Mr. Khampheng LEEFHUNG	MPWT	M. civil Engeneer	55338377	dondow@yahoo.com	
19	Mr. Phimmason Sengsouyavong	CP project	CP project	22228820	Phimmason.tony@hotmail.com	
20	Mr. Anouay Mongkhoun	Project	Counter Part	77921979	anouay87@gmail.com	
21	Mr. Valiya SICHANTHONGTHIP	Japan Desk	Japan Desk	9607272	Valiyaseo@hotmail.com	
22	Mr. Souksavanh	DIC. MPWT	M/P	55662531	no my 633@yahoo	
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ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມປະຊຸມ

PARTICIPANTS LIST

AGENDA	ກອງປະຊຸມ ຄະນະຊີ້ນຳໂຄງການ ຮ່ວມມືທາງດ້ານເຕັກນິກ ບ້ອງກັນຕະຜັງເຈືອນ ລາວ-ຍີ່ປຸ່ນ ຊ່ວງ II THE PROJECT ON RIVERBANK PROTECTION WORKS PHASE II The Joint Coordinating Committee Meeting First Year					
DATE	May 19, 2011 (Thu)					
PLACE	MPWT Meeting room (No.3), Vientiane					
No.	NAME	ORGANIZATION	POSITION/TITLE	TEL	E-Mail	SIGNATURE
1	Bounchanh SINTHAVON	MPWT	vice manager	99901326		
2	TakeToshi Matsunaga	NEWJEC	Chief Advisor	5670-3941		
3	Hideki Otsuki	-"-	vice chief Advisor	5955-7768		
4	Rokoro Kobayashi	-"-	River Engineering	5566 8537		
5	Ikuko Kawasata	-"-	Ve getation Engineering		kawabatak@newjec	
6	Chanthavong SOUK CHALEUNE	-"-	Coordinator	5955-7769		
7						
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MINUTES OF MEETING  
OF  
THE FIRST JOINT COORDINATING COMMITTEE  
FOR  
THE PROJECT ON RIVERBANK PROTECTION WORKS PHASE II

AGREED UPON BETWEEN  
THE CONSULTANT TEAM ORGANIZED BY  
JAPAN INTERNATIONAL COOPERATION AGENCY  
AND  
THE DEPARTMENT OF WATERWAYS OF  
THE MINISTRY OF PUBLIC WORKS AND TRANSPORT OF  
THE GOVERNMENT OF LAO PEOPLE'S DEMOCRATIC REPUBLIC

The Consultant Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") visited Lao People's Democratic Republic (hereinafter referred to as "Lao P.D.R.") from November 7 to December 15, 2010 and January 10 to May 26, 2011 for the purpose of implementation of a series of activities for the first year regarding the Project on Riverbank Protection Works Phase II (hereinafter referred to as "the Project").

The result of project activities for the first year, annual work plan for the second year and other concerned issues were reported and discussed at the Joint Coordinating Committee (JCC) meeting for the Project in Vientiane on May 19, 2011.

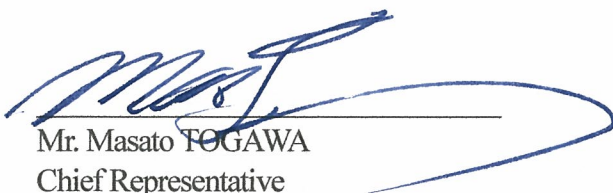
As a result of the JCC meeting, the Team and the Department of Waterways, Ministry of Public Works and Transport (hereinafter referred to as "both sides") agreed as shown in the "Attached document".

Vientiane, May 19, 2011

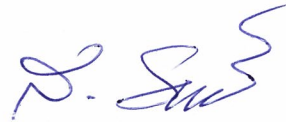


Mr. Taketoshi MATSUNAGA  
Chief Advisor/ River Management,  
Consultant Team for the Project on  
Riverbank Protection Works Phase II

Witnessed by:




Mr. Masato FOGAWA  
Chief Representative  
JICA Laos Office



Mr. Souksavanh THITHAVONG  
Project Manager for Riverbank Protection  
Works Phase II

Witnessed by:



H.E. Mr. Bounchanh SINTHAVONG  
Vice Minister  
Ministry of Public Works and Transport

## ATTACHED DOCUMENT

### I. DISCUSSION POINTS

Discussion points were summarized by H.E. Mr. Bounchanh SINTHAVONG, Vice Minister of the Ministry of Public Works and Transport as the chairperson of JCC meeting as shown below.

1. JCC membership accepted the result of project activities for the first year.
2. JCC membership accepted the annual work plan for the second year.
3. JCC membership and attendance confirmed the following project policy;
  - Counterpart (C/P) needs to have proper knowledge to be able to choose appropriate methods suit for river conditions.
  - The Project should aim at the dissemination of eco-friendly and low-cost riverbank protection for all provinces in the future.
  - C/P should possess comprehensive knowledge for materializing eco-friendly and low-cost riverbank protections by themselves.
4. Other concerned issues discussed at the JCC meeting were summarized as follows:
  - (1) JCC membership accepted to organize the training course at the target provinces such as Bokeo, Bolikhamxay and Luangprabang before and after pilot construction of the Project.
  - (2) JCC membership accepted that local contractors, if they meet the conditions required for the enrollment, will be able to participate to the above-mentioned training course.
  - (3) JCC membership confirmed that Lao side will request to JICA via the Team regarding the additional office facility such as personal computers, photocopy machine, digital cameras and so forth for the smooth project implementation after further discussion on its necessity between both sides.
  - (4) JCC membership accepted the further site selection for Bolikhamxay with priority for Ban Pakthoay and Ban Keng Sadok.
  - (5) JCC membership confirmed that Lao side will consult the Ministry of Planning and Investment for dissemination of eco-friendly and low-cost riverbank protection for all provinces in the future.
  - (6) JCC membership confirmed that Lao side will make more efforts for allocating the budget for the pilot projects and the dispatch of C/P to the sites.
  - (7) JCC membership confirmed that C/P from DPWT Vientiane Capital was changed from Mr. Bounkhong PHOUMDOUNGDY who had been listed as C/P in the Record of Discussion (R/D) signed on July 2010 to Mr. Phonesay SOULIYAVONG.

### Annex I LIST OF ATTENDANCE



## Annex I LIST OF ATTENDANCE

### Ministry of Public Works and Transport (MPWT)

1. H.E. Mr. Bounchanh SINTHAVONG, Vice Minister

#### Department of Waterways (DOW)

1. Mr. Hounгла SENGMUANG, Director General
2. Mr. KhamSeng ALY, Deputy Director, Bank Protection and Flood Control Division
3. Ms. Chanthaviphone SOULIVANH, Deputy Director, Budget and Planning Division

#### Department of Planning and Cooperation

1. Mr. Bounlak XAYOVDOM, Technical Staff

### Ministry of Planning and Investment

1. Mr. Valiya SICHANTHONGTHIP, Japan Desk

### Department of Public Works and Transport (DPWT)

1. Mr. Dalivanh PHOUSAVANH, Director General, DPWT Bokeo Province
2. Mr. Nouansavanh SENGMANY, Director General, DPWT Bolikhamxay Province
3. Mr. Asween INPHITHACK, Deputy Director General, DPWT Luangprabang Province

### Counterpart Officials

1. Mr. Souksavanh THITHAVONG, Project Manager, DOW, MPWT
2. Mr. Khamphuiy LEEFHUNG, Technical Staff, DOW, MPWT
3. Mr. Phimmason SENGSOURIYAVONG, Technical Staff, DOW, MPWT
4. Mr. Anouxay MONGKHOUN, Technical Staff, DOW, MPWT

### JICA Head Quarter

1. Dr. Hiroshi TAKAGI, Associate Expert, Global Environment Department

### JICA Laos Office

1. Mr. Masato TOGAWA, Chief Representative
2. Ms. Yoko HATTORI, Representative
3. Ms. Monlatda CHANTHAVONG, Assistant Program Officer

### The Consultant Team

1. Mr. Taketoshi MATSUNAGA, Chief Advisor/ River Management
2. Dr. Hideki OTSUKI, Vice Chief Advisor/ River Management
3. Dr. Rokuro KOBAYASHI, River Engineering/ Riverbank Protection Planning & Design/ Topographical Survey
4. Mr. Tsutomu KAMEYAMA, Construction Supervision/ Cost Estimation
5. Ms. Ikuko KAWABATA, River Vegetation Works/ Maintenance
6. Mr. Chanthavong SOUKCHALEUNE, Project Coordinator 1/ Assistant Riverbank Protection Planning & Design/ Assistant Cost Estimation

ເອກກະສານຊ້ອນທ້າຍ-1 (b)      ກອງປະຊຸມຄະນະຊີ້ນໍາໂຄງການ ຄັ້ງທີ 2  
(24 ພຶດສະພາ 2012)

## The Project on Riverbank Protection Works Phase II

### The Joint Coordinating Committee

– For the Second Year –

#### Context:

The Joint Coordinating Committee (JCC) will be organized and meet at least once a year and whenever necessity arises, in order to fulfill the following functions:

- (a) To approve the annual work plan formulated by the Project
- (b) To review the over all progress and achievements of the project and activities carried out under the above mentioned annual work plan
- (c) To review and exchange opinions on any issues that may arise from or concerning the Project

Second JCC meeting will be held in association with the mid-term joint evaluation mission

#### Membership:

- (a) Chairperson: Minister, MPWT
- (b) Co chairperson: Director General, Department of Planning and Cooperation, MPWT  
Director General, DoW, MPWT  
Chief Representative, JICA Laos Office
- (c) Lao Side: Representatives, Bank Protection and Flood Control Division, DoW, MPWT  
Representatives, Planning and Disbursement Division, DoW, MPWT  
Deputy Director, DPWT, Bokeo Province  
Head of Road and Bridge Unit, DPWT, Luangprabang Province  
Director General, DPWT, Bolikhamxay Province  
Representatives, DPWT, Vientiane Capital  
Representative, Department of International Cooperation, MPI  
Other officials mutually agreed upon
- (d) Japanese Side: Japanese Experts  
Representative, JICA Laos Office  
Other relevant personnel mutually agreed upon
- (e) Mid-term Joint Evaluation Team

Note: The members of the committee may appoint their substitution to attend the committee meeting.

