

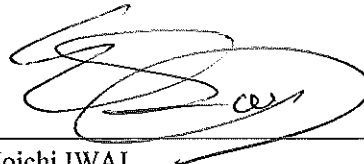
Attachment-1: Minutes of Meeting (M/M) of PCU Meetings

Minutes of Meeting
on
the 1st Informal Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

Hanoi, 30 May 2008



Dr. Do Nam Thang
Team Leader
The Vietnamese Study Team
Vietnam Environmental Protection Agency



Mr. Yoichi IWAI
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on the 4 May 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as "the Study"), the Government of Japan dispatched the Study Team headed by Mr. Yoichi IWAI through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

The 1st Informal Project Coordination Unit Meeting was started by an opening statement and chaired by the Deputy General Director of VEPA, Mr. Phung Van Vui. The JICA Study Team presented the outline of the Study described in the Draft Io/R. Then, the JICA Vietnam Office, Ms. Eiko Kojima, presented the Vietnam Urban Water Environment Management Program of JICA.

The attendants of the meeting are listed per ANNEX-1, and the agenda for the 1st Informal Project Coordination Unit Meeting is attached per ANNEX-2.

The followings are the issues and comments discussed in the meeting.

1. Mr. Phung Van Vui (Deputy Director General of VEPA; Director of the Study)

- (1) The outputs of the Study should contribute to implementation of the Cau River Basin Master Plan, and good collaboration with relevant stakeholders is one of the keys to success the Study. Also, the Study should produce applicable outputs.

The JICA Study Team (JST) commented that taking the comments above into account, JST will conduct the Study with the Vietnamese Study Team (VST).

- (2) Members of the Project Coordination Unit (PCU) will be as follows, but it will be informed to the Japanese side later on.

- 1) Head of GD (Dr. Ha)
- 2) ICD/ MONRE (Mr. Tam)
- 3) VEPA/ MONRE (VST: Dr. Thang)
- 4) Ministries Office
- 5) Thai Nguyen DONRE
- 6) Bac Kan DONRE
- 7) IET/ VAST (to be confirmed)
- 8) Cau River Committee Office (to be confirmed)
- 9) MPI (if necessary)

The JST agreed on the matters of PCU members.

2. Dr. Yasuaki Maeda (JICA Expert)

So often, many of assistance projects's outputs have not been put into place because they were not very suitable in the Vietnamese context. The JST should reflect applicable Japanese experiences on the



outputs at least. For achieving higher level of the outputs, it is necessary to meet with Vietnamese conditions. Most activity of the Study could be a desk work and would be very few of field exercise. The JST is required to clarify a level of technology transfer, and what kinds of exercises are planned in the Study.

The JST will provide opportunities of field exercises if Vietnamese counterpart (C/P) requires field exercise in line with co-working though the Study is not a technical cooperation project.

3. Mr. Ho Kien Trung (Pollution Division, VEPA/MONRE; VST member for Output 2)

- (1) When IET/VAST joins PCU as a member, its role in the Study should be clarified.

The JST replied that IET/VAST is C/P under the Urban WEM program of JICA as Ms. Kojima, JICA Vietnam Office, explained, and the JICA HQ and JICA Vietnam consider that good collaboration between VEPA/MONRE and IET/VAST will surely contribute to improve water environment of Vietnam in future.

- (2) Roles of JST and local experts in each output should be clarified.

The JST replied that the Study should be operated with co-working base between VST and JST, and JST will conduct the Study preparing a plan of operation of co-working in each output. Preparation of each output is responsible of JST in principle. As for the local experts to be hired for the Study, its role is to support activities of JST and VST and to solve actual problems on the output. This will be described in the Ic/R.

- (3) It is important to develop an electric database (DB) of pollution sources in 6 provinces in Cau river basin because MONRE should report pollution source conditions to the Prime Minister. Since a pollution source survey will be implemented from June to August 2008, its result should be compiled in the electric DB including pollution map as one of outcomes of Output-2.

The JST will prepare the electric DB of pollution sources in the Cau river model area using the DB system which VEPA currently uses, and the DB improvement will include some integration of scattered data and information in each organization.

4. Dr. Hoang Duong Tung (Director of CEMDI, VEPA/MONRE)

- (1) The Study should create applicable outputs. Practical training and transfer of Japanese experiences are required as a manner of applicable for Vietnam, but it will take a time. Therefore, it could be suspicious to develop feasible approaches to Vietnam within the working period to prepare monitoring designing guidelines by August 2008. This can be said for output-2 and output-3, too.

The JST also recognize that preparation of applicable outputs is not easy task, so JST emphasizes on importance of co-working for reflecting recommendations and suggestions of VST.

- (2) The draft Ic/R did not clearly mention about how to address point sources and non-point sources in the Study and methodologies of pollution source monitoring should vary by type of pollution and water bodies discharged.

The JST will consider both point and non-point source as described in the draft Ic/R (page 30) and a monitoring system will be developed by type of pollution and water bodies discharged.

- (3) Roles of enterprises in the monitoring system should be put more priority, but it could be difficult let them recognize their responsibility.

The JST answered that it will be considered in the output-3 (pollution control approaches) and its result should be reflected the guidelines for monitoring system.

5. Ms. Nguyen Thui Lan Huong (Integrated Coastal Zone, Marine & River Basin Management Division, VEPA/MONRE; VST member for Outputs 3, 4 and 5)



- (1) Regulatory approach should be considered more carefully taking uniform enforcement on pollution control.

The JST will clarify contents and type of regulatory approaches considering objectives, power & right, effectiveness, and so on.

- (2) The output-3 should be considered targeting not only Thai Nguyen and Bac Kan provinces, but also other areas, being not to limit the benefit of the output-3 only 2 provinces.

The JST will consider the output-3 for broad application in Vietnam.

- (3) A model area would be selected considering budget limitation of JICA, but it should cover the whole Cau river basin in principle.

The JST replied that the design of monitoring system, DB and map preparation, and output-4 are targeting the Cau river model area, and other outputs will be prepared targeting to expand in Vietnam later on.

6. Mr. Tran Nguyen (Deputy Director of Bac Kan DONRE)

Pollution sources in Bac Kan province have difference characteristics compared with ones in Thai Nguyen province. What kinds of Capacity Development (CD) activities will be applied for Bac Kan province considering its difference and how JST will apply the outputs of the Study to Bac Kan province?

The JST will focus on monitoring design and pollution inventory of mining activities considering characteristics of Bac Kan province located in the upper stream area of Cau river basin, and JST will plan to apply the output-1, 2, and 5 for Bac Kan province.

7. Mr. Nguyen Xuan Bao Tam (Deputy Director General of International Cooperation Department, MONRE)

- (1) The Study should provide practical tools to the Vietnamese side and it should be used for actual implementation of the ready prepared water environment management plan in 2 provinces, and it is important to collaborate with other similar projects for time and cost saving.

The JST will conduct the Study taking the comments into account and collaborating other similar projects.

- (2) When the Cau River Model Area Water Environment Management Task Force (Task Force) is established developed, it should follow the Vietnamese legislation.

The JST will subject to the Vietnamese legislation.

8. Dr. Do Nam Thang (River Basin Management Division, VEPA; Study Manager)

- (1) Reasons to include IET/VAST in PCU should be clarified further.

The JST will describe it in the Ic/R.

- (2) Roles of the proposed Task Force are similar with VST and the function of and funding for the Task Force are unclear. Because of causing some slow down of the Study, it is better not to establish the Task Force. It is suggested that other methods can be applied to involve relevant stakeholders, such as holding workshops and seminars.

Since JST and VST will conduct the Study with close contact to the Cau River Committee Office in MONRE for the time being, JST will propose to consider the Task Force again when the output-4 will be concremented in the next year, if any. This will be described in the Ic/R.

9. Mr. Tran Nguyen (Deputy Director of Bac Kan DONRE)



It is important for the Study to cooperate directly with the Environmental Protection Committee for Cau River Basin (the Cau River Committee). Close contact with the Cau River Committee is possible because its office is in MONRE. So, it does not need to establish the Task Force.

The JST will take note this comment and describe in the Ic/R.

10. Dr. Do Nam Thang (River Basin Management Division, VEPA; Study Manager)

Wrapping-up the Informal PCU Meeting by summarizing the following key discussion points;

- 1) To discuss methodology of the Study with VST and JST considering working time and applicability of outputs,
- 2) To clarify roles of VST and JST including input of local resources,
- 3) To clarify roles of VAST/IET in PCU,
- 4) To consider applicability of pollution control approaches (Output-3),
- 5) To receive response and feedback to the comments mentioned above.

The JST expressed thanking remarks and replied to continue further discussion with VST for finalization of the draft Ic/R.

End



ANNEX-1

List of Attendants

Vietnamese Side

- | | | |
|----|--------------------------------|--|
| 1 | Mr. Phung Van Vui | Deputy Director General of VEPA/Team Leader of VST |
| 2 | Dr. Do Nam Thang | River Basin Management Division, VEPA/Manager of VST |
| 3 | Ms. Nguyen My Hoang | ICD, VEPA/VST |
| 4 | Mr. Ho Kien Trung | Pollution Control Division of VEPA/VST |
| 5 | Ms. Nguyen Lan Huong | Integrated Coastal Zone, Marine & River Basin Management Division, VEPA/VST |
| 6 | Mr. Nguyen Huu Thang | CEMDI, VEPA/VST |
| 7 | Mr. Nguyen Xuan Bao Tam | Deputy Director General of ICD/MONRE |
| 8 | Dr. Hoang Duong Tung | Director of CEMDI, VEPA |
| 9 | Mr. Tran Nguyen | Deputy Director of Bac Kan DONRE |
| 10 | Mr. Luong Phuong NAM | Bac Kan DONRE (VST) |
| 11 | Mr. Nguyen Kim Quy | ICD/MONRE |

Japanese Side

- | | | |
|----|---------------------------|---|
| 1. | Dr. Yasuaki Maeda | JICA Expert/MONRE |
| 2. | Ms. Eiko Kojima | Project Formulation Advisor, JICA Vietnam Office |
| 3. | Ms. Hoang Thu Thuy | Assistant Program Officer, JICA Vietnam Office |
| 4. | Mr. Yoichi Iwai | JICA Study Team |
| 5. | Mr. Kengo Naganuma | JICA Study Team |



ANNEX-2

**The Study for Water Environment Management
on River Basins in Vietnam**

Agenda for the 1st Informal Project Coordination Unit Meeting

1. Date:

- May. 30 (Friday), 2008, 14:00-16:00: at meeting room in Trade Union Hotel

2. Agenda

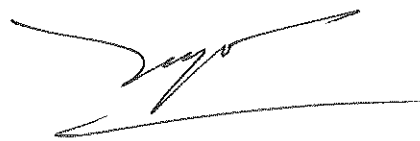
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|--|--------------------|
| 1. Opening Remarks
(by Mr. Phung Van Vui; Deputy Director General, VEPA) | 14:00-14:10 |
| 2. Presentation-1: Draft Inception Report
(by Yoichi Iwai; JICA Study Team) | 14:10-14:50 |
| 3. Presentation-2: Urban Water Environment Improvement Program
(by Ms. Eiko KOJIMA; the JICA Vietnam Office) | 14:50-15:10 |
| 4. Discussion and Q/A | 15:10-15:40 |
| <i>Coffee Break</i> | |
| 5. Discussion and Q/A (continued) | 15:50-16:30 |
| 6. Closing Remarks
(by Dr. Do Nam Thang; Team Leader of VST) | 16:30-16:35 |

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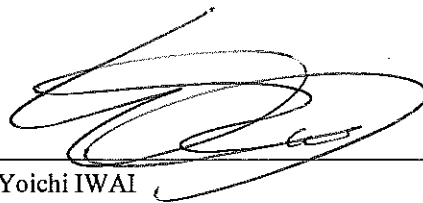


Minutes of Meeting
on
the 2nd Informal Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

Hanoi, 18 June 2008



Prof. Dr. Bui Cach Tuyen
Vice General Director
Vietnam Environment Protection Agency
Ministry of Natural Resource and Environment



Mr. Yoichi IWAI
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

collect useful and effective information of each pollution source.