**Date:** May 24, 2012 (Thu)

**Venue:** Conference Room of MPWT

**Agenda:**

<09:00 – 09:30> Registration

<09:30 – 09:40> Keynote Opening

Mr. Houn gla SENGMUANG, Director General Department of Waterways

<09:40 – 09:50> Greeting from JICA

Mr. Yoshiharu YONEYAMA, Senior Representative, JICA Laos Office

<09:50 – 10:40> Explanation of Project Activity for First & Second Year

Mr. Souksavanh THITHAVONG, Project Manager

<10:40 – 10:55> Coffee Break

<10:55 – 11:45> Explanation of Annual Work Plan for the Third Year

Mr. Taketoshi MATSUNAGA, Chief Advisor of JICA Consultant Team

<11:45 – 13:00> Lunch

<13:00 – 14:15> Explanation of Mid-term Evaluation Report

Mid-term Joint Evaluation Team

<14:15 – 14:30> Coffee Break

<14:30 – 15:00> Discussion

<15:00 – 15:15> Conclusion of Minutes of Meeting

<15:15 – 15:30> Closing

Mr. Houn gla SENGMUANG, Director General Department of Waterways

**Expense:**

Conference Expenses: by Consultant Team

Lunch: by Consultant Team

Transportation Fees from Province to Vientiane (based on MPWT's regulation):

by Consultant Team

Per Diem and Accommodation Fees (based on MPWT's regulation):

by MPWT

## PARTICIPANTS LIST

AGENDA	THE PROJECT ON RIVERBANK PROTECTION WORKS PHASE II The Joint Coordinating Committee Meeting (the Second Year)				
DATE	24 May.2012				
PLACE	Ministry of Public Works and Transport, Vientiane				
NO.	NAME	ORGANIZATION	PROSITION/TITEL	TEL or E-MAIL	SIGNATURE
1	Mr.Houngla SENG MUANG	DOW	DG	22220435	
2	Mr Boun Khang Souk SAVATH	D PWT L.PB	Deputy	55570723	
3	Mr. Khamphay Phonthachack	DPWT BOKEO	head of water way	22282919	
4	Mr. Kouthong SOMMALA	DIC/MPI	Deputy head. Di	55019942	
5	Mr. Khamphai LEEFHUNG	DOW	Staff	55338377	
6	Mr. Kham Sane phaynaray	DPWT D.K	C/P	22332466	
7	Mr. Anouay MONKHOUNG	DOW	C/P	22622555	
8	Mrs. Chanbounphon Soulivanh	DOW	DD	22402829	
9	Mr. Bounchanhinh Palaseu	DOW	Staff	59876406	
10	Mrs. Kham Seang Bly	DOW	Deputy head of RIB	22215688	
11	OU LOY	DPC	DDS		
12	NORITAKE MORI	JICA Expert	MPWT	5932-8311	
13	Mr. Phomsay Soul SYAVONG	DPWT. VI	C/P	02022086161	
14	Mr. Khamphong Thepkhamharas	DPWT/BKX	Deputy of the project	22332279	
15	Mr. Takechi Matsunaga	JICA Consultant Team	Chief Advisor	56703941	
16	Ms. Yoko Hatton	JICA Laos office	R	241100	
17	Mr. Yoshiharu Yoneyama	JICA Laos office	SR	"	
18	Mr. Hideo MIYAMOTO	JICA HDQ	Leader of Mid-term review Team		
19	Ms. Yuki TANAKA	JICA HQ	member of Mid-term review Team		
20	Mr. Tomoya KIKUTA	JICA HQ	Member of Mid-term review Team		
21	Ms. KINUKO MITANI	JICA Mission	Same as above		
22	Dr. Hideki Otsuki	JICA Consultant Team	Vice Chief Advisor	59557468	
23	Mr. Yoshihiro MIWA	JICA Consultant Team	River Engineering	58105962	
24	Ms. Rumi Kato	JICA consultant team	coordinator	55670991	
25	Ms Monlatda CHANTHAVONG	JICA Laos Office	Assistant Program Offi.	22492934	
26	Mr. Nouansavanh SENG MANG	DPWT/BKX	Sr. PWT BKX	22332007	
27	Mr. Phummasone Sengseuriya/voong	DOW	Staff C/P	22228820	
28	Ms. Moutmany Vannasy	DOW	Staff CP	23330112	
29	Mr. Souk Savang THITHAVONG	DOW	Project Manager	55668531	
30	Mr. Vitayseuk Thongkhamhan	Freelancer	Interpreter	27445263	

**MINUTES OF MEETING**  
**BETWEEN**  
**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**AND**  
**MINISTRY OF PUBLIC WORKS AND TRANSPORT OF THE GOVERNMENT OF THE**  
**LAO PEOPLE'S DEMOCRATIC REPUBLIC**  
**ON**  
**JAPANESE TECHNICAL COOPERATION**  
**FOR**  
**THE PROJECT ON RIVERBANK PROTECTION WORKS PHASE II**

The Japanese Mid-term Review Team (hereinafter referred to as "the Team") organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Hideo Miyamoto, visited Lao People's Democratic Republic (hereinafter referred to as "Lao P.D.R.") from May 8 to May 24, 2012, for the purpose of conducting the Mid-term Review of "the Project on Riverbank Protection Works Phase II" (hereinafter referred to as "the Project").

The Team exchanged the views and had a series of discussions on the Project with the Ministry of Public Works and Transport (hereinafter refer to as "MPWT") of the Government of the Lao P.D.R.

As the result of review and analysis of the activities and progress of the Project, both the Team and MPWT agreed to the matters referred to in the documents attached hereto and forward it to the respective governments.

Vientiane Capital, May 24, 2012

Mr. Hideo MIYAMOTO  
Leader  
Mid-Term Review Team  
Japan International Cooperation Agency

*witnessed by:*

Mr. Masato TOGAWA  
Chief Representative  
JICA Laos Office

Mr. Hounгла SENGMUANG  
Director General  
Department of Waterways  
Ministry of Public Works and Transport

*witnessed by:*

H.E. Mr. Bounchanh SINTHAVONG  
Vice Minister  
Ministry of Public Works and Transport

JOINT EVALUATION REPORT  
(MID-TERM REVIEW)

THE JAPANESE TECHNICAL COOPERATION

THE PROJECT ON RIVERBANK PROTECTION WORKS PHASE II

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
JAPAN

MINISTRY OF PUBLIC WORKS AND TRANSPORT  
LAO PEOPLE'S DEMOCRATIC REPUBLIC

MAY 24, 2012

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1. Introduction
  - 1.1 Objectives of the mid-term review
  - 1.2 Methodology
  - 1.3 Members of the joint *mid*-term review team
  - 1.4 Schedule of the joint mid-term review
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  - 2.1 Background of the Project
  - 2.2 Project overview
    - 2.2.1 Overall goal
    - 2.2.2 Project purpose
    - 2.2.3 Outputs
    - 2.2.4 Beneficiaries
3. Inputs provided to the Project
  - 3.1 Japanese side
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  - 5.3 Efficiency
  - 5.4 Impact
  - 5.5 Sustainability
6. Conclusion
7. Recommendations
8. Lessons learned

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- Annex 1: Evaluation grid
- Annex 2: Schedule of the mid-term review
- Annex 3: PDM (Version 1)
- Annex 4: Plan of Operation (Version 1)
- Annex 5-1: List of the project members from Japanese side
- Annex 5-2: List of the training in Japan
- Annex 5-3: List of the training in Laos
- Annex 5-4: List of the equipment procured
- Annex 5-5: List of the project members from Lao side



## List of Abbreviations

BKO	Bokeo Province
BLM	Bolikhamxay Province
C/P	Counterpart
DMH	Department of Meteorology and Hydrology
DoW	Department of Waterways
DPWT	Department of Public Works and Transport
GOJ	Government of Japan
GOL	Government of Lao P.D.R.
IDI	Infrastructure Development Institute
JCC	Joint Coordination Committee
JICA	Japan International Cooperation Agency
LAK	Lao Kip
LPB	Luangprabang Province
M/M	Minute of Meetings
m/m	Man/month
M/P	Master Plan
MPI	Ministry of Planning and Investment
MRC	Mekong River Commission
MPWT	Ministry of Public Works and Transport
OJT	On-the-Job-Training
PDM	Project Design Matrix
R/D	Record of Discussions
VTE	Vientiane Capital

*See*

*M.S.*

*MS*

## **1. Introduction**

### **1.1 Objectives of the mid-term review**

The joint mid-term review was conducted with the following objectives:

- (1) to verify and evaluate the outputs and achievements of the Project;
- (2) to provide recommendations on the project activities for the remaining period; and
- (3) to draw lessons learned for implementing similar projects in the future.

### **1.2 Methodology**

#### (1) Joint mid-term review

The Project was jointly evaluated by Lao and Japanese review teams. The review activities included report analysis and interviews with the project members. The review follows the Japan International Cooperation Agency (JICA) Guideline for Project Evaluation and is based on the five evaluation criteria: relevance, effectiveness, efficiency, impact and sustainability (see Annex 1).

#### (2) 5 Evaluation Criteria

- 1) Relevance: Relevance refers to the integrity and necessity; whether the project purpose meets the needs of the intended beneficiaries; whether it is consistent with Lao's policies, and Japan's aid policies; and whether the approach of the Project is appropriate.
- 2) Effectiveness: Effectiveness refers to the extent to which the project purpose has been achieved to benefit the beneficiaries and target societies.
- 3) Efficiency: Efficiency refers mainly to the relationship between the costs and outputs; whether input resources have been utilized effectively or not.
- 4) Impact: Impact refers to the long-term effects and ripple effects brought by the project implementation; including the achievement level of the overall goal and unintended positive and negative effects.
- 5) Sustainability: Sustainability refers to the extent to which the achievements of the Project would be further continued or expanded after the completion of cooperation.

### **1.3 Members of the joint mid-term review team**

The members of the joint mid-term review team (the Team) are shown below. There is one member from Lao side, and four members from Japanese side. In total, five persons took part in conducting the joint review of the Project.

*JS*

*m.j.*

*ms*

(1) Lao team

Role in the team	Name	Position/Organization
Member	Mr. Khamseng Aly	Deputy Chief, Riverbank Protection and Flood Control Division, DoW, MPWT

(2) Japanese team

Role in the team	Name	Position, Organization
Team Leader	Mr. Hideo Miyamoto	Senior Advisor to the Director General, Water Resources and Disaster Management Group, Global Environment Department, JICA
Technical Evaluation	Mr. Tomoya Kikuta	Deputy Director, Disaster Management Division 1, Water Resources and Disaster Management Group, Global Environment Department, JICA
Planning and Coordination	Ms. Yuki Tanaka	Program Officer, Disaster Management Division 1, Water Resources and Disaster Management Group, Global Environment Department, JICA
Evaluation Analysis	Ms. Kinuko Mitani	Consultant, IC Net Limited

**1.4 Schedule of the mid-term review**

The joint mid-term review was conducted from May 8 to 24, 2012. The detailed schedule of the evaluation is attached as Annex 2.

**2. Outline of the project**

**2.1 Background of the Project**

Lao People's Democratic Republic (Lao P.D.R.) is located on the Mekong River Basin, and has been flourished on inland water transport with neighboring countries such as China and Thailand. On the other hand, collapse and washout of the riverine land caused by riverbank erosion has been occurred along the Mekong River.

JICA expert was dispatched to the Ministry of Public Works and Transport (then Ministry of Communications, Transport, Post and Construction) in 1990s. Responsibilities of the expert included technology transfer of Japanese traditional river works, which is low cost and easy to maintain. The expert was also responsible for implementation of pilot construction, which applied Riprap Groyne method in Bokeo Province (BKO). Then, the Infrastructure Development Institute (IDI), Japan studied local applicability of Japanese traditional river works such as Soda Mattress method as well as other methods. IDI demonstrated riverbank protection measures using various methods as highlighted above on a pilot basis in Vientiane Capital (VTE). As the result of the contribution made by Japanese side, the Government of Lao P.D.R. (GOL) requested to the Government of Japan (GOJ) to establish a master plan (M/P) of riverbank erosion protection using Japanese traditional methods, which can be applied using

resources available at low cost in Laos. According to the request, JICA conducted “The Study on Mekong Riverbank Protection around Vientiane Municipality (Development Study)” in 2001. The study duration was approximately three years. In the development study, low cost methods were studied through pilot constructions in three sites using Japanese traditional river works. Based on the findings of the development study, M/P of riverbank erosion protection in VTE was prepared. The M/P set 2020 as the target year for completing necessary river protection measures in critical areas in Laos. Based on the M/P, GOL requested to GOJ a technical cooperation project to improve ability to conduct and maintain riverbank protection measures using traditional methods. “The Technical Cooperation Project on Riverbank Protection Works in Lao P.D.R. (Phase I)” was implemented from 2005 to 2007. As a follow-up to Phase I, the GOL requested the GOJ to plan and implement the second phase of the Project on Riverbank Protection Works (the Project) in 2008. In response to the request, the GOJ agreed to implement the Project. The Minute of Meetings (M/M) of the Project was signed in March 2010, and the Record of Discussion (R/D) of the Project in July 2010. The duration of the Project was planned for four years – November 2010 to October 2014.

## **2.2 Project overview**

The Project revised the Project Design Matrix (PDM) in May 2012. At the time of mid-term review, PDM (Version 1) was drafted to include newly defined (in exact score) objectively verifiable indicators against the expected outputs (see Annex 3). It was approved by the Joint Coordination Committee (JCC) Meeting held on May 24, 2012.

### **2.2.1 Overall Goal**

The overall goal of the Project and the objectively verifiable indicators to measure the achievement levels of the overall goal are shown below. There is no change made to the overall goal and its indicator agreed at the time of project formation. In the Project, the following approaches shown in Table 1 are introduced as low-cost and environmentally friendly measures for riverbank protection.



Table 1 Function and structure of traditional river work methods

Work Method	Functional Classification	Description of Function	Structural Classification	Description of Structure
Bank Protection	Slope protection work	Protect river bank slope from erosion by flowing water and direct shock by driftwoods, etc.	Sodding work	Sod lawn to slope to protect slope.
			Haguchi work	Stones, straw bag, etc. to protect bank slope (haguchi) and "earth dike" parts exposed to running water.
			Hurdle work	Make hurdles in a reticular pattern using soda, cover slope by paving inside of reticular pattern with soil and gravel for protection.
			Basket work	Make baskets and fill the baskets with cobbled stones, macadam, and gravel, then cover slope with the baskets for protection.
			Stone work	Mainly apply to levee or bank with slope of 10 to 30%. Cover entire surface of deversoir and the like with stone work. Stone work is conducted either by mounding or paving stones (generally, the phrase "paving stones" is used when slope is flatter than 1:1).
	Toe protection work	Support slope protection work considering flooding water	Foundation work	Build foundation at the lower end of the slope to support the slope.
			Hurdle work	Build hurdle at the lower end of the slope and fill the back side with soil and stones to support the slope.
			Crib work	Drive backup piles to prevent piles of hurdle from tilting and form frames by connecting each other with wood, wire, etc. for reinforcement.
	Foot protection work	Make rivetment work more solid considering riverbed evolution, etc. such as local riverbed scouring	Riprap work, Rubble-draw work	Protect toe protection work from riverbed evolution such as local riverbed scouring by placing big rubble and cobble stones in front of revetment (Riprap work) or by drawing only big cobbled stones to riverbank (Rubble-draw work). They are easy-to-implement works and highly effective.
			Mattress work	Insert stones into soda, etc. and sink them in water to protect revetment work from riverbed evolution such as local riverbed scouring. Mattress work also serves as foundation of groyne works.
Groyne	Groyne work	Groyne work serves as roughness element against water flow and slows flow velocity to protect riverbank from erosion. Or they directly obstruct water flow and change direction of water flow to protect riverbank	Skeleton work	Skeleton work is permeable groyne, which is mountain-ridge-shaped wooden frame weighted by gabions so that it does not turn over. Skeleton work is used in riverbed consisting of sand gravel since it is difficult to drive piles into sand gravel. It is said that the origin of this frame is ledge used to dry sheaves. Various frames have been developed depending on river characteristics.
			Crib work	Crib work is non-permeable groyne, which is wooden frame weighted by cobbled stones. Crib work is also used in riverbed consisting of sand gravel as skeleton work is.
			Various dike works	Dike extends to the center of the river. There are many methods of works using pebble, soil, pile, etc.

Source: "Kasen Dento Kogei Donyu-no Kangaekata (How to approach implementation of traditional river work)", Kasen Kankyo Sogo Kenkyusho Report, No. 10, 2004 – Project Inception Report (p.13)

There is no change made to the overall goal of the Project as well as the objectively verifiable indicator as shown in Table 2. The overall goal is expected to be achieved by efforts of Lao side in three to five years after the project termination.

Table 2 Overall goal of the Project – plan and actual

Narrative Summary	Plan (Version 0)	Actual (Version 1)
Overall Goal	The other provincial DPWT staff, besides the target group, will be able to implement low cost and environmentally friendly protection measures against riverbank erosion.	No change
Objectively Verifiable Indicator	Riverbank protection works will be implemented at least one site in the other provinces.	

### 2.2.2 Project Purpose

The project purpose and the objectively verifiable indicator to measure the achievement levels of the project purpose are shown in Table 3. There is no change made to the project purpose and its indicator set at the time of project formation.

Table 3 Project purpose of the Project – plan and actual

Narrative Summary	Plan (Version 0)	Actual (Version 1)
Project Purpose	The capacity of the staff of the target group on riverbank protection measures with reasonable cost and environmental friendly ways is improved.	No change
Objectively Verifiable Indicator	Riverbank protection works will be implemented at least three sites in the pilot project provinces.	

### 2.2.3 Outputs

There are four expected outputs in the Project as shown in Table 4. No changes are made to the outputs, which were set at the time of project formation. During the mid-term review, discussions between the Project and the Team were held to clearly define the objectively verifiable indicators<sup>1</sup>. As the result of the discussions, 75 out of 100 points was set as the target score. 75 points indicates the capacity level of self-sufficiency as relatively high<sup>2</sup>. The Japanese experts believe that one who gets 75 points will be able to perform independently (without guidance of Japanese expert(s)).

<sup>1</sup> At the time of project formation, it was agreed that evaluation of the ability improvement of the C/P would be made based on an evaluation criteria that was prepared after project commencement.

<sup>2</sup> 50 points indicates the capacity level of fair (requires some guidance from Japanese expert(s)). 100 points means the capacity level of excellent.

Table 4 Outputs of the Project – plan and actual

Narrative Summary	Plan (Version 0)	Actual (Version 1)
Output 1	Capacity of survey and planning on riverbank protection works is improved.	No change
Objectively Verifiable Indicators	All the C/P understands the survey and planning technique on the riverbank protection through OJT.	All the C/P scores 75 points when the Japanese experts evaluate abilities related to survey and planning technique on the riverbank protection through OJT.
Output 2	Capacity of design and construction on riverbank protection works is improved.	No change
Objectively Verifiable Indicators	All the C/P understands the design and construction on the riverbank protection through OJT.	All the C/P scores 75 points when the Japanese experts evaluate abilities related to design and construction on the riverbank protection through OJT.
Output 3	Capacity of monitoring, maintenance, and evaluation on riverbank protection works is improved.	No change
Objectively Verifiable Indicators	All the C/P understands the monitoring, maintenance, and evaluation on the riverbank protection through OJT.	All the C/P scores 75 points when the Japanese experts evaluate abilities related to monitoring, maintenance, and evaluation on the riverbank protection through OJT.
Output 4	Wider knowledge on river engineering that is helpful to measures against riverbank erosion is attained.	No change
Objectively Verifiable Indicators	All the C/P understands the river management and river engineering on the riverbank protection through OJT.	All the C/P scores 75 points when the Japanese experts evaluate knowledge related to river management and river engineering on the riverbank protection through OJT.

#### 2.2.4 Beneficiaries

Direct beneficiaries of the Project are staff members of DoW, MPWT at central and of DPWT in BKO, Luangprabang Province (LPB) and Bolikhamxay Province (BLM). Indirectly, the Project is expected to be beneficial to technical staff members of DoW and DPWT who are not directly implementing the Project. Similarly, the Project aims to indirectly benefit local community members who reside in and around the areas where the riverbank protection works are planned and/or constructed.

### 3. Inputs provided to the Project

In the R/D including the project framework, which is called as PDM stated the inputs to be provided from both Lao and Japanese sides for the project implementation.

#### 3.1 Japanese side

According to the R/D, seven experts from Japan were to be dispatched to the Project. In the course of project commencement, the number of experts to be dispatched was increased. List

of the current experts dispatched to the Project is shown below. At the time of mid-term review, 38.67 man/month (m/m) for the project implementation in Laos out of 75.00 m/m, is estimated to be spent by the end of the second year of the Project. No m/m for activities in Japan by the Japanese experts is allocated for the first and second year of the project implementation.

(1) Inputs from Japanese side – in Laos

Expert	First Year Plan (m/m)	First Actual (m/m)	Second Year Plan (m/m)	Second Year Actual* (m/m)
Chief Advisor/ River Management	5.37	5.63	2.87	5.33
Vice Chief Advisor/ River Management	3.70	3.70	0.73	2.87
Geological Survey	1.43	1.20	0.73	0.53
River Engineering/ Riverbank Protection Planning and Design/ Topographic Survey	5.20	5.13	2.84	3.30
Construction Supervision/ Cost Estimation	1.90	1.83	1.93	3.36
Traditional Riverbank Protection/ Construction Advice	1.33	1.53	0.73	1.10
River Vegetation Works/ Maintenance	1.77	1.73	0.73	1.43
Project Coordinator 1 <sup>3</sup> / Assistant Riverbank Protection Planning and Design/ Assistant Cost Estimation	1.00	0.93	0	0.97
TOTAL	20.70	20.75	10.56	17.92

\*Actual shows the total m/m spent during the first and second year of the project period.

According to the Japanese experts, the planned activities are expected to be completed before the project termination and within the m/m planned for the Project.

### 3.2 Lao side

As planned, Lao side assigned the following personnel such as project director, project manager and project members consist of personnel from central and provincial levels as shown in Table 5. One of the project members from DPWH LPB is changed. The change is reflected in Table 5.

Table 5 List of the project members from Lao side – at the time of mid-term review

Counterpart	Name	Post, Organization
Project Director	Mr. Houngla Sengmuang	Director General, DoW, MPWT
Project Manager	Mr. Souksavanh Thithavong	Civil Engineer, Bank Protection and Flood Control Division, DoW, MPWT
Project Management office - Member	Mr. Phimmason Sengsouriyavong	Technical Staff, Bank Protection and Flood Control Division, DoW, MPWT
Project Management	Mr. Khamphieuy Leefhung	Technical Staff, Post and Navigation Channel

<sup>3</sup> There is Project Coordinator 2 dispatched to the Project. This post is added to the Project owing to the initiative of the Contractor (NEWJEC Inc.), which is the implementing agency of the Project on behalf of JICA. Hence, m/m of Project Coordinator 2 is not counted in the total m/m of the Project.



office - Member		Division, DoW, MPWT
Project Management office - Member	Mr. Anouxay Mongkhoun	Technical Staff, Waterways Transport Division, DoW, MPWT
Target Area - Member	Mr. Phonesay Souliyavong	Technical Staff, Bank Protection Unit, DPWT VTE
Target Area - Member	Mr. Som Ock Manichanh	Deputy Project Manager, Waterways Administration Unit, DPWT BKO
Target Area - Member	Mr. Deth Oudom Heuanmisavath	Technical Staff, Waterways Administration Unit, DPWT BKO
Target Area - Member	Mr. Kham Phong Thepkhamheuang	Deputy Project Manager, Waterways Administration Unit, DPWT BLM
Target Area - Member	Mr. Khamsene Phagaxay	Technical Staff, Waterways Administration Unit, DPWT BLM
Target Area - Member	Mr. Sombath Chareunphonh	Deputy Project Manager, Waterways Administration Unit, DPWT LPB
Target Area - Member	Mr. Nakasu Soumphonepakdy (until May 2012)	Technical Staff, Road and Bridge Unit, DPWT LPB
	Mr. Soukkasane Sisouphan (since May 2012)	Technical Staff, Waterways Administration Unit, DPWT LPB

Office space was made available to the Project by DoW in VTE, which is located not too far from MPWT. Air conditioning, desks and chairs were also provided to the Project. Similarly, utilities such as electricity and water used in the project office are provided by DoW. In addition, assistance in visa application for the experts is provided by DoW.