- c) The JST should provide more effective GIS-database for developing actual pollution control.
- d) The results of the Study should contribute to improve the post EIA system applied in Vietnam.
- e) As for the Database, it should include the information about toxic and hazardous substances to be applied in Vietnam.
- f) The activities for the Output-3 should focus on the water environment management rather than the pollution control in accordance with the description in M/M.
- g) A revision of the current inspection manual should be considered the current regulatory methods of Vietnam such as the revised Decree No.81.
- h) In order to get successful results in each Output, it is necessary to allocate adequate budget for actual works.
- i) To develop an overall Database related to the Output-1 and 2 will take a lot of time. So, we need to find out more effective way.
- j) Now VEPA is conducting to prepare a database related to toxic and hazardous chemical substances. In this connection, this Study should reflect this activity for better application and promotion.

Mr. Yoichi Iwai responds to those comments mentioned above as follows;

- a) It would be little bit difficult to cover all pollution sources within this Study. The JST will put the first priority to develop a framework for investigation for continuous implementation by the Vietnamese side.
- b) An inventory questionnaire should be prepared covering all information of pollution sources. However, it might be necessary to be friendly for the target pollution sources to fulfill it.
- c) The JST plans to input new and additional information to the current D-base which VEPA established. There could be some room to develop the database itself in some extent, but it must be discussed further with the Vietnamese for better solution.
- d) The JST do wishes to contribute for promotion of environmental protection in Vietnam, and commits to conduct our best for such contribution.
- e) It could be possible to include information related to toxic and hazardous substances in this Study. In order to deal with this mater smoothly, JST proposes to have in detail discussion involving VAST/IET.
- f) The JST agreed this comment, and modify usage of word in the Study.
- g) A revision of the current inspection manual related to water environmental management should consider the current and revised regulatory approaches adopted in Vietnam. The JST will consider the current regulatory approaches applied in Vietnam.
- h) The JST will propose effective and efficient use of the budget allocated by the JICA HQ for the Study, and it is now under discussion with the Vietnamese side.
- i) The JST will consult and discuss with the Vietnamese side on this matter.
- j) It is very important to disseminate the current D-base of related to toxic and hazardous chemical substances developed by VEPA. So, this aspect should be reflected for preparation of a



In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on 4 March 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as “the Study”), the Government of Japan dispatched the Study Team headed by Mr. Yoichi Iwai through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

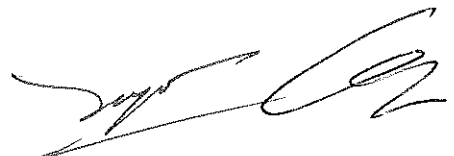
The 2nd Informal Project Coordination Unit (PCU) Meeting was started by an opening remark by the Vice General Director of VEPA, Prof. Dr. Bui Cach Tuyen. The Leader of JICA Monitoring Mission, Mr. Senro Imai, and the Deputy Resident Representative of JICA Vietnam Office, Mr. Yasuhiro Tojo, expressed thanking remarks to the PCU members and other attendants mentioning key issues of the Study.

Under the chairman ship by the Vice General Director of VEPA, Prof. Dr. Bui Cach Tuyen, the JICA Study Team, Mr. Yoichi Iwai, presented the revised contents of the draft Inception Report (Ic/R) based on the discussions with the Vietnamese side after the 1st Informal PCU Meeting held on 30th May, 2008. And then, the overall discussions on the revised contents of the draft Ic/R were conducted by the attendants.

A list of attendants and the agenda for the 2nd Informal PCU Meeting are attached in ANNEX-1 and ANNEX-2, respectively.

The revised contents of the draft Ic/R are generally agreed among the PCU members and attendants. However, the following points should be reflected and modified for finalization of the Ic/R based on the comments discussed in the meeting.

- (1) Mr. Duong Thanh An, the Director of ICD in VEPA, commented that the prediction of future pollution load should reflect development scenarios of Vietnam, and the recommendations of Output-6 must be comprehensive considering socioeconomic situation of Vietnam because it might cause some influence on projects in future. Mr. Yoichi Iwai replied that the JICA would prepare recommendations for actual application and dissemination of the proposed water environment management plan through in depth discussions with the Vietnamese side.
- (2) Mr. Ho Kiem Trung, a member of the Vietnamese Study Team in charge for the Output-2, commented the following points;
 - a) The Study should cover all pollution sources in the Cau river basin.
 - b) Regarding to the inventory survey, it is crucial to develop a questionnaire in detail in order to



handbook of water environment management plan.

- (3) Mr. Nguyen Huu Thang, a member of the Vietnamese Study Team in charge for the Output-1, commented that a preparation of maps indicated pollution sources by using overlay methods in kind is very important for planning of the monitoring system, and so it should be clarified a level of support to this work by JST.

Mr. Senro Imai, Leader of JICA Monitoring Mission, replied referring to the Scope of Work that a presentation of indicative map with at least 2 layers including pollution sources and water quality is required in the Study. The map to be developed by the Study is an experimental one. He stressed the importance of continuation of works for further improvement of the current conditions.

- (4) Ms. Nguyen Thi Viet Hong, the Water Resource Management Department in MONRE, questioned that how JST plans to categorize rivers in Vietnam for designing a water quality monitoring system to be applied to the nation wide rivers in Vietnam for preparation of the guidelines.

Mr. Yoichi Iwai answered that JST will propose a prototype of water quality monitoring system in the Guidelines considering the results of evaluation it in Cau river basin and the information of other relevant rivers such as Nhue-Day river and Don Nai river.

- (5) Ms. Nguyen Kim Quy, the International Cooperation Department in MONRE, questioned about differences between two figures which show the PCU member lists in the presentation.

Mr. Yoichi Iwai replied that the first figure shows the list mentioned in M/M of the Study signed on 4 March 2008 and the second one shows the proposed list through discussion with the Vietnamese side.

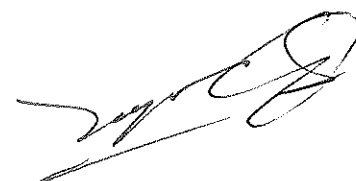
Ms. Nguyen Thi My Hoang, a member of the Vietnamese Study Team, further explained why the Vietnamese side revised the PCU members from the original list.

- (6) Mr. Tran Nguyen, the Vice Director of Bac Kan DONRE, recommended that the effective collaboration with on going similar projects assisted by CIDA and the Government of Vietnam in Bac Kan province should be considered for better output of the Study with time and cost saving viewpoints.

Mr. Yoichi Iwai appreciated his recommendation and JST requests Bac Kan DONRE for such collaboration.

- (7) Prof. Dr. Bui Cach Tuyen, Vice General Director of VEPA, commented the following points for actual implementation of the Study;

- a) To consider more effective laws and legal system in Vietnam related to environmental management,
- b) To take care of actual implementation of laws and regulations mentioned above,
- c) To promote environmental ethics on environment including environmental education,

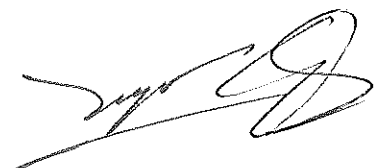


- d) To understand characteristics of Vietnam and recognize differences from Japan,
- e) To involve economic instruments in pollution control,
- f) To clarify pivots on pollution control i.e. achievement of ambient quality standard and compliance of discharge standard,
- g) To examine actual status of pollution control measures taken so far including its effectiveness, and
- h) To take care of reality on actual implementation of countermeasures for environmental protection in Vietnam.

Finally, Prof. Dr. Bui Cach Tuyen, the Vice General Director of VEPA, wrapped up the 2nd Informal PCU Meeting mentioning the following issues for finalization of the revised Ic/R of the Study.

- 1) To clarify terminology of specific terms, and to reach mutual understanding between VST and JST,
- 2) To consider local situations and conditions in Vietnam,
- 3) To discuss with VST related to Database, and
- 4) To prepare applicable pollution control approaches for Vietnam through in depth discussion with the Vietnamese stakeholders.

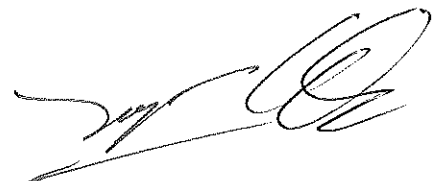
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ANNEX-1

List of Attendants of the 2nd Informal PCU Meeting

No.	Name	Position	Organization
PCU Members			
1.	Prof. Dr. Bui Cach Tuyen	Vice General Director	VEPA
2.	Ms. Nguyen Kim Quy		ICD/ MONRE
3.	Mr. Nguyen Le Tuan		DWRM/ MONRE
4.	Ms. Nguyen Thi Viet Hong	Officer	ditto
5.	Mr. Nguyen Hoang Linh		MPI
6.	Ms. Tran Le Anh		Cau River Committee Office
7.	Mr. Tran Nguyen	Vice Director	Bac Kan DONRE
8.	Mr. Duong Thanh An	Director of ICD	VEPA
9.	Mr. Nguyen Huu Thang	Member of Vietnamese Study Team	ditto
11.	Mr. Ho Kiem Trung	ditto	ditto
12.	Ms. Nguyen Lan Huong	ditto	ditto
13.	Mr. Nguyen The Giang	ditto	Thai Nguyen DONRE
14.	Mr. Luong Phuong Nam	ditto	Bac Kan DONRE
15.	Ms. Nguyen Thi My Hoang	Coordinator	ICD/ VEPA
16.	Mr. Yoichi Iwai	Team Leader of JICA Study Team	Nippon Koei Co., Ltd.
17.	Mr. Kengo Naganuma	Member of JICA Study Team	ditto
18.	Mr. Yasuhiro Tojo	Deputy Resident Representative	JICA Vietnam Office
19.	Ms. Eiko Kojima	Project Formulation Advisor	ditto
20.	Ms. Hoang Thu Thuy	Assistant Program Officer	ditto
21.	Mr. Senro Imai	Leader of JICA Monitoring Mission	JICA HQ
22.	Mr. Yutaka Matuzawa	Member of JICA Mission	ditto
23.	Ms. Akiko Kawata	ditto	ditto
24.	Mr. Yasutoshi Sagami	ditto	ditto
Observers			
1.	Mr. Yosuke Tomizawa	Second Secretary	Embassy of Japan
2.	Dr. Yasuaki Maeda	JICA Expert	JICA
3.	Mr. Takeshi Higo	Chief Advisor of IET/VAST Project	JICA



ANNEX-2

**The Study for Water Environment Management
on River Basins in Vietnam**

Agenda for the 2nd Informal Project Coordination Unit Meeting

1. Date:

- 18 July (Wednesday), 2008, 14:00-17:30: at meeting room in VEPA

2. Agenda

1. Introduction 14:00-14:15
(by Ms. Nguyen Thi My Hoang; ICD/ VEPA)

2. Opening Remarks-1 14:15-14:25
(by Mr. Yasuhiro Tojo; Deputy Resident Representative, JICA Vietnam Office)

3. Opening Remarks-2 14:25-14:40
(by Mr. Senro Imai; Team Leader, JICA Advisory Committee)

3. Presentation: Draft Inception Report 14:40-15:20
(by Yoichi Iwai; JICA Study Team)

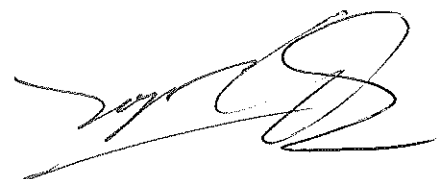
Coffee Break

4. Discussion and Q/A 15:40-17:25
(Chaired by Prof. Dr. Bui Cach Tuyen; Vice General Director of VEPA)

6. Closing Remarks 17:25-17:40
(by Prof. Dr. Bui Cach Tuyen; Vice General Director of VEPA)

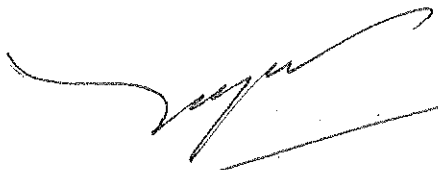

7. M/M Preparation 17:40-
(by the JICA Study Team and the Vietnamese Study Team)

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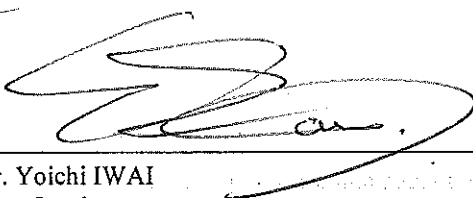


Minutes of Meeting
on
the Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

Hanoi, 10 December 2008

Prof. Dr. Bui Cach Tuyen
Vice General Director
Vietnam Environment Protection Agency
Ministry of Natural Resource and Environment



Mr. Yoichi IWAI
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on 4 March 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as "the Study"), the Government of Japan dispatched the Study Team headed by Mr. Yoichi Iwai through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

The Project Coordination Unit (PCU) Meeting was started by an opening remark by the Deputy General Director of the Vietnam Environment Administration (VEA), Dr. Nguyen The Dong. The Senior Deputy Resident Representative of JICA Vietnam Office, Mr. Yasuhiro Tojo, expressed thanking remarks to the PCU members and other attendants mentioning key issues of the Study and further cooperation on the river basin water environment management.

Under the chairman ship by the Deputy General Director of VEA, Dr. Nguyen The Dong, the JICA Study Team, Mr. Yoichi Iwai, presented the Explanatory Report of the Study and the focal points of the draft final Guideline for Designing Water Quality Monitoring System at River Basin Level (the Monitoring Guideline). And then, the overall discussions on the contents of the Explanatory Report and the draft final Monitoring Guideline were conducted by the attendants.

A list of attendants and the agenda for the PCU Meeting are attached in ANNEX-1 and ANNEX-2, respectively.

The contents of the Explanatory Report and the draft final Monitoring Guideline were officially agreed among the PCU members and attendants. The PCU also approved holding the Second Workshop for the draft final Monitoring Guideline on 22nd December, 2008. The followings are the major comments and suggestions by the PCU members and attendants;

- (1) Dr. Nguyen Minh Son, the Vice Director of VAST/IET, appreciated stable progress of the Study. Then, he questioned and suggested the following comments mostly from technical viewpoints;
 - a) The Cau River Committee (CRC) should be included in the organization chart of the Study.
 - b) A scientist group consisted in various sectors should be built in the organization chart to contribute technical supports for the Study.
 - c) Relation between the Output-2 and the environmental protection fee should be explained.
 - d) Some technical terms used in the draft final Monitoring Guideline should be further clarified their terminology.
 - e) The draft final Monitoring Guideline should describe more in detail how to interpret and use the obtained monitoring data.

Mr. Yoichi Iwai responds to the comments mentioned above as follows;

- a) The organization chart of the Study was prepared based on M/M and S/W signed by VEPA and JICA on 4 March 2008.
- b) It is very important to receive technical support from the scientists in Vietnam, so the Vietnamese Study Team (VST) and the Japanese Study Team (JST) have held several mini-Workshops in each Output of the Study inviting the Vietnamese scientists concerned.
- c) Outcomes of the Output-2 such as inventory preparation should contribute to collect the environmental protection fee promulgated in the Decree No. 67/2003 because it could clarify quality and load of wastewater discharge from each pollution source.
- d) Through the Second Workshop for the draft final Monitoring Guideline, it will be distributed to the official organizations concerned. The draft final Monitoring Guideline should be finalized on February 2009 reflecting comments and suggestions from such organizations not including clarification of terminology.
- e) The interpretation and usage of monitoring data is crucial for effective promotion of the water environment management in river basin. The draft final Monitoring Guideline should be clarified further and be revised based on the comments and suggestions from concerned organizations.

(2) Dr. Hoang Duong Tung, the Director of CEMDI, commented the following points;

- a) The draft final Monitoring Guideline is well prepared and it would be practical.
- b) From now, it would be necessary to consider the next step for dissemination of this draft final Monitoring Guideline such as preparation of Decree and/or Circular as a legal base, and implementation of technical training.
- c) Currently, an activity of inventory preparation has been conducting in Nhue-Day river basin. So, it is important to share experiences and outputs each other.

Mr. Yoichi Iwai replied to the comments mentioned above as follows;

- a) The efforts to make the draft final Monitoring Guideline more useful and effective tool for water environment management at river basin level should be crucial.
- b) Sharing information related to preparation of inventory guideline should be promoted taking opportunities on the mini-Workshops and others as much as possible.

(3) Dr. Dang Van Loi, the Director of ICD of VEA, suggested that the importance of pollution source inventory should be explained to concerned pollution sources in the course of the Study, and the PCU members would support and promote such activities. Mr. Yoichi Iwai appreciated his suggestions and support to the Study through PCU.

(4) Mr. Ho Kiem Trung, the officer of PCD of VEA, questioned the following points on the draft final Monitoring Guideline;

- a) What kind of criteria should be applied for selection of monitoring stations and parameters?
- b) How is the current Quality Assurance and Quality Control (QA/QC) method of CEMDI described

draft final Monitoring Guideline?

Mr. Kengo Naganuma, a member of JST, answered as follows;

- a) The current and planned water resource use should be a base of selection criteria. In this regards, it is important to set an administrative protection goal of water quality by careful consideration of ambient water quality standard. The monitoring parameters are selected based on TCVN at first, and squeezed considering importance and applicability in the target areas.
- b) The current QA/QC system designed in the Circular No. 10/2007/TT-BTNMT "Guiding the quality assurance and quality control in environmental monitoring" is referred on the T-5 Quality Assurance and Quality Control in the APPENDIX: TECHNICAL MANUAL FOR WATER QUALITY MONITORING AT RIVER BASIN LEVEL.

(5) Ms. Tran Thi Le Anh, the officer of Cau River Committee Office, questioned and commented the following points;

- a) What kind of monitoring network should be established from viewpoint of river basin?
- b) She agreed the opinions of Dr. Hoang Duong Tung, the Director of CEMDI, related to the next step for dissemination of the draft final Monitoring Guideline.
- c) What is the current situation on the Output-4 and Output-5 of the Study?

Mr. Kengo Naganuma, a member of JST, answered as follows;

- a) The current problem is not enough discussion and adjustment among current monitoring network system in each province. More close coordination should be necessary to avoid unnecessary duplication among the concerned monitoring implementation bodies.

Mr. Yoichi Iwai also replied as follows;

- b) Currently, the overall consideration framework and concept of the Output-4 is under preparation. The JST will discuss it preliminarily with VST after preparation of its draft. As for the Output-5, there is no actual progress up to now.

(6) Ms. Eiko Kojima, the Project Formulation Advisor, JICA Vietnam Office, explained the JICA's budget system of the Study mentioning the following points;

- a) The total budget of the Study is around 240,000,000 JPN.
- b) Since the JICA's technical cooperation is conducted in kind contribution and support, detailed breakdown of the budget is not allowed to be open. This is JICA's policy.
- c) The budget planning is fully responsible for the JICA Headquarters, and it is disbursed based on the Contract between JICA Headquarters and the Contractor. Therefore, it is normally very difficult to change budget allocation and could be few flexibility on the current budget system. Since JICA Headquarters makes annual budget planning and renews the Contract in the beginning of Japanese fiscal year, it might be possible to receive requests on budget allocation in the next fiscal year from Vietnamese side by March. The validity and the feasibility will be considered by JICA Headquarters.
- d) The JICA can not allocate personnel expenses for the counterpart agency in Vietnam. This is also JICA's policy.



Dr. Do Nam Thang, the Officer of River Basin Management Division of VEA, commented that VST will request JICA to allocate budget for formulation of a local expert team to support the Study from technical viewpoint.

- (7) Mr. Phung Van Vui, the Vice Director of VEA, commented that the request on budget allocation should be further discussed in VST, and the PCU members will fully support the activities on inventory preparation in the course of the Study.
- (8) Dr. Nguyen Minh Son, the Vice Director of VAST/IET, commented that a technical support team consisting of relevant scientists in Vietnam should be built in the Study because of practical limitation of mini-Workshop. He also suggested the collaboration with the Pollution Control in Poor Densely Populated Areas (PCDA) Project in Thai Nguyen assisted by DANIDA.

Finally, Dr. Nguyen The Dong, the Deputy General Director of VEA, wrapped up the PCU Meeting mentioning the following notes on the Study.

- 1) The PCU confirmed the current progress of the Study, and appreciated the efforts of VST and JST so far,
- 2) The PCU members shared the progress and difficulties of the Study, and commit to support and coordinate for smooth implementation of the Study,
- 3) The draft final Monitoring Guideline is good enough in contents and the PCU approves holding the Second Workshop for dissemination of it,
- 4) The PCU will coordinate among local authorities concerned for solving difficulties on inventory preparation,
- 5) The PCU recommends VST and JST to discuss the necessity of local expert group for technical support and additional inventory survey in the activities of the next Japanese fiscal year, and
- 6) The PCU recommends to contact Mr. Nguyen Hoa Binh, Director of the Department of Waste Management and Environmental Improvement to follow up the current situation of the Office of Cau River Committee.



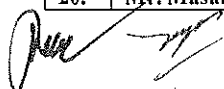
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ANNEX-1

List of Attendants of the PCU Meeting in December

No.	Name	Position	Organization
1.	Dr. Nguyen The Dong	Deputy Director General	Vietnam Environment Administration (VEA)
2.	Dr. Nguyen Minh Son	Vice Director	VAST/IET
3.	Dr. Dang Van Loi	Director	ICD of VEA
4.	Mr. Phung Van Vui	Vice Director	VEA
5.	Dr. Do Nam Thang	Officer	River Basin management Division, VEA
6.	Dr. Hoang Duong Tung	Director	CEMDI of VEA
7.	Mr. Nguyen Huu Thang	Officer	CEMDI of VEA
8.	Ms. Tran Thi Le Anh	Officer	Cau River Committee Office
9.	Mr. Ho Kien Trung	Officer	PCD of VEA
10.	Ms. Nguyen Thi My Hoang	Officer	VEA
11.	Mr. Yasuhiro Tojo	Senior Deputy Resident Representative	JICA Vietnam Office
12.	Ms. Eiko Kojima	Project Formulation Advisor	JICA Vietnam Office
13.	Mr. Yosuke Tomizawa	Second Secretary	Embassy of Japan
14.	Mr. Yutake Matsuzawa	JICA Expert	MONRE
15.	Mr. Yoichi Iwai	Team Leader	JICA Study Team
16.	Mr. Kengo Naganuma	Member	JICA Study Team
17.	Mr. Tadashi Shoji	Member	JICA Study Team
18.	Mr. Shunsuke Hieda	Member	JICA Study Team
19.	Mr. Shinsuke Sato	Member	JICA Study Team
20.	Mr. Masahito Miyagawa	Member	JICA Study Team




The Study for Water Environment Management on River Basins in Vietnam

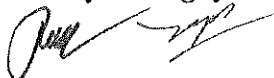
Agenda for the Project Coordination Unit Meeting

Date:

- 10th December (Wed), 2008, 14:00 - 16:50 at meeting room in VEPA/MONRE

Agenda

- | | |
|--|-------------|
| 1. Opening and Introduction
by Mr. Phung Van Vui, Leader of Vietnamese Study Team | 14:00-14:05 |
| 2. Opening Remarks
by Dr. Nguyen The Dong, Deputy Director of VEPA | 14:05-14:15 |
| 3. Opening Remarks
by Mr. Yasuhiro Tojo, Deputy Representative of JICA Vietnam | 14:15-14:20 |
| 4. Presentation: Explanatory Report and Draft Final
Monitoring Guideline
by Mr. Yoichi Iwai, Leader of Japanese Study Team | 14:20-14:45 |
| 5. Discussion and Q/A
(Chaired by Dr. Nguyen The Dong, Deputy Director of VEPA) | 14:45-15:50 |
| 6. Explanation of JICA's Budget System of the Study
by Ms. Eiko Kojima, JICA Vietnam Office | 15:50-16:00 |
| 7. Discussion and Q/A (Continued)
(Chaired by Dr. Nguyen The Dong, Deputy Director of VEPA) | 16:00-16:40 |
| 8. Closing Remarks
by Dr. Nguyen The Dong, Deputy Director of VEPA | 16:40-16:50 |

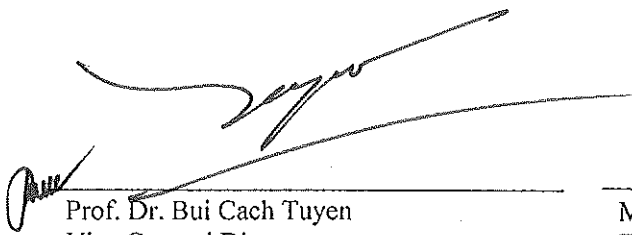


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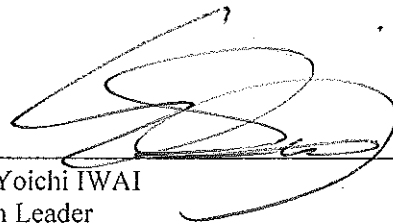


Minutes of Meeting
on
the Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

Hanoi, 20 January 2009



Prof. Dr. Bui Cach Tuyen
Vice General Director
Vietnam Environment Administration
Ministry of Natural Resource and Environment



Mr. Yoichi IWAI
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on 4 March 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as “the Study”), the Government of Japan dispatched the Study Team headed by Mr. Yoichi Iwai through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

The Project Coordination Unit (PCU) Meeting was started by an opening remark by the Vice General Director of the Vietnam Environment Administration (VEA), Prof. Dr. Bui Cach Tuyen on 20th January, 2009. The Senior Deputy Resident Representative of JICA Vietnam Office, Mr. Yasuhiro Tojo, addressed thanking remarks to the PCU members and all attendants mentioning contribution on preparation of the Guideline for Pollution Source Inventory Development for Water Environment Management at River Basin Level (hereafter, referred as to “Inventory Guideline”), and further cooperation on the river basin water environment management.