At provincial level, office space is provided to the Project in DPWT building in BKO. Desks, chairs, air conditioner, utilities are also provided by Lao side. Same, if not similar arrangements are made available to the other two pilot project provinces - BLM and LPB.

#### 4. Achievements and implementation process of the Project

The Project is carrying out the planned activities for the most part in order to achieve the following four outputs set at the time of project formation. The project's progress is highlighted below.

##### 4.1 Outputs

In terms of improvement of abilities of the project members from Lao side, some improvements are made at both central and provincial levels. Although the project members from Lao side are working closely and hard under guidance of the Japanese experts towards achievement of the expected outputs, further improvement is required.

Newly defined objectively verifiable indicators set for each output are shown in Table 6. In addition, the score based on the baseline survey and the result of assessment conducted at the

end of first year in the Project is shown in Table 6.

Table 6 Outputs - progress

Required Ability	Baseline (points)	First Year (points)	Target (points)	Progress
1. Participating attitude to the Project	20 (MPWT) 20 (DPWT)	25 (MPWT) 20 (DPWT)	75 (MPWT and DPWT levels)	Improving slightly at central level, and no change at provincial level
2. Basic knowledge on hydrology, hydraulics, and river engineering	17.5 (MPWT) 10 (DPWT)	22.5 (MPWT) 12.5 (DPWT)	75 (MPWT and DPWT levels)	Improving slightly at central and provincial levels
3. On-site practical abilities	10 (MPWT) 10 (DPWT)	25 (MPWT) 50 (DPWT)	75 (MPWT and DPWT levels)	Improving slightly at central, and significantly at provincial level
4. Ability in design	5 (MPWT) 10 (DPWT)	25 (MPWT) 25 (DPWT)	75 (MPWT and DPWT levels)	Improving slightly at central and provincial levels
5. Ability in river survey	10 (MPWT) 25 (DPWT)	50 (MPWT) 50 (DPWT)	75 (MPWT and DPWT levels)	Improving significantly at central level, and slightly at provincial level
6. Ability in monitoring	5 (MPWT) 0 (DPWT)	5 (MPWT) 0 (DPWT)	75 (MPWT and DPWT levels)	No change
7. Ability in maintenance	5 (MPWT) 5 (DPWT)	5 (MPWT) 5 (DPWT)	75 (MPWT and DPWT levels)	No change
8. Ability in construction supervision	47.5 (MPWT) 37.5 (DPWT)	N.A.	75 (MPWT and DPWT levels)	The baseline was identified in the second year of the project implementation.

Note: Significantly indicates increased by more than 40 points), fairly more than 20 and less than 40 points, slightly more than 5 less than 20 points.

In the required abilities, no change is found in abilities such as monitoring and maintenance. The Project is designed to introduce activities aiming to build capacity related to monitoring and maintenance at latter half of the project implementation. Hence, it is understandable that such abilities are not yet improved at the time of mid-term review.

In addition to the above mentioned progress of each output, there are additional significant achievements made by the Project. Although positive factors were found in the Project, there is a room for improvement for realizing the outputs as highlighted in Table 7.

The result of the second year based on the eight required ability as shown in Table 6 is under review by the project members from Japanese side at the time of mid-term review. According to the Team Leader from Japanese side, the result is expected to be improved when compared to the first year.

Table 7 Progress of the outputs – positive and negative factors

Positive Factor	Negative Factor
Output 1	
<ul style="list-style-type: none"> <li>The project members from Lao side at central level performed strong leadership for planning of the first pilot project.</li> <li>Coordination between the project members at central level and provincial level was smooth.</li> <li>The project members from BKO visited Japan through the training in Japan, and learned riverbank protection works taken in Japan.</li> <li>The project members from Lao side gained experience in regard to data collection and market research for cost estimation.</li> </ul>	<p>Travel expenses for the participants from Lao side to the two seminars were born by Japanese side. Meanwhile, accommodation and daily-allowance was made available by Lao side.</p>
Output 2	
<ul style="list-style-type: none"> <li>The project members from Lao side were able to prepare appropriate design of the riverbank protection works for BKO.</li> <li>The project members from Lao side performed the role of supervisor at construction site under the guidance of the Japanese experts.</li> <li>Appropriate riverbank protection measures were applied in the pilot area.</li> <li>By default, the project members who are in charge of the pilot project in BKO gained on-site experience owing to low performance of the contractor, which was selected in BKO.</li> </ul>	<ul style="list-style-type: none"> <li>Technical level of the contractor hired in BKO is low compared to the contractor in Vientiane. Moreover, the contractor did not fully follow instruction of the Project. Hence, the design prepared by the Project was not exactly realized.</li> <li>Construction work is temporarily put on hold. The estimated date of construction completion will be slightly delayed.</li> </ul>
Output 3	
<p>Monitoring of the riverbank protection works installed in Phase I was conducted. In the area such works are still installed, positive impact was found. Local community members are enjoying fishing along the protected riverbank.</p>	<p>Documentation such as a final construction report (draft version) prepared by the contractor is not yet made.</p>
Output 4	
<ul style="list-style-type: none"> <li>The Project disseminated basic information regarding low cost and environmentally friendly riverbank protection measures to all provinces.</li> <li>Various manuals are under development both in English and Lao language for wider dissemination purpose.</li> <li>Lecture on waterways was given at university in Vientiane.</li> <li>The contractor hired in BKO understood the purpose of low cost and environmentally friendly riverbank protection measures.</li> </ul>	<ul style="list-style-type: none"> <li>Travel expenses for the participants from Lao side to the two seminars were born by Japanese side.</li> <li>Other development partners such as the World Bank and Asian Development Bank were not fully aware of the Project. Both institutions play important roles in the field of development in Laos. Close collaboration and information sharing is found to be weak at the time of mid-term review.</li> </ul>

Based on the progress shown above, the achievement level of the outputs is fair. It is expected that the project members from Lao side achieve the target score (75 points) by the end of project period.

## 4.2 Project Purpose

Project purpose: The staff of the target group will be able to implement low cost and environmentally friendly protection measures against riverbank erosion.

The Project has not yet achieved the project purpose, which is acceptable to the Team since the Project has two more years until the project termination. According to the results of interviews conducted to the project members, DoW as well as DPWT at provincial level played important roles during project implementation to execute the project activities as planned. Similarly, the project members from Japanese sides provided adequate and timely assistance to the Project.

The Project is currently implementing the first pilot construction in BKO. Low-cost and environmentally friendly riverbank protection methods are applied to the design of the construction. The project members from Lao side are enhancing knowledge and know-how regarding riverbank protection methods through On-the-Job-Training (OJT) from the Japanese experts. The Project is preparing necessary manuals both in English and Lao language.

The following conditions will have to be met for increasing achievement level of the project purpose:

- Adequate funding and qualified staff members are allocated to DoW, in particular to Riverbank Protection and Flood Control Division and concerned DPWT provincial offices.
- All concerned ministries/departments/divisions at central and local (i.e., province, district, village cluster and village) levels cooperate for effective riverbank protection.

## 4.3 Overall Goal<sup>4</sup>

Overall goal: The other provincial DPWT staff, besides the target group, will be able to implement low cost and environmentally friendly protection measures against riverbank erosion.

Up to the time of mid-term review, the Project organized two seminars in VTE in 2011 and BKO in 2012. DPWT staff members from all provinces participated in the seminars. It can be said that the Project is contributing to wider dissemination of low-cost and environmentally friendly riverbank protection measures in Laos.

As long as the GOL will not make drastic changes to the current high priority given to riverbank

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<sup>4</sup> According to JICA, achievement level of the project's overall goal is assessed after three to five years from the time of project termination.

protection activities in the coming years, the project outputs are going to contribute to protect riverbanks effectively in Laos by applying methods introduced to Laos via the Project even after the project termination.

#### 4.4 Crosscutting implementation process

##### (1) Monitoring and decision making

Monitoring activities are part of the project plan. During the project implementation, the project members are reporting the project's progress to JICA and the JCC members by ways of meetings and reports.

In the Projects, JCC meeting is held at least once a year. The followings are the main functions of JCC:

- To approve the annual work plan formulated by the Project
- To review the overall progress and achievements of the Project and activities carried out in annual work plan(s) prepared in the Project
- To review and exchange opinions on any issues that may arise from or concerning the Project

During the mid-term review, the Team discussed with DMH and the Project for adding DMH as a JCC member. Both DMH and the Project agreed to the request. The main reason for requesting DMH to join the Project is to enhance cooperation mechanism in sharing data such as water level and discharge data of Mekong River. The planned and actual JCC members are shown in Table 8.

Table 8 List of JCC members – at the time of mid-term review

Position	R/D (July 2010)	Actual (May 2012)
Chairperson	Minister, MPWT	No change
Co-chairperson	Director General, Department of Planning and Cooperation, MPWT	No change
Co-chairperson	Director General, DoW, MPWT	No change
Co-chairperson	Chief Representative, JICA Laos Office	No change
Member – Lao side	Representative(s), Bank Protection and Flood Control Division, DoW, MPWT	No change
Member – Lao side	Representative(s), Planning and Disbursement Division, DoW, MPWT	No change
Member – Lao side	Deputy Director, Road and Bridget Unit, DPWT, BKO	Deputy Director (responsible for Waterways Administration Unit), DPWT, BKO
Member – Lao side	Head of Road and Bridge Unit, DPWT, LPB	Deputy Director (responsible for Waterways Administration Unit), DPWT, LPB

Member – Lao side	Director General, DPWT, BLM	No change
Member – Lao side	Representative(s), DPWT, VTE	No change
Member – Lao side	Representative(s), Department of International Cooperation, MPI	No change
New Member – Lao side	N.A.	Representative(s), Department of Meteorology and Hydrology, Water Resource and Environment Administration
Member – Lao side	Other official(s) mutually agreed upon	No change
Member – Japanese side	Japanese experts	No change
Member – Japanese side	Representative(s), JICA Laos Office	No change
Member – Japanese side	Other relevant person(s) mutually agreed upon	No change

Note: In the R/D, it is said that the members of the JCC may appoint their substitution to attend the JCC meeting(s).

Documentation in the course of the project implementation is important and necessary. According to the interviews to the project members, the Team found that documentation of lessons learned throughout the implementation process from planning, designing, construction and other steps are not documented – apart from project progress reports prepared by the Japanese experts for submission to JICA.

## (2) Communication

According to the experts and the project members from Lao side, there were no major problems regarding communication in the Project. At the same time, the project members from Lao side expressed the needs for English-skill enhancement. Although the purpose of the Project is not focused on English language enhancement, it is one of the important skills to be strengthened especially at central level to acquire new skills/technology. Most of literature available for riverbank protection is written in English. High level of English language skill is desirable for better understanding of materials and manuals developed in the Project. Similarly, intermediate level of English language skill is needed for effective communication among the project members because neither Japanese nor Lao language is spoken as the mutual language used in the Project. For effective transfer of knowledge/technology from Japanese side to Lao side in the remaining project period, placement of an interpreter (i.e. English-Lao) may be sought by the Project.

Based on the interviews to the World Bank and Asian Development Bank, it was found the persons in other development partners who are in charge of projects related to riverbank protection were not aware of the Project. It is important that other development partners recognize efforts made by JICA and DoW in the field of riverbank protection. Therefore, the Project is expected to enhance ways and/or frequency in information exchange/dissemination between the Project and other projects that have riverbank protection component.

## 5. Evaluation results<sup>5</sup>

### 5.1 Relevance

The relevance of the Project is high since the project objectives not only remain consistent with the development policy but also are in line with needs of the GOL. Similarly, the Project is consistent with the assistance policy of the GOJ for Laos at the time of mid-term review. JICA follows the policy of the GOJ, and develops its assistance strategy for Laos.

According to the Seventh Five-Year National Economic Development Plan 2011-2015 (NSEDP 2011-2015) issued in October 2011 by the Ministry of Planning and Investment (MPI), measures for achieving socio-economic development, industrialization and the modernization towards the year 2020 are stated. It is also expected to create new changes through taking firm steps in order to graduate from the Least-Developed Country status by 2020. Similarly, it emphasizes the importance of widen and deepen regional and international integration. NSEDP 2011-2015 is a continuation of the dynamic plan "Boukthalu Plan (Break through Strategy)", which consists of the following four dynamic objectives; 1) mind set, 2) human resource development, 3) mechanism, regime, administrative rules, and 4) poverty reduction by mobilizing resources, implementing special policies, and constructing strategic basic infrastructure including riverbank protection works. NSEDP 2011-2015 aims to accelerate national economic growth and to maintain the country's stability and security.

According to Japan's Country Assistance Program for Lao P.D.R. issued by the GOJ in 2006, there are two types of assistance namely grant aid, technical cooperation and loan. According to the Program, there are two basic policies. One is to support the self-help efforts of Laos for the poverty reduction and human development. The other is to support Lao's efforts towards realizing voluntary, independent, and sustainable economic growth, with a view to integrate into the global and regional economics. In addition, three goals of assistance were illustrated in the Project. One of them is to support foundation building for the economic growth with a view to promoting economic growth constituting the driving force for independent sustained growth. To realize the said goal, development of socioeconomic infrastructure is given high importance by utilizing Japan's experience and expertise. JICA similarly developed its assistance plan for Lao P.D.R. Under JICA's plan, the Project is considered under assistance for urban infrastructure development and measures for environmental and climate change issues. In Japan, the governmental organizations at central and local levels have been taking riverbank protection measures for disaster for a long time. Knowledge, experience and know-how on

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<sup>5</sup> JICA applies the following ratings: high, relatively high, fair, relatively low, and low.

riverbank protection developed in Japan are relevant and transferable to Laos. In addition, Japan has appropriate human resources in the field of river engineering including riverbank protection to assist the GOL to develop capacity of staff members under DoW and DPWT.

## **5.2 Effectiveness (Prospects)**

The effectiveness of the Project is going to be relatively high since the project purpose is expected to be achieved by the end of project period. However, there are rooms for improvement in particular to 1) allocation of adequate funds for carrying the planned activities, and 2) coordination and communication among the project members, with staff members of DoW as well as other development partners that are working in the field of riverbank protection. Wider dissemination and coordination in regard to the Project will contribute to raising awareness of low-cost and environmentally friendly riverbank protection measures, which are introduced to the Project. Similarly, collaboration mechanism between DOW and DMH sought to be strengthened and institutionalized to plan ways for effective riverbank protection along Mekong River using data collected and monitored by DMH.

The Project is implementing the planned activities as per the Plan of Operation. It is expected the project activities will be implemented as planned until project termination.

JCC is meeting once a year to monitor the project progress and provide advisory as needed to ensure effective project implementation. DMH is a key partner to DoW in effective riverbank protection and flood control. Hence, the Team requested to the Project for adding DMH as new JCC member. During the mid-term review, the JCC members assured to support the Project throughout the project period.

There was no problem in regard to dispatch of experts as well as equipment procurement from Japanese side. Counterpart training in Japan was conducted as planned (i.e. one in 2011, and another to be conducted in 2012). Participants of the training in Japan gave the following feedback to the Team:

- the content of training course (waterways management) was relevant.
- seeing various measures taken to protect riverbank in Japan was an eye opener.

## **5.3 Efficiency**

The achievement levels of the outputs are relatively high since the Project is carrying out the activities as planned for the most part.



The inputs from Japanese side have been provided as stated in the R/D for the most part. Upon the proposal made by the project members from Japanese side, the number of experts dispatched to Laos from Japanese side was increased. From view point of Lao side, there is no major concern in regard to the inputs provided by Japanese side. According to the project members from both Lao and Japanese sides, knowledge and experience transferred from Japanese side to Lao side have been appropriate and useful. Similarly, training in Japan was "excellent learning opportunity to learn methods applied for riverbank protection in Japan" to Lao side.

One Lao national expert was dispatched from Japanese side in the first year of project implementation. He played a critical role for assuring smooth communication between the two sides during project implementation. There were some obstacles faced by the Project due to reasons such as language, cultural and other factors up to now.

The inputs from Lao side have been provided to the Project as planned for the most part. At the first two months of the project implementation, there was some confusion in regard to assignment of the planned project members from Lao side, in particular to the members from DoW. With the intervention of the project director, this confusion was clarified. As a result, more officers were assigned to the Project. Hence, the number of project members from Lao side met the R/D. At the time of mid-term review, there is no issue regarding the assignment of the project members from Lao side.

The Project is involving DPWT at provincial level to promote low-cost and environmentally friendly riverbank protection method such as SODA method. It is expected DPWT works closely with technical staff at provincial level and below for sharing of low-cost and environmentally friendly riverbank protection measures introduced in the Project in a systematic manner under the leadership of DoW.

#### **5.4 Impact (Prospects)**

The Project has two more years to build a firm foundation to introduce low-cost and environmentally friendly riverbank protection method besides groyne in Laos. Although it may be too early to assess the project impact at the time of mid-term review, there are some indicators that contribute to achievement of the overall goal of the Project:

- Dissemination of information: two seminars conducted in the Project included government officers who are working in DPWT outside the three pilot provinces. In the future, similar seminars are expected to be organized by Lao side, so that various low-cost and environmentally friendly measures for riverbank protection are introduced to Lao side

under the Project. Systematic dissemination mechanism is not yet established, but is needed Training centers operated by MPWT and DoW can be sought as effective means for dissemination of information.

- Community mobilization: low-cost and environmentally friendly riverbank protection method applied in the Project demonstrated employment opportunities at local level. During construction phase, local community members (both male and female) are hired as daily-wage labor. Similarly, fishing in the protected area under the Project including the area worked in Phase I, is made possible owing to SODA mattresses.
- Coordination with the Japanese expert (Planning advisor): Japanese expert who plays a role of Planning advisor to the Cabinet Office in Infrastructure Development

According to the project members from both sides, there are some concerns in order to achieve the project purpose and the overall goal. The followings are the concerns, which the Project is expected to resolve before project termination:

- Funds to carry out activities: DoW applied low-cost and environmentally friendly method in one area in Vientiane City (length of approximately 410 meters) under Phase I. Actual availability of budget at central and provincial levels to implement riverbank protection activities using methods introduced by the Project besides groyne is limited at the time of mid-term review.
- Limited capacity of contractors: Contractors in Laos are fairly new to the riverbank protection measures introduced by the Project (excluding groyne). Hence, technical capacity of contractors is limited, and there is a need for capacity development of the contractors.
- Operation and maintenance: Operation and monitoring activities for riverbank protection measures taken need to be made periodically. Up to now, DoW and DPWT put more focus on physical construction for protection from riverbank erosion. There is very little or no budget is allocated for operation and maintenance by MPWT up to now. Adequate funds are necessary for operation and maintenance.
- Formation of national long-term implementation plan: M/P for DoW is drafted, which captures financial figures required for implementation of riverbank protection works throughout the country. It is currently under review by MPWT Minister. Firstly, the M/P needs to be approved by the Minister. Secondly, a national long-term river improvement plan needs to be developed. The plan is expected to cover ways forward of DoW including assessment of erosion status throughout the country, design of return-period, prioritization of river improvement, and others as needed based on technical and scientific evidence.

## 5.5 Sustainability (Prospects)

Sustainability was assessed with view point of the following aspects: (1) organizational and policy aspects, (2) technical aspect, and (3) financial aspect. Based on the assessment below, sustainability of the Project is fair at the time of mid-term review.

### (1) Organizational and policy aspects

DoW was established in 2008, which is encouraging and demonstrating clear and strong leadership of the GOL in regard to better management of waterways in Laos. According to the Director General of DoW, master plan for DoW is under review by the Minister of MPWT. When the plan is approved by the Minister, DoW will have a concrete foundation for ways forward. Although legislations of waterways are not yet fully in place in Laos, DoW is making efforts to mainstream riverbank protection works. In terms of the organizational structure of DoW, number of staff members to carry out necessary development of waterways throughout the country is limited. Hence, prioritization of development requirements needs to be made. Both central and local offices under DoW are highly committed to take measures for riverbank protection. As a result, the Team assessed that sustainability of the Project from organization and policy aspects is going to be relatively high.

### (2) Technical aspect

According to the project members from Lao side as well as the members from Japanese side, capacity of the Lao side is improving owing to the project implementation. Similarly, they believe that levels of their technical expertise are being enhanced, although there are some rooms for improvement given that the project has two more years before the project termination. In particular to techniques regarding monitoring as well as operation and maintenance need to be developed by the Lao side in the coming two years. Therefore, sustainability of the Project from technical aspect is going to be fair at the time of mid-term review.

### (3) Financial aspect

The Team understood that annual budget allocated to DoW is increasing each year since its establishment in 2008 (LAK 21,000,000,000.00 for October 2009 to September 2010 and LAK 23,000,000,000.000 for October 2011 to September 2012). According to Lao side, funds allocated to DPWT at provincial level are expected to increasing. Cost share for implementation of three pilot projects in the Project is planned as shown in Table 9.

Table 9 Cost-sharing chart under the Project

Pilot Project	Japanese Side (%)	Lao Side (%)
BKO	70	30
BLM	50	50
LPB	30	70

JICA has been assisting MPI through technical cooperation over the years for effective budget planning. According to the Japanese experts dispatched to the Project for Enhancing Capacity in Public Investment Program Management Phase III (PCAP III)<sup>6</sup>, the GOL is working towards effective and appropriate budget allocation. One of the objectives of PCAP III is to plan and allocate appropriate funds for Operation and Maintenance during budget preparation and review. If this effort is realized, DoW and DPWT will have increased funds for operation and maintenance for riverbank protection measures.

Based on the interviews to the project members from Lao side, the Team understood that the GOL will make efforts to allocate adequate funding to continue riverbank protection works throughout the country using low-cost and environmentally friendly methods when/as needed even after project termination. In particular, Riverbank Protection and Flood Control Division in DoW at central level as well as DPWT at provincial level, Lao side expressed that additional funding support from the Government at central level is needed to expand protected area from riverbank erosion. It is difficult to foresee sustainability of the Project from financial view point without clear evidence, so that the Team assessed that it is expected to be fair at the time of mid-term review particularly since funding requirements for DoW sometimes depends on availability of funds from development partners and/or private investment.

## 6. Conclusion

Based on the results of five evaluation criteria as shown below, the Team assessed the achievement level of the project purpose is relatively high although sustainability of the Project is fair. The followings are the results of the criteria at the time of mid-term review:

- Relevance of the Project is high.
- Effectiveness of the Project is relatively high.
- Efficiency of the Project is relatively high.
- Some positive impacts are found although there are hindering factors for achieving the overall goal after project termination.
- Sustainability of the Project is fair.