Under the chairman ship by the Director of PCU, Prof. Dr. Bui Cach Tuyen, the JICA Study Team (JST), Mr. Kengo Naganuma, presented the focal points of the draft final Inventory Guideline with process of its preparation and future plan to disseminate the Inventory Guideline through a workshop planned in coming February. And then, the overall discussions on the contents of the draft final Inventory Guideline were conducted by the attendants.

A list of attendants and the agenda for the PCU Meeting are attached in ANNEX-1 and ANNEX-2, respectively.

The contents of the draft final Inventory Guideline were agreed among the PCU members and the attendants, and the PCU also accepted to hold a workshop for the draft final Inventory Guideline in February 2009. The followings are the major comments and suggestions by the PCU members and the attendants;

(1) Dr. Nguyen Minh Son, the Vice Director of VAST/IET mentioned the draft final Inventory Guideline has been well improved comparing with the former version through a series of discussions in the mini-workshops. He expected that the draft final one could be useful to control pollution sources. Then, he commented that the Vietnamese version needed further to review on technical terms used and should be revised by the Vietnamese pollution control experts. He also commented on the English version as follows.

- a) It is recommended that the preposition used after the word “Guideline” in the title will be changed from “for” to “on”.
- b) Header should be revised, and the title should be fully described.

- c) Usage of verbs and nouns in the section C-2 should be corrected, and its descriptions be unified.
- d) The first sentence in the section C-3.2(4) 3) should be revised to explain the contents accurately.
- e) The word “Selection of pollution sources” in the figure C-3.4 should be changed to “Identification of pollution sources” to explain the objective accurately.
- f) The section C-6, “Resource and Organization” should be developed in future.

(2) Dr. Do Nam Thang, VST, mentioned that the English version of the draft final Inventory Guideline could be approved. He excused that the Vietnamese experts could not review the draft final Inventory Guideline due to time limitation. So, the Vietnamese experts would revise the Vietnamese version from now.

(3) Mr. Nguyen Xuan Bao Tam, MONRE, appreciated the draft final Inventory Guideline, and expected to use it for water environment management. He stressed importance of an actual usage plan of the pollution source inventory for pollution control. A list of required projects for suitable usage of pollution source inventory should be prepared, and shared among DONREs concerned.

(4) Ms. Tran Thi Le Anh, ICD/VEA commented as follows;

- a) Through the mini-workshops, the contents have been improved, and its quality could be satisfied.
- b) Information collection measures in the figure C-3.1 should be more concise for better understanding. The reliability of the collected information by each measure should be explained.
- c) A mechanism for sharing the pollution source information should be examined more carefully.
- d) Expected users of the Inventory Guideline will be not only VEA but also concerned DONREs. Therefore, a user’s training should be planned and implemented.

(5) Mr. Phung Van Vui, the leader of VST, mentioned that the Japanese side had a responsibility to develop the Inventory Guideline, and the Vietnamese side had a responsibility to apply it in accordance with the framework of the Study. After the Inventory Guideline approved officially, the concerned departments such as PCD, would be assigned as a responsible organization to apply it.

(6) Mr. Kengo Naganuma, JST, thanked to all attendants for supporting preparation of the draft final Inventory Guideline and for its approval. He mentioned that the draft final one would be upgraded hereafter through the workshop and trail usage by VST, JST, and concerned organizations, and that further constructive comments would be welcome for upgrading.

Finally, Prof. Dr. Bui Cach Tuyen, wrapped up the PCU Meeting mentioning agreement on the draft final Inventory Guideline presented by VST and JST, and requesting all attendants for further contribution to upgrade it.



End

ANNEX-1

List of Attendants of the PCU Meeting in January 2009

No	Name	Position	Organization
1	Prof. Dr. Bui Cach Tuyen	Vice General Director/ Director of PCU	Vietnam Environment Administration (VEA)
2	Mr. Nguyen Xuan Bao Tam	Vice Director	ICD/ MONRE
3	Dr. Nguyen Minh Son	Vice Director	IET/VAST
4	Mr. Phung Van Vui	Leader of VST	Department of Biodiversity Protection/ VEA
5	Ms. Nguyen Thi Kim Quy	Officer	ICD/ MONRE
6	Dr. Do Nam Thang	Officer/ VST Member	Institute of Scientific and Environmental Management/VEA
7	Ms. Nguyen Lan Huong	Officer/ VST Member	Department of Waste Management and Environmental Improvement/VEA
8	Ms. Nguyen My Hoang	Officer/Coordinator of VST	ICD/ VEA
9	Mr. Luong Phuong Nam	Officer/ VST Member	Bac Kan DONRE
10	Ms. Tran Thi Le Anh	Officer	ICD/VEA
11	Mr. Le Huu Thuan	Deputy Director	Water Resources Management
12	Mr. Vu Van Phuong	Officer	CEMDI/VEA
13	Mr. Nguyen Huu Thang	Officer/ VST Member	CEMDI/ VEA
14	Mr. Yutaka Matuzawa	JICA Expert/ MONRE	JICA
15	Mr. Yasuhiro Tojo	Senior Deputy Resident Representative	JICA Vietnam Office
16	Ms. Eiko Kojima	Project Coordinator	JICA Vietnam Office
17	Ms. Hoang Thu Thuy	Officer	JICA Vietnam Office
18	Mr. Kengo Naganuma	Member	JST
19	Mr. Tadashi Shoji	Member	JST
20	Mr. Shinsuke Sato	Member	JST
21	Mr. Takashi Kaji	Member	JST
22	Ms. Nguyen Thanh Lan	Staff	JST
23	Ms. Nguyen Thi Tuyet Nhung	Staff	JST
24	Mr. Nguyen Thanh Phuong	Staff	JST

The Study for Water Environment Management
on River Basins in Vietnam

Agenda for the Project Coordination Unit Meeting
in January 2009

1. Date:


- 20th January (Tue) 2009, 16:00-17:30: at meeting room in VEPA/MONRE

2. Agenda

- | | |
|---|--------------|
| 1. Opening and Introduction
(by Mr. Phung Van Vui – Leader of Vietnamese Study Team) | 16:00-16:05 |
| 2. Opening Remarks
(by Prof. Dr. Bui Cach Tuyen, Director of PCU) | 16:05-16:10 |
| (by Mr. Yasuhiro Tojo, Senior Deputy Resident Representative
of JICA Vietnam Office) | 16:10 -16:15 |
| 3. Presentation of the Draft Final Pollution Source Inventory Guideline
(by Mr. Kengo Naganuma, JICA Study Team) | 16:15-16:50 |
| 4. Discussion and Q/A
(chaired by Prof. Dr. Bui Cach Tuyen - Director of PCU) | 16:50-17:25 |
| 5. Closing Remarks
(by Prof. Dr. Bui Cach Tuyen - Director of PCU) | 17:25-17:30 |

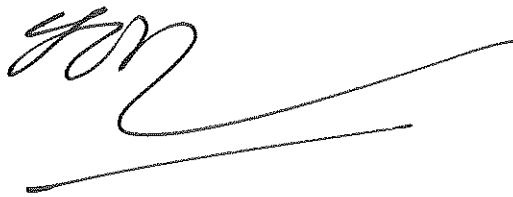


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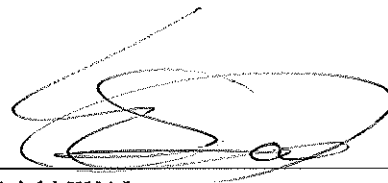


Minutes of Meeting
on
Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

3, March 2009



LS Dr. Le Ke Son
Vice Director
Vietnam Environment Administration
Ministry of Natural Resource and Environment



Mr. Yoichi IWAI
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on the 4 May 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as “the Study”), the Government of Japan dispatched the Study Team headed by Mr. Yoichi Iwai through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

The Project Coordination Unit (PCU) Meeting was started by an introduction by Mr. Phung Van Vui, Director of Department of Biodiversity Protection of Vietnam Environment Administration (VEA). Then Dr. Le Ke Son, Vice Director of VEA, stated the opening remark. Under the chairmanship of Dr Le Ke Son, the JICA Study Team (JST), Mr. Yoichi Iwai, presented the process and outcome of the Study in Japanese fiscal year (JFY) of 2008 and the planned activities and inputs including hiring local experts additionally in JFY of 2009 under the Study.

A list of attendants and the agenda for the PCU Meeting are attached in ANNEX-1 and ANNEX-2, respectively.

The followings are the major comments and suggestions by the PCU members and the attendants;

- (1) Mr. Phung Van Vui, Leader of VST, appreciated for the efforts of the Vietnamese Study Team (VST) and JST reflecting Vietnamese comments and suggestions to the outcomes of the Study through organizing mini-workshops and workshops.
- (2) Dr. Le Ke Son, Vice Director of VEA, commented as follows:
 - 1) The VST and JST have studied the current Vietnamese pollution control system and pointed out fundamental conditions from technical and institutional viewpoints. Hereafter, the Study will reveal key issues to be solved on pollution control and clarify the most important ones based on the Japanese experiences.
 - 2) In the process of selecting applicable pollution control approaches and of formulating a water environment management plan, VST and JST need to pay more attention to political, socioeconomic, and cultural features of Vietnam.
 - 3) Vietnam has applied various countermeasures for pollution control promulgated by Laws, Decrees, and Decisions such as the collection of environmental protection fee. These kinds of Vietnamese experiences should be reflected to the Output of the Study. Also, it is necessary to point out whether the findings of the current study are different from those of previous research and studies. The institutional and professional lines on the pollution control in the Output-3, it is required for clarifying how to evaluate a level of collaboration between PPC and

MONRE in the institutional line, and which organization is the most important in the professional line.

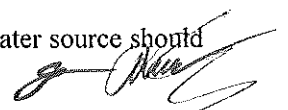
- 4) One of the problems that VEA faces now is how to achieve the common goal in the whole river basin. The proposed draft goal of the Study is to achieve clean river water quality which meets the Class A1 of QCVN 08:2008-BTNMT at the model area in 2020. Since the model area is an inter-provincial body, it could be difficult for the downstream area to achieve its goal if no action would not be taken place in the upstream area. In this context, VST and JST need to clarify the ways to achieve the total goal in the whole river basin including how long it will take to achieve referring the Japanese experience.