<sup>6</sup> MPI and Department of Planning and Investment are the direct beneficiaries of PCAP III.

## 7. Recommendations

- 1) Importance of producing manuals in Lao language: It is highly evaluated to utilize the manuals produced in the Project. From view point of disseminating the project outputs in provinces other than the pilot provinces, translation of the manuals in English into Lao language is planned as part of the project activities. Such translation work will contribute to better understanding of each step taken during the project implementation from technical and management view point. Hence, it is highly recommended that the project members from Lao side become fully responsible of physical translation work by themselves.
- 2) Importance of utilization of the lessons learned from pilot projects: In BKO, almost all of the construction activities are finished. After the construction completed, monitoring and maintenance activities will start. It is suggested to utilize the lessons learned from the pilot project in BKO such as planning survey, bidding, contracting with constructor, supervising the construction, monitoring and maintenance for next pilot project activities. It is important to document the lessons learned from the pilot project by the project members from Lao side, themselves, in order to utilize them for the better activities.
- 3) Promotion of involving DPWT staff member for planning and survey: In BKO, the project members from central level led the planned activities. Coordination between the project members at central level and provincial level was well managed. Hence, the current implementation structure followed in the Project is considered as a good implementation model. From view point of implementation of the same or similar activities in provinces other than the pilot provinces, it is suggested to promote more involvement of the project members at provincial level especially for activities related to planning and surveys.
- 4) Importance of effective communication: To improve effectiveness of the project implementation, organization of roundtable meeting(s) with the Project Director, relevant senior staff members of DoW, JICA expert dispatched to MPWT, and the other project members are suggested to design a long-term strategy of DoW.
- 5) Importance of securing adequate budget:
  - (1) This is the first trial for JICA to conduct cost sharing with the GOL through the technical cooperation project. It is assessed highly that the construction cost is secured properly by Lao side as well as Japanese side. From view point of the project's sustainability, it is important to secure adequate budget for capacity development and implementation of necessary activities under the Project such as travel expenses for attending seminars, conducting surveys and monitoring.
  - (2) It is important to secure adequate budget for maintenance from view point of sustainability even though there is the guarantee period of one year after construction completion in the contract used in the Project. The contract becomes no longer

responsible for any repair works after one year after the project termination.

- 6) Importance of institutionalizing a system for capacity development: It is important to promote establishment of a system for capacity development since GOL aims to develop capacity of government staff members including MPWT and DPWT. Although capacity development of staff members in DoW continues to be not only an urgent matter, but also a long-term goal for DoW. In order to achieve the overall goal, it is expected to utilize the lessons learned from the low cost and environmentally friendly protection measures against riverbank erosion introduced from Japanese side. Likewise, the outcomes from the Phase I and II are expected to be referred by DoW. For instance, utilizing the manuals and the materials for lecturing produced by Phase I can be used in training courses planned and conducted in the Public works and transport training centre. If not, it is suggested that these documents are made available when DPWT staff members are called for workshops/seminars on river management at DoW as well as MPWT.

#### 8. Lessons learned

- 1) Cost sharing leading to increase the ownership of the counterparts and the project's sustainability: MPWT secured construction cost properly. It is expected that the rate of cost sharing will be enlarged for Lao side in the next two years. It is highly recognized from view points of the counterparts' strong ownership and the project's sustainability.
- 2) Effectiveness to other sectors: the measures introduced by the Project are low cost and environmentally friendly. Furthermore, these measures are contributing for increase of fish in the Mekong River, where the riverbank protection measures were applied with assistance from Japanese side. Similarly, the measures are not only creating employment opportunities at local level, but also functioning properly to reduce riverbank erosion. Female community members in an area that the riverbank protection measures were taken worked as on-site construction workers. Therefore, this finding is highly valued from a view point of gender. These measures are good examples to meet both the original purpose and other purposes related to gender and employment issues.

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## Project for Riverbank Protection Phase 2

## Evaluation Grid

Item	Evaluation Question		Source of Information
	Main Question	Sub-Question	
Relevancy	Relevance of priority	Are the overall goal and the purpose of the Project consistent with national strategy/plan/policy of the Government of Lao PDR?	<ul style="list-style-type: none"> <li>National plan(s) of the Government of Lao PDR</li> <li>Policy document(s) and plan(s) related to riverbank protection prepared by DoW as well as DPWT if any.</li> <li>Interview to the JCC members</li> </ul>
	Relevance of needs	Does the Project meet the needs of the Government of Lao PDR?	<ul style="list-style-type: none"> <li>Interview to the JCC members</li> <li>Interview to the project members from Lao side</li> </ul>
	Commitment of Lao side	Is the commitment level from Lao side for successful project implementation high?	<ul style="list-style-type: none"> <li>Interview to JICA Lao Office</li> <li>Project progress report(s)</li> <li>Interview to the JCC members</li> </ul>
	Relevance to the Japanese ODA policy	Are the overall goal and the purpose of the Project consistent with Japanese ODA policy of for Laos?	MOFA and JICA strategy/policy documents related to Laos
	Relationship with other development partner(s)	Are there comparability/synergy between the Project (JICA) and other development partner(s) in the field of riverbank protection in Laos?	<ul style="list-style-type: none"> <li>Interview to the project members from Lao side</li> <li>Interview to other development partners(i.e., WB, ADB, KOICA)</li> </ul>
	Advantage of Japanese technology	Do the Japanese experience, technology, techniques have the comparative advantage?	Project preliminary study report
Effectiveness	Prospect of achieving the project purpose	What is the possibility of achieving the project purpose before project termination?	<ul style="list-style-type: none"> <li>Project progress report(s)</li> <li>Interview to the Japanese experts</li> <li>Interview to the project members from Lao side</li> </ul>
		What are the special measures taken in order to achieve the project purpose, if any?	<ul style="list-style-type: none"> <li>Interview to the Japanese experts</li> <li>Interview to the project members from Lao side</li> </ul>
	Adequacy of cause/effect of the project purpose, outputs and external factors/important assumption(s)	What is the achievement level of the project purpose in relation to achievement levels of the expected outputs and external factor(s)/important assumption(s)?	<ul style="list-style-type: none"> <li>Interview to the Japanese experts</li> <li>Interview to the project members from Lao side</li> </ul>
		What are the external factor(s) and important assumption(s) in regard to the Project?	<ul style="list-style-type: none"> <li>Project progress report(s)</li> <li>Questionnaire</li> </ul>
	Project management structure	Are the monitoring structure, decision making structure, and communications adequate/appropriate?	<ul style="list-style-type: none"> <li>Questionnaire</li> <li>Interview to the Japanese experts</li> <li>Interview to the project members from Lao side</li> </ul>

Item	Evaluation Question		Source of Information
	Main Question	Sub-Question	
	Factor(s) might affected the achievement of the project purpose	Are there any promoting factors for achieving the project purpose?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
		Are there any hindering factors for achieving the project purpose?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
Efficiency	Achievement level of Outputs	Are the expected outputs going to be realized as planned?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
		Is each output contributing to achieve outcome(s) of the Project?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
		Are the verifiable indicators set for the outputs adequate?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
		How are the manuals developed in the Project utilized by Lao side?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
	Timing of implementation of project activities and placement of inputs	Are the dispatch timing of Japanese experts and other inputs adequate?	<ul style="list-style-type: none"> <li>• Project progress report(s)</li> <li>• Questionnaire</li> </ul>
		Is the placement of the project members from Lao side timely and adequate?	<ul style="list-style-type: none"> <li>• Project progress report(s)</li> <li>• Questionnaire</li> </ul>
		How is the procurement process of contractors managed?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the project members from Lao side</li> </ul>
	Appropriateness of quantity, quality, and time of inputs	Experts, project members from Lao side	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
		Equipment	<ul style="list-style-type: none"> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
		Training in Japan	<ul style="list-style-type: none"> <li>• Project progress report</li> <li>• Interview to the participants of training in Japan</li> </ul>
	Compliance	What the Compliance policy of the Government of Lao PDR?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the project members from Lao side</li> </ul>



Item	Evaluation Question		Source of Information
	Main Question	Sub-Question	
	Contributing and/or hindering factor(s) to increase efficiency	Are there any contributing factor(s) to increase the project efficiency?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
		Are there any hindering factor(s) to increase the project efficiency?	<ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview to the Japanese experts</li> <li>• Interview to the project members from Lao side</li> </ul>
	Collaboration with other ODA project	Were there any collaboration/ coordination with other JICA project(s), assistance of the Japanese Government, and/or other development partner(s) in the same or similar field?	<ul style="list-style-type: none"> <li>• Interview to the Japanese Experts</li> <li>• Interview to the project members from Lao side</li> <li>• Interview to any other concerned person(s)</li> </ul>
Impact	Prospects of achieving the overall goal in 3-5 years after project termination	Is the achievement of the overall goal of the Project high?	<ul style="list-style-type: none"> <li>• Interview to the project members from Lao side</li> <li>• Questionnaire</li> </ul>
		What are the external factors and the important assumptions?	<ul style="list-style-type: none"> <li>• Interview to the project members from Lao side</li> <li>• Questionnaire</li> </ul>
Sustainability	Organizational and policy aspects	Are the policies/act(s)/system(s) to sustain the project effects adequately in effect/place?	<ul style="list-style-type: none"> <li>• Interview to the project members from Lao side</li> <li>• Questionnaire</li> </ul>
	Human resource aspect	Is it like that that Lao side will allocate adequate person(s) to sustain the project effects after project termination?	<ul style="list-style-type: none"> <li>• Interview to the project members from Lao side</li> <li>• Questionnaire</li> </ul>
	Financial aspect	Is it likely that Lao side will allocate adequate funds to sustain the project effects after the project termination?	<ul style="list-style-type: none"> <li>• Interview to the project members from Lao side</li> <li>• Questionnaire</li> </ul>
	Technical aspect	Is the technology/technique(s) required for Lao side to sustain the project effects by itself adequately developed?	<ul style="list-style-type: none"> <li>• Interview to the project members from Lao side</li> <li>• Questionnaire</li> </ul>
	Lessons learned from Phase 1	What are the lessons learned from Phase 1 to secure project sustainability?	<ul style="list-style-type: none"> <li>• Interview to the Japanese Experts</li> <li>• Interview to the project members from Lao side</li> <li>• Interview to any other concerned person(s)</li> </ul>