(3) Mr. Yoichi Iwai, the Team Leader of JST, thanked Dr. Le Ke Son's comments and replied as follows:

- 1) The political, socioeconomic, and institutional situations of Vietnam are different from that in Japan. Some proposals which JST recommends based on our experience should be modified into suitable measures to Vietnam through discussion with VST. One of key issues on pollution control is the awareness raising of pollution sources, especially to the owners and managers of state-owned enterprises. Targeting these state-owned enterprises, we need to remind the impacts on state and regional socio-economy. In other words, it is required to consider a balance between pollution control measures applied and socioeconomic development.
- 2) The VST and JST prepared the monitoring and inventory guidelines in order to promote the capacity development of DONRE. The frontline staff of DONRE should understand the concept not only what they have to do but also why they have to do for implementing water environment management in river basin level. Therefore, more collaboration between central and local governments is required to conduct effective pollution control approaches proposed in the Study.
- 3) Regarding the economic approach, both of strict penalties and incentives must be developed. As for the penalties, it would be expected by the revision of Decree No. 81 and raising wastewater discharge fee. It could be considered to enhance funding facilities such as VEPF for workable incentives.
- 4) For preparation of the Water Environment Management Plan (WEMP), VST and JST will develop a water quality prediction model to identify when, where, and how much pollution load to be reduced. The pollution control should cost, so we need to estimate the required cost, and optimize it. Under the Cau River Master Plan (M/P), the 38 of priority projects are currently planned by the Cau River Committee (CRC). Our outputs should contribute for achievement of the Master Plan. We do hope to have opportunities to explain our Study results to the Committee.

(4) Dr. Le Huu Thuan, Vice Director of Department of Water Resources Management (DWRM), questioned as follows:

- 1) The DWRM now divides river into sections based on water use purpose. Each river section has its own usage purpose and quality, for example a river section for domestic water source should



keep the best water quality. In this regards, a zoning concept for pollution source control in the Output-2 should be clarified.

- 2) In the monitoring guideline, three types of monitoring points are proposed. It should be clarified how to set each type of monitoring points in the guideline.
- 3) Since water quality usually depends on the scale of river, JST should consider some categorizations of the water body receiving wastewater from pollution sources.

(5) Mr. Yoichi Iwai replied as follows:

- 1) Zoning of pollution sources should be developed at basin level considering specific features in water use purpose and current water quality. In this Study, we will set ambient water quality standard in the river section as an administrative target to be achieved, and formulate a zoning plan including specific pollution control measures considering administrative capability and technical restrictions. For setting water quality standard, a consistency from upper to lower reach of rivers is important to achieve a common goal and to conduct effective water environment management.
- 2) Definition and usage of the proposed three types of monitoring points are explained in page 11 of the Monitoring Guideline.
- 3) The WEMP will be developed considering the characteristics of Cau river and its tributaries including river flow regime and its seasonal fluctuation.

(6) Dr. Hoang Duong Tung, Director of CEM/VEA, commented as follows:

- 1) The Vietnamese comments and suggestions are correctly reflected in the Output-1.
- 2) Some recommendations in the Output-3 are similar those of other rivers such as Nhue-Day and Dong Nai. However, such recommendations have not worked effectively and/or forced slowly. It could be same situation in the Cau river basin. So, it is crucial to identify key and substantial issues and to show “breakthrough” measures to implement actual actions based on the Japanese experiences.
- 3) Each river has its own characteristics on water pollution. Some parts of the river are more polluted than the others. The Study should develop a specific pollution control roadmap for each river section.

(7) Mr. Yoichi Iwai commented as follows:

- 1) Identifying substantial cues which have hindered actual implementation is crucial for the Study. Now, VST and JST have continued to discuss this point by exchanging mutual experiences and



views on pollution control measures have been taken so far in Vietnam and Japan. More clarification on “5W and 1H” could be attained through these co-working activities.


- 2) The Vietnamese Government has established CRC and the Cau River M/P based on the Decision No. 171 and No. 174. It can be said that the basic institutional system is already set up in the Cau river basin. Since the chairman of CRC is the chairman of Thai Nguyen Province, the achievement of the Cau River M/P fully depends on the commitment of the Provincial People’s Committee (PPC). In this context, the Output of the Study should contribute and accelerate actual implementation of the Cau River M/P.

(8) Dr. Nguyen Minh Son, Vice Director of VAST/IET commented as follows:

- 1) Co-working between VST and JST should be enhanced more strongly. Some technical concepts and definitions must be improved by the Vietnamese experiences. We will apply an integrated management which requires coordination, cooperation, and full participation of all relevant parties.
- 2) As for the Output 3, the analysis of institutional framework is considered still general. It must point out the weakness of cooperation between agencies more particularly.
- 3) Some technical terminology should be revised more in order to make them clearer such as self-supporting management, environmental rating, and so on.
- 4) The pollution control plan should follow the direction of National Pollution Control Plan in Vietnam. The zoning of pollution sources should include the specific regulation and enforcement mechanism.

(9) Dr. Tran The Loan, Director of PCD commented as follows:

- 1) Two outputs have been already completed. So, the next year’s activities should include the trial implementation, learning lessons from actual practice and revision of those outputs.
- 2) Regarding the Output-3 proposed, the Vietnamese agencies have recognized the same approaches. So, we want to know the prior approaches based on the Japanese experiences. Also, the Study should rank the priority and suitability of each approach.
- 3) Regarding the Output-2, the pollution sources inventory can not be completed now or even in near future. With experience in Japan, JST should recommend the method of determining target sources to evaluate the pollution load. The inventory guideline mentioned the CTC’s pollution load units. The JST should evaluate the applicability and suitability of the system of pollution load units.



(10) Mr. Duong Van Khanh, Director of Thai Nguyen DONRE, highly appreciated the efforts of VST and JST, and had the following opinions:

- 1) In Thai Nguyen, the environmental management has been achieved very slowly. However, the Decision No. 64 brought about a breakthrough. Before this decision, the pollution in Cau river was very serious. After the promulgation of the Decision No. 64, the outdated paper production firm is closed and the pollution of Cau river is controlled afterwards. So, the implementation of Decision No. 64 is a very important tool to control pollution.
- 2) The recommendations under the Study are really essential as those opinions may have more impacts on high-level management agencies than those of DONRE or VEA. In Thai Nguyen, the implementation of the Cau River M/P is standing still. This may be due to lack of financial mechanism for river basin. We want to know the Japanese mechanism to actualize a river basin water environment management.
- 3) Regarding the framework related to pollution control, the role of Communist Party is very important in every activity for river water environment management.
- 4) As for the economic scenarios proposed under Output-4, PPC in Thai Nguyen has changed its target to higher one, and it should consider differences between that of Thai Nguyen and Bac Kan.

(11) Mr. Yoichi Iwai thanked all attendants for precious comments and suggestions. He replied as follows:

- 1) Regarding Dr. Son's comments, all Output of the Study must be the result of co-working activities between VST and JST.
- 2) As Dr. Loan pointed out, it will take a lot of time to prepare a complete pollution source inventory. Therefore, the prioritization of targets should be included in an inventory preparation.
- 3) We are very glad to have Mr. Khanh's comments that the Decision No. 64 works very effectively. And we also have same opinion with him that the Communist Party have very important role for water environment management, so we would like to keep in touch PPC through the Study.

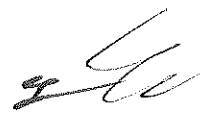
(12) Dr. Le Ke Son, wrapped up the PCU Meeting with appreciation for all attendants, and following opinions:

- 1) The PCU highly appreciates the contribution of JICA, VST, and JST. The result of the Study will be expected to contribute to pollution control in Vietnam practically. We hope that VST and JST will continue to study for overcoming water environment pollution. The VST and JST should consider the recommendations to make pollution control measures more effectively and select suitable priority for available resource development

- 2) The role of River Basin Committees is highlighted. The operation of the Committee Office is important, so it must be strengthened to ensure the effective operation of the Committee.
- 3) The DONRE's staff need to enhance their knowledge and skills, and the Study is expected to enhance their capacities.
- 4) As Mr. Iwai pointed out, the awareness raising is an important measure to implement water environment management activities. The VST and JST will be expected to provide concrete proposals on awareness raising based on the Japanese experiences.
- 5) A deep cooperation of the Vietnamese side with JST will make the Study more effective and feasible. The Vietnamese side also expects to keep long-term and inter-sectional cooperation with JICA.



End



ANNEX-1

List of Attendants of the PCU Meeting in March 2009

No.	Name	Position	Organization
PCU Members			
1.	Dr. Le Ke Son	Vice Director	VEA
2.	Mr. Phung Van Vui	Leader of VST	Department of Biodiversity Protection/VEA
3.	Dr. Le Huu Thuan	Vice Director	DWRM/MONRE
4.	Dr. Hoang Duong Tung	Director	CEM/VEA
5.	Dr. Nguyen Minh Son	Vice Director	VAST/IET
6.	Dr. Tran The Loan	Director	PCD/VEA
7	Dr. Nguyen Hoai Duc	Vice Manager	Waste Management and Environmental Protection Agency/VEA
8.	Mr. Duong Van Khanh	Director	Thai Nguyen DONRE
9.	Dr. Do Nam Thang	Member of VST	Institute of Environmental Science and Management/VEA
10.	Ms. Nguyen Thi Lan Huong	Member of VST	CEM/VEA
11.	Mr. Ho Kiem Trung	Member of VST	Waste Management and Environmental Protection Agency/VEA
12.	Ms. Nguyen Thi Lan Huong	Member of VST	Thai Nguyen DONRE
13.	Mr. Cao Le Hung	Officer	Department of International Cooperation and Science Technology/VEA
14.	Ms. Hoang Thu Thuy	Program Officer	JICA Vietnam Office
15.	Mr. Yoichi Iwai	Team Leader of JST	Nippon Koei Co., Ltd.
16.	Mr. Kengo Naganuma	Member of JST	ditto
17.	Mr. Tadashi Shoji	Member of JST	ditto
18.	Mr. Takashi Kaji	Member of JST	ditto

**The Study for Water Environment Management
on River Basins in Vietnam**

**Agenda for the Project Coordination Unit Meeting
in March 2009**

1. Date:

- The 3rd March (Tue) 2009, 09:00-11:30: at meeting room in VEA/MONRE

2. Agenda

- | | |
|---|--------------------|
| 1. Opening and Introduction
(by Mr. Phung Van Vui – Leader of Vietnamese Study Team) | 09:00-09:05 |
| 2. Opening Remarks
(by Dr. Le Ke Son, Vice Director of VEA) | 09:05-09:10 |
| 3. Presentation: Progress up to Mar 2009 and Planned Activity
from Apr 2009
(by Mr. Yoichi Iwai, JICA Study Team) | 09:10-09:40 |
| 4. Discussion and Q/A
(chaired by Dr. Le Ke Son, Vice Director of VEA) | 09:40-11:20 |
| 5. Closing Remarks
(by Dr. Le Ke Son, Vice Director of VEA) | 11:20-11:30 |



End

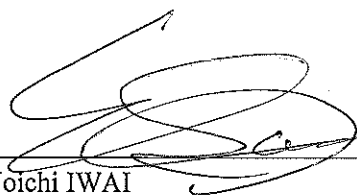


Minutes of Meeting
on
the Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

Hanoi, 21 October 2009



Dr. Do Nam Thang
Institute of Science for Environment Management
VEA



Mr. Yoichi IWAI
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on 4 March 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as "the Study"), the Government of Japan dispatched the Study Team headed by Mr. Yoichi Iwai through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

The Project Coordination Unit (PCU) Meeting was started by an opening statement by Dr. Do Nam Thang, the Leader of the Vietnamese Study Team (VST), on 21 October 2009. A list of attendants and the agenda for the PCU Meeting are attached in ANNEX-1 and ANNEX-2, respectively. After the opening statement, Mr. Yoichi Iwai, the Leader of JICA Study Team (JST), presented the draft Water Environment Management Plan (WEMP), and the overall discussions on the draft WEMP was held. The followings are major comments in the discussions.

- (1) Dr. Do Nam Thang questioned the difference of the Project 4 from the Project No.1, 2 and 3, and the purposes of the Project 4.

Mr. Yoichi Iwai explained as follows;

-The Project No.1, 2 and 3 would target enterprises to comply with wastewater discharge standard Class B of TCVN 5945, but the Project 4 would require stricter discharge standard to achieve the goal of WEMP introducing new concept of the total pollution load control.

-The pollution control should be evolved from "end of pipe" to "win-win" approach in future, because it could bring about mutual benefit for both the enterprises and the environmental administrative bodies.