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## Schedule of Mid-term Evaluation

month	date	day	Evaluator Ms.Mitani	Ms.Tanaka	Mr.Kikuta	Mr.Miyamoto	Accomodation
1	May	8	Tue	Dept Narita Arr.Vientiane by flight TG574			Vientiane
2	May	9	Wed	10:00 JICA Expert Mori 13:30 JICA Project Experts 16:00 Meeting with Mr. Balance FRIELIANK, Deputy Country Director of ADB and Mr. Phomma, Senior Program Officer			
3	May	10	Thu	9:00 JICA Laos office 10:00 Counterpart 14:00 Meeting with Mrs. Souvanny, Deputy Director General of DMH			
4	May	11	Fri	8:15 Leave from the hotel to MPWT 8:30 arrival at MPWT 8:35 move to Bolikhamxay (site survey hearing to C/P) 16:00 Leaving from Bolikhamxay to Vientiane by car			
5	May	12	Sat	Evaluation Reporting			
6	May	13	Sun	Evaluation Reporting			
7	May	14	Mon	Hearing to C/P Hearing to Experts			
				Dept Narita Arr.Vientiane			Bokeo
8	May	15	Tue	9:10 Leave from the hotel to Department of Waterways (DoW), MPWT 9:30 Interview to Mr. Houngla, DG of DoW, MPWT 11:00 JICA Laos Office with Ms.Hattori 13:30 Hearing to C/P / Hearing to Experts 14:30 Site Visit in Vientiane			
9	May	16	Wed	8:10 Leave from the hotel to the WB office 8:30 Meeting with Mr. Sombath, Senior Infrastructure Specialist of WB 10:00 Arrival at the airport 11:00 leaving for Bokeo by flight QV901 15:00 Interview to Mr.Udom, the deputy director, DPWT			
10	May	17	Thu	9:00 site survey in Bokeo 10:00 Interview to C/P, Experts 14:00 Interview to Constructor 15:00 Discussion on PDM with C/P			
11	May	18	Fri	9:30 Courtesy call to Director, DPWT 12:35 back to Vientiane by flight QV902 15:00 Discussion with Mr.Mori			Vientiane
12	May	19	Sat	Evaluation Reporting			
13	May	20	Sun	Evaluation Reporting/ meeting with evaluation team			
14	May	21	Mon	9:00 meeting with evaluation team 11:00 Report to JICA Laos office (CR, SR, R) 14:00 Discussion with C/P modify the report			
15	May	22	Tue	8:30 Discussion with C/P modify the report 13:30 Site Visit in Vientiane			
16	May	23	Wed	9:30 Discussion with Mr. Houngla, DG of DoW, MPWT / Preparation for JCC			
17	May	24	Thu	9:30 JCC and conclusion of MM / Dept Vientiane			
18	May	25	Fri	Arrival Narita			-

PROJECT DESIGN MATRIX (PDM) version-1

Project Title: Project on Riverbank Protection Works Phase II

Target Area: Vientiane Capital, Bokeo Province, Luangprabang Province, and Bolikhamxay Province

Target Group: DoW, MPWT and DPWT Vientiane Capital, DPWT Bokeo Province, DPWT Luangprabang Province, and DPWT Bolikhamxay Province

Pilot Project Provinces: Bokeo Province, Luangprabang Province, and Bolikhamxay Province

Annex 3

Project Period: Oct 2010 - Oct 2014

Narrative Summary		Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal	The other provincial DPWT staff, besides the Target Group, will be able to implement low cost and environmentally friendly protection measures against riverbank erosion.	Riverbank protection works will be implemented at least one province other than the Target Group.	Report on riverbank protection works	The Budget for Riverbank Protection Works are allocated properly.  The organizations for Riverbank Protection Works are set up in the province other than the Target Group.
Project Purpose	The staff of the target group (hereinafter referred to as "the Staff") will be able to implement low cost and environmentally friendly protection measures against riverbank erosion.	Riverbank protection works will be implemented a total of at least three sites in the Pilot Project Provinces.	Completion report Field investigation	The counterpart personnel of the Target Group will not resign.  The materials and equipments needed for the Riverbank Protection Works can be prepared stably in Lao P.D.R..
Outputs	<ol style="list-style-type: none"> <li>1 Capacity of the Staff on survey and planning for riverbank protection works is improved.</li> <li>2 Capacity of the Staff on design and construction for riverbank protection works is improved.</li> <li>3 Capacity of the Staff in on monitoring, maintenance, and evaluation for riverbank protection works is improved.</li> <li>4 The Staff acquire the wider knowledge on river engineering that contributes to more effective and efficient riverbank protection measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. All the C/P staff scores 75 points when the Japanese experts evaluate abilities related to the survey and planning technique on the riverbank protection through OJT.</li> <li>2. All the C/P staff scores 75 points when the Japanese experts evaluate abilities related to the design and construction on the riverbank protection through OJT.</li> <li>3. All the C/P staff scores 75 points when the Japanese experts evaluate abilities related to the monitoring, evaluation and maintainance on the riverbank protection through OJT.</li> <li>4. All the C/P staff scores 75 points when the Japanese experts evaluate abilities related to the river management and river engineering on the riverbank protection through OJT.</li> </ol> <p>NOTE: Evaluation of the ability improvement of the C/P will be made based on an evaluation criteria which is prepared after the Project started. The evaluation criteria is decided as "Evaluation Criteria for Level of Understanding"</p> <ul style="list-style-type: none"> <li>•50 points indicates the capacity level of fair (requires some guidance from Japanese expert(s).</li> <li>•75 points indicates the capacity level of self-sufficiency as relatively high</li> <li>•100 points means the capacity level of excellent.</li> </ul>	<ol style="list-style-type: none"> <li>1-1 OJT Report</li> <li>1-2 Survey Result</li> <li>1-3 Final Test</li> <li>2-1 OJT Report</li> <li>2-2 Report from Expert</li> <li>2-3 Final Test</li> <li>3-1 OJT Report</li> <li>3-2 Monitoring, Maintenance, and Evaluation Sheet</li> <li>3-3 Monitoring Manual</li> <li>3-4 Final Test</li> <li>4-1 Training Report</li> <li>4-2 Final Test</li> </ol>	The constructor for the pilot project will be selected based on the appropriate procedure.
Activities*1	<ol style="list-style-type: none"> <li>1-1 Survey on riverbank erosion in the three (3) provinces of Bokeo, Luangprabang, and Bolikhamxay is conducted.</li> <li>1-2 Areas which should take prevention measures for riverbank erosion are prioritized at each of the three (3) provinces in consideration of the present situation of bank erosion and hinterland.</li> <li>1-3 Riverbank protection measures suitable to the characteristics of each erosion site are selected from all possible options including recent construction methods along with traditional ones.</li> <li>1-4 One pilot project site of riverbank protection works in each of the three (3) provinces is selected.</li> </ol>	<p>Input</p> <p><u>Japan Side</u></p> <ol style="list-style-type: none"> <li>1. Dispatch short-term experts from Japan(6persons)</li> <li>2. Provision of machinery and equipment</li> <li>3. Training of Lao personnel in Japan</li> <li>4. Budget for construction at pilot sites</li> </ol> <p><u>Lao Side</u></p> <ol style="list-style-type: none"> <li>1. Counterpart Personnel</li> <li>1)MPWT</li> <li>2)DPWT</li> </ol>		The organization for the Riverbank Protection Works will be set up in the Target Group.

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Appendix-1-43

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
1-5 Trainings and seminars on survey and planning of riverbank protection works are organized.	2.Facility 1)Permanent office space		
1-6 Manual for Survey and Planning is prepared.	2)Space for accomodating the construction material, vehicle, and equipment 3)Other facilities mutually agreed as necessary		
2-1 Detailed survey for design of riverbank protection works at the pilot project sites is conducted	3.Budget for construction at pilot sites		
2-2 Detailed design of riverbank protection works suitable for the pilot project sites is conducted			
2-3 Cost estimation for the riverbank protection works is conducted.			
2-4 Construction works of riverbank protection at the pilot project sites are supervised.			
2-5 Study and evaluation on riverbank protection works of M/P and Phase I sites in Vientiane Capital are conducted.			
2-6 Trainings and seminars on design and construction are organized.			
2-7 Manual for Design, and Construction are prepared.			
3-1 Existing monitoring manual is reviewed and revised as necessary.			
3-2 Plans for monitoring, evaluation, and maintenance for riverbank protection works in each pilot project sites are prepared.			
3-3 Monitoring for pilot project sites are conducted.			
3-4 Evaluation for the pilot project sites are conducted.			
3-5 Maintenance and repair for the pilot project sites are conducted as necessary.			
3-6 Trainings and seminars on monitoring, maintenance, and evaluation are organized.			
3-7 Manual on monitoring, maintenance, and evaluation is prepared and revised.			
4-1 Trainings on river engineering and river management for effective implementation of the riverbank protection works are conducted in both Lao P.D.R. and Japan.			

\*1: All the activities are conducted On the Job Training (OJT) basis.

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Plan of Operation version 1

Annex 4

	Year	2010										2011										2012										2013										2014																			
	Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
	season	Dry					Rainy					Dry					Rainy					Dry					Rainy					Dry					Rainy																								
<b>1. Capacity of survey and planning on riverbank protection works is improved.</b>																																																													
1-1 Survey on riverbank erosion in the three (3) provinces of Bokeo, Luangprabang, and Bolikhamxay is conducted.	[Timeline bars for 2010]																																																												
1-2 Areas which should take a prevention measures for riverbank erosion are prioritized at each of three (3) provinces in consideration of the present situation of bank erosion and hinterland.	BKO, BLM, LPB (2010); BLM (Reconfirm) (2011); LPB (Reconfirm) (2012)																																																												
1-3 Riverbank protection measures suitable to the characteristics of each erosion site are selected from all possible options including recent construction methods along with traditional ones.	BKO (2010); BLM (2011); LPB (2012)																																																												
1-4 One pilot project site of riverbank protection works in each of the three (3) provinces is selected.	BKO (2010); BLM (2011); LPB (2012)																																																												
1-5 Trainings and seminars on survey and planning of riverbank protection works are organized.	VTE (2010)																																																												
1-6 Manual for Survey and Planning is prepared.	[Timeline bars for 2010]																																																												
<b>2. Capacity of design and construction on riverbank protection works is improved.</b>																																																													
2-1 Detailed survey for design of riverbank protection works at the pilot project sites is conducted.	BKO (2010); BLM (2011); LPB (2012)																																																												
2-2 Detailed design of riverbank protection works suitable for the pilot project sites is conducted.	BKO (2010); BLM (2011); LPB (2012)																																																												
2-3 Cost estimation for the riverbank protection works is conducted.	[Timeline bars for 2010]																																																												
2-4 Construction works of riverbank protection at the pilot project sites are supervised.	[Timeline bars for 2010]																																																												
2-5 Study and evaluation on riverbank protection works of M/P and Phase I sites in Vientiane Capital are conducted.	[Timeline bars for 2010]																																																												
2-6 Trainings and seminars on design and construction are organized.	BKO (2011); BLM (2012); LPB (2013)																																																												
2-7 Manual for Design, and Construction are prepared.	[Timeline bars for 2010]																																																												
<b>3. Capacity of monitoring, maintenance and evaluation on riverbank protection works is improved.</b>																																																													
3-1 Existing monitoring manual is reviewed and revised as necessary.	[Timeline bars for 2010]																																																												
3-2 Plans for monitoring, evaluation, and maintenance for riverbank protection works in each pilot project sites are prepared.	BKO (2010); BLM (2011); LPB (2012)																																																												
3-3 Monitoring for pilot project sites are conducted.	BKO, BLM, LPB (2011-2012)																																																												
3-4 Evaluation for the pilot project sites are conducted.	BKO (2011); BLM (2012)																																																												
3-5 Maintenance and repair for the pilot project sites are conducted as necessary.	[Timeline bars for 2010]																																																												
3-6 Trainings and seminars on monitoring, maintenance, and evaluation are organized.	BKO (2011); BLM (2012); LPB (2013)																																																												
3-7 Manual on monitoring, maintenance, and evaluation is prepared and revised.	[Timeline bars for 2010]																																																												
<b>4. Wider knowledge on river engineering that is helpful to measures against riverbank erosion is attained.</b>																																																													
4-1 Trainings on river engineering and river management for effective implementation of the riverbank protection works are conducted in both Lao P.D.R. and Japan.	VTE (2010); BKO (2011); BLM (2012); LPB (2013)																																																												
<b>Others</b>																																																													
C/P training in Japan	Baseline (2010); [Timeline bars for 2010]																																																												
Ability Evaluation	[Timeline bars for 2010]																																																												
Joint Coordinating Committee (JCC)	[Timeline bars for 2010]																																																												
Project Final Report	[Timeline bars for 2010]																																																												