-In this context, the administrative bodies would be required to set up legal background and to provide economic and financial supports to the enterprises for introducing this approach.

- (2) Dr. Hoang Duong Tung, Director of CEM/VEA, commented as follows:

The proposed projects and operation programs in WEMP are agreeable, but a risk analysis for actual implementation of WEMP and cooperation mechanism between Bac Kan and Thai Nguyen provinces should be described for promotion of basin wide water environment management.

Mr. Yoichi Iwai replied as follows;

-Regarding the risk analysis, JST will describe it in WEMP.

-The proposed WEMP should be implemented in accordance with the legal and institutional framework in Vietnam. The most important driving organization of WEMP is the Cau River Committee (CRC). Therefore, the Operation Program 9 is formulated to enhance cooperation among

concerned provinces and to promote basin wide water environment management.

(3) Dr. Nguyen Minh Son, Deputy Director of VAST/IET, commented as follows:

-This WEMP is a fundamental and overall plan for water environment management in the model area, so the proposed Projects and Operation Programs should be justified describing current issues and difficulties in the model area, such as environmental management by enterprises in the Project 1 to 4 and in the Operation Program 1 to 4, and the public awareness in the Operation Program 8, for example.

-Definition of “without measures” should be clarified whether it means a condition without any pollution control measures or without activities proposed in WEMP.

-On-going activities in the model area should be carefully considered in WEMP to reflect their effects and to avoid duplication.

-Currently, the activities related to the proposed Operation Programs in Cau river basin are not performed well, so WEMP should propose a mechanism for better implementation.

Mr. Yoichi Iwai replied as follows;

-The current issues and difficulties on water environment management in the model area are described in Chapter 2.4.4.

-The word of “Without” stands for a condition without activities proposed in WEMP.

-The planned and/or on-going projects are reflected as much as possible and are dealt with the given condition in this WEMP. Activities of the Operation Program will be described by highlighting its focal points.

-The CRC should be the sole authorized mechanism for implementation of the Cau River Basin M/P including this WEMP. Detailed implementation structure is proposed in Chapter 6.4.

(4) Mr. Cao Minh Tuan, Department of Planning and Finance/VEA, commented as follows:

-A way of financing for WEMP is the most critical issue, so it should be discussed further with the Vietnamese side.

-He questioned the reason why a turnover is used for consideration of socio-economic development scenarios in stead of production values.

Mr. Yoichi Iwai answered as follows;

-The JST just proposed an idea for consideration of financial matters. Based on this figure, JST is ready for discussing with the Vietnamese side.

-In order to predict a pollution load from enterprises under the future socio-economic conditions, JST adopts annual turnover of each enterprise.

(5) Mr. Ho Kien Trung, Department of Pollution Control/VEA, commented as follows:

-The JST should refer to the information on assessment of pollution sources status provided by VEA

in Chapter 2.

- Carrying capacity in the model area should be described in WEMP.
- The WEMP should describe necessity to modify the current legal framework.

Mr. Yoichi Iwai replied as follows;

- The JST will refer to the information provided by VEA, and describe the carrying capacity and the necessity to modify the legal framework in WEMP, especially for the Operation Program 4.

(6) Ms. Nguyen Thi Viet Hong, Department of Water Resources Management, commented as follows:

- The characteristic of each river sections should be described such as length of Cau river and pollution load amount in each section.
- The proposed projects and programs in each river section should be described clearly.
- The goal of WEMP should be set by each river section taking account into its socio-economic condition.

Mr. Yoichi Iwai replied as follows;

- The JST will describe length, pollution load, location of the Projects and the Operation Programs in each river section. The goal of WEMP is set considering current and future socio-economic conditions.

(7) Ms. Tran Thi Le Anh, PCU member, gave some commented as follows:

- The proposed Projects and Operational Programs should be described more detail and be linked with the current status in the model area.
- A monitoring program should be proposed more particularly taking account into integrated activities by VEA, DONRE, and enterprises.
- The proposed institutional structure shown in Figure 6.4-1 should be discussed further. Main implementation bodies of WEMP in the model area should be not VEA but provincial organizations.
- The estimated indicative cost is too large, and difficult to be secured. The amount is almost same as an environment management program for the Don Nai river basin.

Mr. Yoichi Iwai replied as follows;

- The JST will describe the proposed Projects and Programs more detail with considering linkage with the current conditions, and the direction of progress monitoring of WEMP.
- The JST will continue further discussion on the proposed institutional framework and the indicative cost estimation for actual implementation of WEMP with the Vietnamese side.

(8) Mr. Noriaki Murase, Representative of the JICA Vietnam Office, thanked the attendants, and appreciated discussion in this PCU meeting. He considered that the basic approach proposed by the draft WEMP was agreed among the attendants through this discussion.

- (9) Finally, Dr. Do Nam Thang appreciated the efforts for preparing the draft WEMP with thanking remarks to all attendances, and wrapped up the PCU meeting mentioning as follows:
- The water environment management plan should be implemented by the Vietnamese side. To forward WEMP, further proposals from the Japanese side will be highly welcomed. Through this fruitful discussion, WEMP will be expected to be a better feature.
 - The major points to be modified are summarized as follows:
 - 1) Clarify linkage between current issues and the proposed activities more clearly,
 - 2) Assess risks on implementation of WEMP, and
 - 3) Add description to follow the comments, such as carrying capacity in the model area.

End

ANNEX-1

List of Attendants of the PCU Meeting in October 2009

No.	Name	Position	Organization	Remark
1	Dr. Do Nam Thang	Team Leader	VST	VST Leader
2	Mr. Hoang Duong Tung	Director	CEM/ VEA	
3	Dr. Nguyen Minh Son	Vice-Director	IET/VAST	PCU member
4	Ms. Nguyen Thi Viet Hong	Officer	Department of Water Resources Management	PCU member
5	Mr. Nguyen Huu Thang	Officer	CEM/ VEA	VST member
6	Mr. Ho Kien Trung	Officer	Department of Waste Management and Environmental Amelioration/VEA	VST member
7	Ms. Nguyen Minh Phuong	Officer	Department of Waste Management and Environmental Amelioration/VEA	VST member/ CRCO member
8	Mr. Cao Minh Tuan	Officer	Department of Planning and Finance/VEA	VST member
9	Mr. Luong Hoang Tung	Officer	CEM/ VEA	
10	Ms. Tran Thi Le Anh	Officer	Department of Waste Management and Environmental Amelioration/VEA	CRCO member
11	Mr. Noriaki Murase	Representative	JICA Vietnam Office	
12	Mr. Yoichi Iwai	Team Leader	JST	
13	Mr. Kengo Naganuma	JST member	JST	
14	Mr. Tadashi Shoji	JST member	JST	
15	Mr. Yoshiki Yamamoto	JST member	JST	
16	Ms. Nguyen Thanh Lan	JST member	JST	
17	Mr. Nguyen Thanh Phuong	JST member	JST	
18	Ms. Nguyen Thi Tuyet Nhung	JST member	JST	

**The Study for Water Environment Management
on River Basins in Vietnam**

Agenda for the Project Coordination Unit Meeting in October 2009

1. Date:

- The 21st October (Wed) 2009, 14:00-16:00: at meeting room in Con Duan Hotel (2nd Floor)


2. Agenda

- | | |
|---|--------------------|
| 1. Opening and Introduction
(by Dr. Do Nam Thang – Leader of Vietnamese Study Team) | 14:00-14:05 |
| 2. Presentation: Water Environment Management Plan
in the Model Area of Cau River Basin (Output-4)
(by Mr. Yoichi Iwai, Team Leader of JICA Study Team) | 14:05-14:50 |
| 3. Discussion and Q/A
(chaired by Dr. Do Nam Thang –
Leader of Vietnamese Study Team) | 14:50-15:50 |
| 4. Closing Remarks
(by Dr. Do Nam Thang –
Leader of Vietnamese Study Team) | 15:50-16:00 |


End

Minutes of Meeting
on
the Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

Hanoi, 13 November 2009



Prof. Dr. Bui Cach Tuyen
Director General
Vietnamese Environment Administration



Mr. Yoichi Iwai
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on 4 March 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as “the Study”), the Government of Japan dispatched the Study Team headed by Mr. Yoichi Iwai through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

The Project Coordination Unit (PCU) Meeting was started by an introduction by Dr. Do Nam Thang, the Leader of the Vietnamese Study Team (VST), on 13 November 2009. Then Dr. Le Ke Son, Deputy Director General of VEA, stated the opening remark. Mr. Kengo Naganuma, JICA Study Team (JST), presented the Handbook for Formulation of Water Environment Management Plan.

Under the chairmanship of Dr. Le Ke Son, the overall discussion on the Handbook was held. The followings are major comments and suggestions in the discussion.

(1) Dr. Le Ke Son commented as follows:

- This Handbook is useful for formulation of a Water Environment Management Plan (WEMP). The logical approaches and methodologies of this Handbook are agreeable.
- Specific characteristics of river basins such as natural features, socioeconomic conditions, pollution source conditions, regional legal framework, and capacity of organizations should be considered from viewpoint of applicability. So, it is necessary to identify the factors to be considered more carefully.
- Most methodologies were already adopted in Vietnam, but some are not familiar in Vietnam. It is necessary to consider how to mix these methodologies well.

(2) Mr. Kengo Naganuma replied that this Handbook was developed based on the experiences of WEMP formulation in the model area. Priority factors to be considered are different in each river basin, but there is limitation to cover all conditions in this Handbook.

(3) Ms. Tran Thi Le Anh, a member of the Cau River Committee Office, commented as follows:

- The Handbook should be easy to understand but somewhat could be difficult to use for provincial officers such as classification and evaluation of pollution sources, application method of water quality simulation, and calculation of pollution load.
- The Handbook should have guidance not only to formulate WEMP but also to implement the plan.
- Key persons to be involved for formulating WEMP should be clarified clearly.



- The Handbook should be applied to river basins in nation-wide level, so its practicability should be examined carefully.
- The difference between provincial and inter-provincial river basins should be clarified.

(4) Mr. Kengo Naganuma replied to the comments as follows:

- The detail measures for classification and evaluation of pollution sources are explained in the “Guideline on Pollution Source Inventory Development for Water Environment Management at River Basin Level”. The Handbook is expected to be used together with other supporting tools prepared under the Study. Through effective use of these tools, users would understand the description of the Handbook.
- In order to cope with difficulties on water quality simulation, this Handbook suggests to formulate a technical advisory team composed of specialists.

(5) Dr. Le Ke Son commented that this Handbook should guide not for implementation of WEMP but formulation of the plan. Since the expected users may have different purposes, it is better to prepare several types of handbooks to meet these purposes. This Handbook is to be used by the central and provincial officers, so it should be practical rather than academic one.

(6) Mr. Yoichi Iwai, the Team Leader of JST, commented as follows:

- The Handbook introduces the general procedure for formulating WEMP based on the experiences obtained through the process of WEMP formulation in the model area. Unfortunately, JST would not know cases of other river basins. So, it is required to the Vietnamese side to develop and cultivate another approaches for formulating WEMP.
- The Handbook is draft version. The VST and JST will continue to work for improvement of its contents. The JST requests more concrete comments and proposals from the Vietnamese side.

(7) Dr. Do Nam Thang, the Team Leader of VST, commented as follows:

- As the handbook is a general document providing concept and roadmap for implementing a certain activity rather than providing specific steps, so the contents of this Handbook are considered suitable.
- Under the Study, it is difficult to have opportunities to apply the methodologies introduced in the Handbook and to obtain lessons for feedback. At this moment, the Handbook could be somewhat an academic product and would not ready to use sufficiently. Its trial use is recommended in the next project opportunities.

(8) Mr. Yutaka Matuzawa, JICA expert in MONRE, commented as follows:

- The Vietnamese government has promulgated the several legislations on river basin management such as the Decree No. 120. This decree is a fundamental legal basis for river

basin water environment management. The Handbook should focus the relation with this Decree 120 in the section of “Introduction”.

- The VST and JST prepared several supporting tools of the Handbook under the Study, so the Handbook should add description to assist users to refer these outputs.
- It is recommended that an appendix of the Handbook has specific information to support developer of WEMP such as surface water quality standard, QCVN 08:2008/BTNMT.

(9) Dr. Hoang Duong Tung, Director of the Center of Environmental Monitoring (CEM) commented as follows:

- A river usually has different characteristics from upper to lower reach, so a method to divide into several river sections setting different targets and measures is appropriate.
- It is recommended to apply it to the Nhue-Day river basin.
- To add more information concerning to the WEMP framework is useful for easy understanding. As for Figure 2.1-3, it is suggested to add description on what kinds of pollution control approaches were applied by adopted measures.
- The timeframe of WEMP should be explained highlighting priority projects and programs, implementation bodies, and financial sources.

(10) Ms. Nguyen Thi Kim Quy, the International Cooperation Department (ICD) of MONRE highly appreciated the efforts of VST and JST. She expected that the Vietnamese side will continue to discuss to find out a specific roadmap for applying WEMP in Vietnam.

(11) Mr. Ho Kien Trung, a member of VST, commented as follows:

- For formulating WEMP in a certain area such as lower reach of a river basin, it is necessary to consider not only characteristics in the planning area, but also in surrounding area such as upper reach of the river basin.
- The expected users and persons to be involved for formulating WEMP should be specified more clearly. Required information to specify those items will be provided later.

(12) Mr. Kengo Naganuma, replied as follows:

- The description on necessity of consideration of characteristics of surrounding area will be added in the Handbook.
- Further information and opinions from the Vietnamese side are welcomed for formulating more practical WEMP.

(13) Finally, Dr. Le Ke Son appreciated the efforts for preparing the Handbook with thanking remarks to all attendances, and wrapped up the PCU meeting mentioning as follows:

- Several weeks ago, the Prime Ministers of Mekong river basin countries gathered together in Japan to discuss future cooperation for management of Mekong river basin. This shows that

coordination among the concerned stakeholders is very important to solve issues at river basin level.

- Even in the domestic river basins such as Cau and Dong Nai river basins, their management are not so easy. There have been many projects and workshops for river basin management, but effective river basin management approach has not been identified well at this moment.
- The Study is highly appreciated to address this complicated field. The outputs of the Study could be useful tools for starting actual work for river basin management.
- The Handbook is one of the most important outputs which contribute to the effective management of river basin. After listening to all comments and reading the Handbook carefully, it is found that the Handbook has both academic and practical meaning.
- To enhance its practicability, it is recommended to add illustrated methodologies on experiences of WEMP formulation, and to review and modify terminologies used in the Vietnamese version.
- It is recommended that the relevant sections of VEA, such as the Department of Waste Management and Environmental Amelioration, the Institute of Environmental Management Science, and CEM, will continue to effort to improve practicability of the Handbook after the Study.
- The Handbook will be expected to be introduced to the River Basin Committees.

End



ANNEX-1

List of Attendants of the PCU Meeting in October 2009

No.	Name	Position	Organization	Remark
1	Dr. Le Ke Son	Deputy Director General	VEA	PCU
2	Dr. Do Nam Thang	Officer	Institute of Environmental Management Science/VEA	VST Leader
3	Ms. Nguyen Thi Kim Quy	Officer	ICD/ MONRE	PCU
4	Ms. Tran Thi Le Anh	Officer	Department of Waste Management and Environmental Amelioration/VEA	PCU
5	Ms. Nguyen Minh Phuong	Officer	Department of Waste Management and Environmental Amelioration/VEA	VST
6	Mr. Ho Kien Trung	Officer	Department of Waste Management and Environmental Amelioration/VEA	VST
7	Mr. Nguyen Viet Thang	Officer	Department of International Cooperation and Science Technology, VEA	PCU
8	Dr. Hoang Duong Tung	Director	CEM/VEA	
9	Mr. Yutaka Matuzawa	JICA expert	MONRE	
10	Mr. Yoichi Iwai	Leader	JST	
11	Mr. Kengo Naganuma	Member	JST	
12	Mr. Tadashi Shoji	Member	JST	
13	Ms. Yuko Nozue	Member	JST	
14	Ms. Nguyen Thanh Lan	Supporting Staff	JST	
15	Ms. Nguyen Thi Tuyet Nhung	Supporting Staff	JST	
16	Mr. Nguyen Thanh Phuong	Supporting Staff	JST	

**The Study for Water Environment Management
on River Basins in Vietnam**

Agenda for the Project Coordination Unit Meeting in November 2009

1. Date and Place:

- 13th November (Fri) 2009, 14:00-16:00: at meeting room in VEA

2. Agenda

- | | |
|---|--------------------|
| 1. Opening and Introduction
(by Dr. Do Nam Thang – Leader of Vietnamese Study Team) | 14:00-14:05 |
| 2. Opening Remarks
(by Dr. Le Ke Son, Deputy Director of VEA) | 14:05-14:10 |
| 3. Presentation: Handbook for Formulation of Water Environment
Management Plan (Output-5)
(by Kengo Naganuma, JICA Study Team) | 14:10-14:50 |
| 4. Discussion and Q/A
(chaired by Dr. Le Ke Son, Deputy Director of VEA) | 14:50-15:50 |
| 5. Closing Remarks
(by Dr. Le Ke Son, Deputy Director of VEA) | 15:50-16:00 |

End



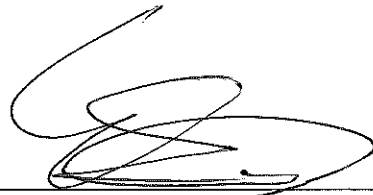
Minutes of Meeting
on
the Project Coordination Unit Meeting
for
the Study for Water Environment Management on River Basins
in Vietnam

Hanoi, 21 December 2009



May

Prof. Dr. Bui Cach Tuyen
Director General
Vietnam Environment Administration
Ministry of Natural Resources and Environment



Mr. Yoichi IWAI
Team Leader
The JICA Study Team
Nippon Koei Co., Ltd.

In accordance with the Minutes of Meeting (M/M) and the Scope of Work (S/W) signed on 4 March 2008, between the General Director of Vietnam Environment Protection Agency (VEPA) in the Ministry of Natural Resources and Environment (MONRE) and the Resident Representative of the Vietnam Office of the Japan International Cooperation Agency (JICA) for the Study for Water Environment Management on River Basins in Vietnam (hereinafter referred to as “the Study”), the Government of Japan dispatched the Study Team headed by Mr. Yoichi Iwai through the Japan International Cooperation Agency (JICA) for the implementation of the Study to the Socialist Republic of Vietnam.

The Project Coordination Unit (PCU) Meeting was started by an introduction by Dr. Do Nam Thang, the Leader of the Vietnamese Study Team (VST), on 13 November 2009. Then Mr. Senro Imai, the Leader of the JICA Advisory Mission, stated the opening remarks. Mr. Yoichi Iwai, the Leader of JICA Study Team (JST), presented overall contents of the Draft Final Report (dF/R) of the Study.

Under the chairmanship by Prof. Dr. Bui Cach Tuyen, Director General of VEA, the discussion on dF/R was held. The followings are major comments and suggestions in the discussion.

- (1) Prof. Dr. Bui Cach Tuyen highly appreciated the Study and its outputs commenting as follows;
 - Vietnam has focused on river basin management and promulgated legal framework for its implementation targeting three priority river basins namely Cau river, Nhue-Day river, and Dong Nai river.
 - Currently, VEA is requested to strengthen capacity on the river basin management. The Study has provided practical experiences on capacity development timely.
 - The outputs of the Study are expected to be applied for actual water environment management activities to contribute to river basin management in Vietnam.
- (2) Dr. Do Nam Thang commented that VST has learnt a lot of useful knowledge and experiences through co-working with JST. He acknowledged Prof. Dr. Bui Cach Tuyen to pay special attentions to the Study, and thanked VEA/MONRE staff for their efforts and contributions for the Study.
- (3) Ms. Nguyen Thi Kim Quy, officer of ICD/MONRE, thanked JICA and requested for continuous support for water environment management through new projects in future.
- (4) Ms. Hoang Thu Thuy, program officer of JICA Vietnam Office, asked a plan for application of the outputs of the Study, and inquired whether the Vietnamese side needs any support from JICA to apply.
- (5) Prof. Dr. Bui Cach Tuyen replied that the Vietnamese side will disseminate the outputs of the Study in the fifth meeting of Cau River Basin Committee to be held on 26th December 2009, and in another

meeting related to the Dong Nai river basin in January 2010. He questioned JICA related to copyright of the outputs and necessary procedure of JICA for dissemination.

Mr. Senro Imai welcomed for dissemination of the outputs after finalization, and recommended to confirm necessary procedure to JICA Vietnam Office regarding the copyright issue.

- (6) Dr. Do Nam Thang requested for continuous support from JICA to the Cau river basin through the new project covering whole Cau river basin, and for further support on trial application of the outputs.
- (7) Mr. Senro Imai highly appreciated that the Vietnamese side has intention to apply the outputs. He is convinced that the outputs will contribute to successful implementation of Decree No. 120/2008/HD-CP for river basin management. Through such actual application, the outputs could be more understandable and user friendly. Regarding the new succeeding project, it should be designed carefully to achieve its objectives considering regional specific conditions.
- (8) Mr. Yasutoshi Sagami, associate expert of JICA Headquarters, asked the Vietnamese side about their opinions and comments on the presentation slide No. 61 and 66 regarding JST's proposal on coordination and dissemination mechanism of the water environment management plan.
Dr. Do Nam Thang replied that the proposed concept could be fine and acceptable, and the Vietnamese side would prepare detailed coordination mechanism to solve existing difficulties considering the proposal described in dF/R.
- (9) Finally, Prof. Dr. Bui Cach Tuyen thanked for the support from Japanese Government and wrapped up the PCU meeting with wishing further cooperation between MONRE and JICA.

End

ANNEX-1

List of Attendants of the PCU Meeting in December 2009

No.	Name	Position	Organization	Remark
1	Prof. Dr. Bui Cach Tuyen	Director General	VEA	PCU Chairman
2	Ms. Nguyen Thi Kim Quy	Officer	ICD/ MONRE	PCU
3	Ms. Nguyen Viet Hong	Officer	DWRM/MONRE	PCU
	Ms. Pham Anh Tu	Officer	Department of International Cooperation and Technology/VEA	PCU
4	Dr. Do Nam Thang	Officer	Institute of Environmental Management Science/VEA	VST Leader
5	Mr. Nguyen Huu Thang	Officer	CEM/VEA	VST
6	Ms. Nguyen My Hoang	Officer	Department of Pollution Control/VEA	VST
7	Mr. Cao Minh Tuan	Officer	Department of Planning and Finance/VEA	VST
8	Mr. Senro Imai	Leader	JICA Advisory Mission	
9	Dr. Hisako Ogura	Member	JICA Advisory Mission	
10	Mr. Yasutoshi Sagami	Associate expert	JICA Headquarters	
11	Mr. Yutaka Matuzawa	JICA expert	MONRE	
12	Ms. Hoang Thu Thuy	Program officer	JICA Vietnam Officer	
13	Mr. Yoichi Iwai	Leader	JST	
14	Mr. Kengo Naganuma	Member	JST	
15	Ms. Nguyen Thanh Lan	Supporting Staff	JST	
16	Ms. Nguyen Thi Tuyet Nhung	Supporting Staff	JST	
17	Mr. Nguyen Thanh Phuong	Supporting Staff	JST	

Attachment-2: Training in Japan

1 Water Environment Management Policy Course

(1) Outline

The training in Japan during the first year was planned and implemented under the Study from 19th to 25th October in 2008. It is entitled Water Environmental Management Policy Course aiming at understanding the policies and systems of Japanese river basin water environmental management, and roles of central and local governments and relevant organizations. Its participants are listed in Table-1

Table 1 Participants on Water Environment Management Policy Course

No.	Name	Position	Organization
1	Mr. Phung Van Vui	Deputy Director General	VEPA/MONRE
2	Dr. Do Nam Thang	Officer of River Basin and Coastal Zone Management Division	VEPA/MONRE
3	Mr. Tran Van Thinh	Deputy Director	Thai Nguyen DONRE
4	Mr. Tran Nguyen	Deputy Director	Bac Kan DONRE
5	Mr. Dinh Viet Cuong	Officer	VEPA/MONRE

Source: JICA Study Team

(2) Program

Considering the purpose of training, the following program was presented to the participants.