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Appendix-1-44

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Name	field	dispatched period	occupation
<b>First Year</b>			
Taketoshi MATSUNAGA	Chief Advisor/ River Management	Nov. 2010 to Aug. 2011	NEWJEC Inc.
Hideki OTSUKI	Vice Chief Advisor/ River Management	Nov. 2010 to May 2011	NEWJEC Inc.
Mitsuhiro TOKUSU	Geological Survey	Nov. 2010 to Mar. 2011	NEWJEC Inc.
Rokuro KOBAYASHI	River Engineering/ Riverbank Protection Planning & Design/ Topographic Survey	Nov. 2010 to May 2011	Deer Consultants Inc.
Tsutomu KAMEYAMA	Construction Supervision/ Cost Estimation	Mar. 2011 to May 2011	Yachiyo Engineering Co., Ltd.
Shingo OHASHI	Traditional Riverbank Protection/ Construction Advice	Nov. 2010 to Mar. 2011	Shidacho Construction Co., Ltd.
Ikuko KAWABATA	River Vegetation Works/ Maintenance	Feb. 2011 to May 2011	NEWJEC Inc.
Chanthavong SOUKCHALEUNE	Project Coordinator 1/ Assist. Riverbank Protection Plan & Design/ Assist. Cost Estimation	Apr. 2011 to May 2011	NEWJEC Inc.
Keiichi INOUE	Project Coordinator 2	Nov. 2010 to Mar. 2011	NEWJEC Inc.
<b>Second Year</b>			
Taketoshi MATSUNAGA	Chief Advisor/ River Management	Nov. 2011 to Aug. 2012	NEWJEC Inc.
Hideki OTSUKI	Vice Chief Advisor/ River Management	Nov. 2011 to May 2012	NEWJEC Inc.
Mitsuhiro TOKUSU	Geological Survey	Jan. 2012 to Feb. 2012	NEWJEC Inc.
Yoshihiro MIWA	River Engineering/ Riverbank Protection Planning & Design/ Topographic Survey	Nov. 2011 to May 2012	NEWJEC Inc.
Tsutomu KAMEYAMA	Construction Supervision/ Cost Estimation	Nov. 2011 to May 2012	Yachiyo Engineering Co., Ltd.
Shingo OHASHI	Traditional Riverbank Protection/ Construction Advice	Jan. 2012 to Feb. 2012	Shidacho Construction Co., Ltd.
Ikuko KAWABATA	River Vegetation Works/ Maintenance	Jan. 2012 to May 2012	NEWJEC Inc.
Sho SHIBATA	Project Coordinator 1/ Assist. Riverbank Protection Plan & Design/ Assist. Cost Estimation	Jan. 2012 to Feb. 2012	NEWJEC Inc.
Rumi KATO	Project Coordinator 2	May 2012 to May 2012	NEWJEC Inc.





Training in Japan

ANNEX 5-2

Name	Training Period	Field	Training Content	Occupation (as of the training period)	Occupation (as of 24th May)
First training in Japan					
Mr. Souksavanh THITHAVONG	2011/7/17~8/2	River and Sabo Engineering	[Site visits includes facilities etc] 1. Japanese traditional river work techniques in the Fuji River system 2. River management facilities and Japanese traditional river work techniques in the Yodo River 3. Japanese traditional river work techniques in Hokuriku region and current conservation status of "SATOYAMA"	Project Manager (Bank Protection and Flood Control Division, DoW, MPWT)	ditto
Mr. Anouxay MONGKHOUN	2011/7/17~8/2	River and Sabo Engineering	[Lectures and Practices] 1. River management in Japan (General) 2. Japanese traditional river work techniques: Types, merit/ demerit and examples of application 3. Modern river work technique: Examples and merit/ demerit (comparing to Japanese traditional river work techniques) 4. River work techniques taken consideration to environments 5. Design of river structures 6. Explanation of visited facilities	Technical Staff (Waterways Transport Division, DoW, MPWT)	ditto
Mr. Som Ock MANICHANH	2011/7/17~8/2	River and Sabo Engineering	[Organization Accepted] - JICA Tokyo - JICA Osaka - NEWJEC Tokyo Head Office - NEWJEC Osaka Head Office - Yamanashi Prefectural Disaster Prevention Center - Kinki Regional Development Bureau of MLIT - Hokuriku Regional Development Bureau of MLIT - Hokuriku Soda Business Promotion Association	Deputy Project Manager (Waterways Administration Unit, DPWT Bokeo Province)	Dispatched from DPWT Bokeo province from April 2012
Mr. Deth Oudom HEUANMISAVATH	2011/7/17~8/2	River and Sabo Engineering	[Organization Accepted] - JICA Tokyo - JICA Osaka - NEWJEC Tokyo Head Office - NEWJEC Osaka Head Office - Yamanashi Prefectural Disaster Prevention Center - Kinki Regional Development Bureau of MLIT - Hokuriku Regional Development Bureau of MLIT - Hokuriku Soda Business Promotion Association	Technical Staff (Waterways Administration Unit, DPWT Bokeo Province)	ditto
Mr. Somboun KERTKONG	2011/7/17~8/2	River and Sabo Engineering	[Organization Accepted] - JICA Tokyo - JICA Osaka - NEWJEC Tokyo Head Office - NEWJEC Osaka Head Office - Yamanashi Prefectural Disaster Prevention Center - Kinki Regional Development Bureau of MLIT - Hokuriku Regional Development Bureau of MLIT - Hokuriku Soda Business Promotion Association	Member of Joint Coordinating Committee (Deputy Director General, DPWT Bokeo Province)	ditto

Appendix 1-16

Training in Lao P.D.R.

ANNEX 5-3

Training	period	the number of participant	Target of training
Training Session and Seminar on "Survey and Planning of Riverbank Protection Works" and "River Engineering and River Management"	2011/3/2-2011/3/3	37 participants	C/P officials and nationwide DPWT provincial officers
Training Session and Seminar for "Design and Construction of Riverbank Protection Works", "Monitoring, Evaluation and Maintenance" and "River Engineering and River Management"	2012/2/2-2012/2/3	40 participants	C/P officials and nationwide DPWT provincial officers



## Procured Equipment

ANNEX 5-4

No.	Arrival	Name of equipment	type	Maker	Price(JPY)	Price(USD)	section in use	license	procurement	purpose for install	status
RSE-01	Mar. 2011	Echo Sounder	TDM-5000B	TAMAYA TECHNICS INC.	1,563,450	-	1 Unit	DoW	In Japan	River Survey	In Operation
RSE-02	Mar. 2011	Portable Propeller-Type Current Meter	MCM-1	MTPrecision Inc.	420,000	-	1 Unit	DoW	In Japan	River Survey	In Operation
RSE-03	Mar. 2011	Water Level Staff Gages (L=1m)		TAKUWA Corporation	283,500	-	60 Units	Riverbank of 3 Provinces	In Japan	River Survey	Partly In Operation
RSE-04	Mar. 2011	Total Station	TS-02 7" (2mgon)	Leica Geosystems	1,010,892	12,200	1 Unit	DoW	In Lao P.D.R.	River Survey	In Operation
RSE-05	Mar. 2011	Portable GPS	eTrex H	Garmin Ltd.	81,203	980	4 Units	DoW and 3 Provincial DPWT	In Lao P.D.R.	River Survey	In Operation
STE-01	Mar. 2011	Ya (Steel Arrow)		Shidacho Construction Co., Ltd.	88,200	-	12 Units	3 Provincial DPWT	In Japan	Soda Technique	Partly In Operation
STE-02	Mar. 2011	Takeya		Shidacho Construction Co., Ltd.	44,100	-	12 Units	3 Provincial DPWT	In Japan	Soda Technique	Partly In Operation
STE-03	Mar. 2011	Measuring Wire		Shidacho Construction Co., Ltd.	9,450	-	6 Units	3 Provincial DPWT	In Japan	Soda Technique	Partly In Operation
STE-04	Mar. 2011	Other Tool Kit		Shidacho Construction Co., Ltd.	126,000	-	3 Units	3 Provincial DPWT	In Japan	Soda Technique	Partly In Operation
OAE-01	Mar. 2011	Personal Computer	Aspire M3910	Acer	236,980	2,860	4 Units	DoW and 3 Provincial DPWT	In Lao P.D.R.	Office Automation	In Operation
OAE-02	Mar. 2011	Uninterruptible Power Supply (UPS)	UPS 1000VA	LEONICS CO., LTD.	72,917	880	4 Units	DoW and 3 Provincial DPWT	In Lao P.D.R.	Office Automation	In Operation
OAE-03	Mar. 2011	Inkjet Printer (A3 Size)	PIXMA IX5000	Canon Inc.	99,183	1,197	3 Units	3 Provincial DPWT	In Lao P.D.R.	Office Automation	In Operation
OAE-04	Mar. 2011	Digital Camera	Powershot A3000 IS	Canon Inc.	52,202	630	3 Units	3 Provincial DPWT	In Lao P.D.R.	Office Automation	In Operation
OAE-05	Mar. 2011	Computer Aided Design (CAD) Software	AutoCAD LT 2011	Autodesk, Inc.	168,869	2,038	1 License	DPWT Bokeo Province	In Lao P.D.R.	Office Automation	In Operation

calculated as USD1.00=82.86JPY

List of the project members from Lao side

Annex 5-5

Name	Occupation	Responsibility	Assigned Term	Experts	Remarks
Houngla SENGMUANG	Director General Department of Waterways Ministry of Public Works and Transport	Project Director	Nov. 2010 to Present	Matsunaga	
Souksavanh THITHAVONG	Project Manager Bank Protection and Flood Control Division, DoW, MPWT	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	Counterpart in Phase I
Phimmasone SENGSOURIYAVONG	Technical Staff Bank Protection and Flood Control Division, DoW, MPWT	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	Participate fully from April 2011
Khamphaiuy LEEFHUNG	Technical Staff Port and Navigation Channel Division, DoW, MPWT	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	Participate fully from April 2011
Anouxay MONGKHOUN	Technical Staff Waterways Transport Division, DoW, MPWT	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	
Som Ock MANICHANH	Deputy Project Manager Waterways Administration Unit, DPWT Bokeo Province	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	Dispatched from DPWT Bokeo province from April 2012

Deth Oudom HEUANMISAVATH	Technical Staff Waterways Administration Unit, DPWT Bokeo Province	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	
Kham Phong THEPKHAMHEUANG	Deputy Project Manager Waterways Administration Unit, DPWT Bolikhamxay Province	Road Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	
Khamsene PHAGAXAY	Technical Staff Waterways Administration Unit, DPWT Bolikhamxay Province	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Kameyama, Ohashi, Kawabata, Miwa	
Sombath CHAREUNPHONH	Deputy Project Manager Waterways Administration Unit, DPWT Luangprabang Province	Road Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Ohashi, Kawabata	
Nakasu SOUMPHONEPAKDY	Technical Staff Road and Bridge Unit, DPWT Luangprabang Province	Road Engineering	Nov. 2010 to May 2012	Matsunaga, Otsuki, Tokusu, Kobayashi	
Soukkasane SISOUPAN	Technical Staff Waterways Administration Unit, DPWT Luangprabang Province	River Engineering	May 2012 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Ohashi, Kawabata	
Phonesay SOULIYAVONG	Technical Staff Bank Protection Unit, DPWT Vientiane Capital	River Engineering	Nov. 2010 to Present	Matsunaga, Otsuki, Tokusu, Kobayashi, Ohashi, Kawabata	