Table 2 Program of Water Environmental Management Policy Course

Day	Time	Activities	Venue	Lecturer	Stay
Oct. 19 (Sun)	-	- Opening ceremony at JICA Tokyo - Orientation of training course	TIC Room SR12	- JICE	TIC
Oct. 20 (Mon)	9:40 – 11:40	- Presentation of Job Report by trainees and discussion on water environmental management		- Advisory committee of the Study for Water Environmental Management in Vietnam	TIC
	13:00 – 15:00	- Lecture and discussion: Japanese experience and current status of Japanese environmental administration		Mr. Hiroyuki Yamamoto (OECC)	
	15:15 – 17:45	- Courtesy call - Lecture and discussion: Japanese experience on water environmental management	Ministry of Environment	- Water Environmental Management Division, Environmental Management Bureau of MOE	
Oct. 21 (Tue)	9:00 – 12:00	- Lecture and visitation: Inspection on pollution sources and environmental monitoring activities by local administration	TIC Room SR6	Mr. Teruo Ida (Open Research Center of Risho University/ Environmental Bureau of Tokyo Metropolitan Government)	TIC
	13:30 – 15:30	- Lecture and discussion: Case study of river basin management - Historical review of river basin management by Yahagi river Basin Management Committee	TIC Room SR7	Mr. Kenji Noda (Yahagi River Environmental Technology Research Committee) Mr. Tadami Shimazaki (Hazama Cooperation/ Yahagi River Environmental Technology Research Committee)	
Oct. 22 (Wed)	9:00 – 11:00	- Lecture on historical experience for water environmental improvement of Sumida river	-	Dr. Haruo Ando (Tokyo Metropolitan Research Institute for Environmental Protection)	TIC
	11:00 – 12:30	- Site visiting: Observation of Sumida river		-	
	14:30 – 15:30	- Lecture and discussion: Case study of pollution load control measures for water quality management of Lake Teganuma		Chiba Pref. Environmental Research Center	
Oct. 23 (Thr)	9:00 – 11:00	- Lecture and discussion: Research on water pollution load control technique on industrial wastewater	ditto	Mr. Koichi Kiuchi (Chiba Prefecture Environmental Research Center)	TIC
	12:30 – 14:30	- Site visiting: Observation of self-pollution load control system by enterprises	Maruzen Petrochemical Co.	Mt. Fuchizaki (Maruzen Petrochemical Co.)	
	15:00 – 17:00	- Courtesy call to JICA Tokyo Head Office	JICA Tokyo Head Office	-	
Oct. 24 (Fri)	11:00 – 11:30	- Presentation of administrative approach based on the experiences obtained through the training in Japan	TIC Room SR15	- Advisory committee of the Study for Water Environmental Management in Vietnam	TIC
	13:00 – 15:00	- Evaluation of training course		JICE	
	15:15 –	- Closing ceremony		JICE	

Day	Time	Activities	Venue	Lecturer	Stay
	15:45				
	15:45 – 16:00	- Leave from Toyo and arrive at Hanoi	-	-	
Oct. 25 (Sat)		- Opening ceremony at JICA Tokyo - Orientation of training course	TIC Room SR12	- JICE	-

Note TIC: Tokyo International Center, JICE: Japan International Cooperation Center, OECC: Overseas Environmental Cooperation Center
At Maruzen Petrochemical Co. the following system was observed.

- Separated treatment flow diagram by different type of wastewater, -Treatment system of cooling water
- Treatment system of oily wastewater, -Treatment system of domestic wastewater from industry
- Treatment system of industrial solid waste

Source: JICA Study Team

2 Water Environment Management Administration Course

(1) Outline

The training in Japan during the second year was planned and implemented under the Study from 29th July to 11th August in 2009. It is entitled Water Environment Administration Course aiming at understanding Japanese river water management and pollution control administration systems. Its participants are listed in Table 2.

Table 2 Participants on Water Environment Management Administration Course

No.	Name	Position	Organization
1	Ms. NGUYỄN THỊ MỸ HOÀNG	Officer	Department of Pollution Control/VEA
2	Ms. NGUYỄN THỊ KIM QUÝ	Senior Officer	International Cooperation Department/MONRE
3	Mr. PHI LONG	Officer	Department of Science, Technology and International Affairs/VEA
4	Mr. NGUYỄN HỮU THẮNG	Officer	Centre for Environment Monitoring/VEA
5	Mr. HỒ KIẾN TRUNG	Officer	Department of Waste Management and Environment Amelioration/VEA
6	Ms. NGUYỄN MINH PHƯƠNG	Officer	Department of Waste Management and Environment Amelioration/VEA
7	Mr. CAO MINH TUẤN	Officer	Department of Environment Planning and Finance/VEA
8	Ms. TRẦN THỊ HƯƠNG	Manager	Division of Coordination and Environment Impact Assessment (CEIA)/Thai Nguyen DONRE
9	Mr. LƯƠNG PHƯƠNG NAM	Manager	Environment Impact Assessment and Analysis Department/Bac Kan DONRE

Source: JICA Study Team

(2) Program

Considering the purpose of training, the following program was presented to the participants.

Table 3 Program of Water Environment Administration Course

Month and Date	Hour	Theme	Trainer etc	Place	Stay	
7	29	Wed	Leave from Hanoi at 23:00 (JL572)	-	-	
	30	Thr	Arrive at Narita at 6:45 (JL572)	-	-	
			13:00 - 15:00	- Opening ceremony at JICA Tokyo - Orientation of training course	JICA	TIC
			16:00 - 17:00	- Courtesy call to JICA Tokyo head office	JICA	TIC
	31	Fri	9:30-11:30	- Lecture on Japanese experience on water environment management	Advisory committee persons for the Study for Water Environment Management in Vietnam	TIC
			13:00-14:30	- Presentation of Job Report by trainees and discussion on water environment management		
			15:30-17:00	- Lecture and discussion: Planning process of water environment management	JICA Study Team	
	8	1	Sat	Self-teaching	-	TIC
		2	Sun	Holiday	-	TIC
3		Mon	10:00-12:00	- Introduction of water environment management in Sumida river	Dr. Haruo Ando	TIC
			13:00-17:00	- History and roles of Environmental Agency to overcome industrial wastewater problem, and wastewater treatment technique adopted	Dr. Akira Morishima	TIC
4		Tue	10:00-12:00	- Lecture on Japanese experience on water environment management	Ministry of Environment	Ministry of Environment
			14:00-15:30	- Lecture on pollution control on livestock wastewater	National Institute of Livestock and Grassland Science	
			15:30-17:00	- Lecture on pollution control on mining wastewater	Japan Oil, Gas and Metals National Cooperation	
5		Wed	10:00-12:00	- Lecture on domestic wastewater treatment plan with combination of sewerage system and septic tanks	Mr. Seisaku Endo	TIC
			14:30-16:30	- Visiting of steel industry	JFE Steel Industry	千葉市
6		Thr	10:00-12:00	- Lecture on inspection on pollution sources and environmental monitoring activities by local administration	Environmental Department of Chiba Prefecture	Chiba prefecture office
			14:00-16:30	- Visiting of environmental laboratory	Environmental laboratory in Chiba prefecture	Environmental laboratory
7	Fri	10:00-12:00	- Lecture on domestic wastewater treatment measures with environmental awareness raising activity	Dr. Hisako Ogura	Chiba Prefecture Environmental Institute	
		14:00-16:00	- Visiting of industrial park	Keiyo Industrial Park	Keiyo Industrial Park	
8	Sat	Self-teaching	-	TIC		
9	Sun	Holiday	-	TIC		
10	Mon	10:00 ~ 12:00	- Preparation of action plan	-	TIC	
		13:00-16:00	- Presentation of action plan and evaluation - Closing ceremony	- Advisory committee persons for the Study for Water Environment Management in Vietnam		
11	Tue	Leave from Toyo and arrive at Hanoi at 14:30 (JL/VN5135)	-	-		

TIC: JICA Tokyo Center

3. Water Environment Management Course for the Cau River Committee

(1) Outline

The training in Japan for CRC was planned and implemented under the Study from the 23rd to 30th of August 2009. It is entitled Water Environment Management Course for the Cau River Committee aiming at understanding Japanese water environmental management system based on river basin management approach. Its participants are listed in Table 4

Table 4 Water Environment Management Course for the Cau River Committee

No.	Name	Position	Organization
1	Prof. Pr. Nguyen The Dong	Vice Director General.	Vietnam Environment Administration, Ministry of Natural Resources and Environment
2	Dr. Hoang Ngoc Duong	Vice Chairman	Bac Kan Provincial People's Committee
3	Msc. Nguyen Van Linh	Vice Chairman	Bac Giang Provincial People's Committee
4	Mr. Nguyen Quoc Minh	Director	Dept. of Agriculture and Rural Development, Thai Nguyen Provincial People's Committee
5	Dr. Nguyen Tien Hoa	Director, Dept. of Construction	Hai Duong Provincial People's Committee
6	Mr. Nguyen Van Khuoc	Head of Division of Agriculture and Rural Development	Office of Vinh Phuc Provincial People's Committee
7	Msc. Nguyen Vien Dan	Deputy Director	Ministry of Natural Resources and Environment
8	Msc. Tran Thi Ngoc	Officer,	VEA
9	Msc. Vo Thinh Hien	Officer,	VEA
10	Msc. Vu Dinh Hieu	Director	Centre for Environmental Consultancy and Technology, Vietnam Environment Administration, Ministry of Natural Resources and Environment
11	Mr. Pham Kien Trung	Officer	Centre for Environmental Consultancy and Technology, Vietnam Environment Administration, Ministry of Natural Resources and Environment
12	Msc. Pham Thi Mai Hoa	Officer	Centre for Environmental Consultancy and Technology, Vietnam Environment Administration, Ministry of Natural Resources and Environment
13	Dr. Phan Thi Thanh Hoi	Officer	Centre for Environmental Consultancy and Technology, Vietnam Environment Administration, Ministry of Natural Resources and Environment

Source: JICA Study Team

(2) Program

Considering the purpose of training, the following program was presented to the participants.

Table 5 Program of Water Environment Management Course for the Cau River Committee

Month and Date	Hour	Theme	Trainer etc	Place
8/23 Sun	Leave from Hanoi at 0:05 am and arrive at Narita at 6:50 am (JLVN5136)	-	-	-
24 Mon	9:40 - 11:40	- Opening ceremony at JICA Tokyo - Orientation of training course	JICE	TIC
	13:00 - 15:15	- Lecture on function of river basin management plan and role of river basin management committee	<i>to be confirmed</i>	
	15:30 - 17:45	- Lecture on land use planning and zoning	<i>to be confirmed</i>	
25 Tue	9:30-12:00	- Courtesy call to MoE - Lecture on Japanese experience on water environment management	Ministry of Environment	Ministry of Environment
	13:30-16:30	- Discussion on Pollution Control Approach (Output-3 of Study) and Water Environment Management Plan in the Model Area in Cau river basin (Output-4)	JICA Study Team	TIC
26 Wed	9:00 - 11:00	- Introduction of water environment management in Sumida river	<i>to be confirmed</i>	TIC
	14:00 - 16:00	- Visiting of Sumida river	JICA Study Team	-
	16:30 - 17:30	- Courtesy call of JICA	JICA	JICA
27 Thr	10:00-12:00	- Visiting of industrial park	Keiyo Industrial Park	Keiyo Industrial Park
	14:00-16:00	- Visiting of domestic wastewater treatment facility	<i>to be confirmed</i>	<i>to be confirmed</i>
28 Fri	9:00-11:30	- History and roles of Environmental Agency to overcome industrial wastewater problem, and consideration of economic approach	<i>to be confirmed</i>	TIC
	13:30-15:30	- Presentation of action plan and evaluation - Closing ceremony	- Advisory committee persons for the Study for Water Environment Management in Vietnam	
29 Sat	-	-	-	TIC
30 Sun	Leave from Narita at 11:00 am and arrive at Hanoi at 2:30 pm (JLVN5135)	-	-	-

TIC: JICA Tokyo Center