

タイ王国 天然資源環境省
環境政策計画局
第8地域環境事務所
第8地域管轄県天然資源環境事務所

タイ王国
地方環境管理能力向上及び連携強化
プロジェクト

プロジェクト事業完了報告書

添付資料 Volume-1

平成28年2月
(2016年)

独立行政法人
国際協力機構 (JICA)

株式会社 オリエンタルコンサルタンツグローバル

環境
JR
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1. プロジェクトの主要な会議

Records of Discussion

Date	Participants	Venue	Objectives
September 28, 2012	ONEP/ JICA	Bangkok	<ul style="list-style-type: none"> To agree the project outline and contents of the Project

Joint Coordination Committee Meeting

Date	Participants	Venue	Objectives
April 10, 2013	ONEP/REO8/5PONREs/ Other department in MNRE	Bangkok	<ul style="list-style-type: none"> To make common understanding of the Project, and discuss the directions of the Project
September 24, 2014	ONEP/REO8/5PONREs/ Other department in MNRE	Bangkok	<ul style="list-style-type: none"> To report progress of the Project based on Progress Report-2
May 15, 2015	ONEP/REO8/5PONREs/ Other department in MNRE	Bangkok	<ul style="list-style-type: none"> To report progress of the Project based on Progress Report-3
May 15, 2015	ONEP/REO8/5PONREs/ Other department in MNRE	Bangkok	<ul style="list-style-type: none"> To report achievement of the Project based on Project Completion Report

Kickoff Meeting of Phase-2

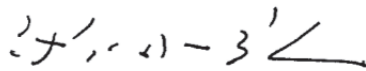
Date	Participants	Venue	Objectives
May 30, 2014	ONEP/REO8/JICA HQ/JICA Thailand/JET	Bangkok	<ul style="list-style-type: none"> To clarify and agree the activities of Phase-2

*MM of each meeting are attached as below.

1.1. 協議議事録

RECORD OF DISCUSSIONS
ON
THE PROJECT FOR STRENGTHENING ENVIRONMENTAL
MANAGEMENT AND LINKAGES AMONG CENTRAL,
REGIONAL, PROVINCIAL AND LOCAL LEVELS
IN
THE KINGDOM OF THAILAND
AGREED UPON BETWEEN
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

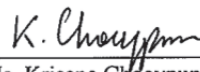
Bangkok, 28 September, 2012



Mr. Kazuhiro Yoneda
Chief Representative
Thailand Office
Japan International Cooperation Agency
Japan



Mr. Wijarn Simachaya
Secretary-General,
Office of Natural Resources and
Environmental Policy and Planning,
Ministry of Natural Resources and
Environment
Kingdom of Thailand



Ms. Krisana Choeypun
Director,
The Eighth Regional Environmental Office,
Ministry of Natural Resources and
Environment
Kingdom of Thailand

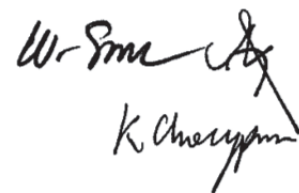
Based on the minutes of meetings on the Detailed Planning Survey on the Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels (hereinafter referred to as “the Project”) signed on January 31st, December 21st, 2011, and May 16th, 2012 respectively among the Office of Natural Resources and Environmental Policy and Planning (hereinafter referred to as “ONEP”), Ministry of Natural Resources and Environment (hereinafter referred to as “MNRE”), the Eighth Regional Environmental Office (hereinafter referred to as “REO8”), MNRE and the Japan International Cooperation Agency (hereinafter referred to as “JICA”), JICA held a series of discussions with ONEP and relevant organizations to develop a detailed plan of the Project.

Both parties agreed the details of the Project and the main points discussed as described in the Appendix 1 and the Appendix 2 respectively.

Both parties also agreed that ONEP and REO8, the counterparts to JICA, will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of the Kingdom of Thailand.

The Project will be implemented within the framework of the Agreement on Technical Cooperation between the Government of Japan and the Government of the Kingdom of Thailand (hereinafter referred to as “GOT”) signed on November 5th, 1981 (hereinafter referred to as “the Agreement.”).

- Appendix 1: Project Description
- Appendix 2: Main Points Discussed
- Appendix 3: Minutes of Meetings on the Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels



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Appendix 1

PROJECT DESCRIPTION


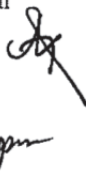
I. BACKGROUND

Although GOT has been promoting decentralization and has already transferred administrative powers over natural resources and environment management (NREM) to Local Administrations (hereinafter referred to as “LAs”, which include Orborjor, Tessaban and Orbortor), LAs remain limited in their administrative capacity for NREM. Furthermore, the supporting systems along the central and provincial government line (Office of Natural Resources and Environmental Policy and Planning (ONEP), Regional Environmental Office (REO) and Provincial Office of Natural Resources and Environment (PONRE)) that accompany decentralization have not been adequately strengthened.

GOT has given funds to the LAs in 76 provinces for the purpose of improving local environmental quality, especially for municipal solid waste and domestic wastewater treatment plants construction and rehabilitation in major cities. However, the performances of these facilities are not enough to guarantee the adequate sanitation. When considering the LAs’ capabilities, a large number of LAs have insufficient resources, both technical and financial, in terms of skilled manpower and inadequate finances to cover the operation and maintenance costs. Furthermore, most of LAs do not raise sufficient funds using the user charge systems to cover operation and maintenance costs. Therefore, Ministry of Natural Resources and Environment (MNRE) has launched the policy to encourage the use of Polluter Pays Principle (PPP) for environmental pollution management. In addition, MNRE also enforce LAs to collect waste treatment fees in accordance with municipal laws. The revenue can be used for improving waste treatment services, as well as tackling other natural resources and environmental problems.

MNRE also gives the importance to Environmental Information System (EIS) which can deliver natural resources and environment information to the public, as well as involved organizations. Such EIS also includes geographic information system (GIS) database. 16 REOs have been the GIS Database Centers for NREM in their responsible regions. These centers are expected to provide high quality and updated environmental data and information of their covered provinces in the region. This database is an important factor for improving environmental management, as well as supporting decision making processes. In 2009, MNRE’s budget was given to the REOs to set up the “Pollution Warning Center” in order to enhance NREM in line with the current environmental GIS database center. Therefore, the integrated environmental database is derived using GIS, and includes pollution data. Warning messages and details can be relayed through various media accurately and in a timely manner in order to protect public safety and enhance good quality of life and environment. The information includes water quality, air quality, etc.

Moreover, “The Study on Supporting System for Local Administrations on Natural Resources and Environmental Management in the Kingdom of Thailand” (hereinafter referred as to “the Study”), which has been conducted under JICA’s technical



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cooperation program, has proposed some recommendations. To strengthen capacities of agencies responsible for NREM in central, provincial, and local administration, and at the same time strengthen the linkage between levels, the following recommendations should be considered:

1. Strengthening linkages between organizations relating to NREM at central/regional/provincial/local levels;
2. Raising awareness among LAs and residents;
3. Establishing a NREM administration structure at the provincial level, especially the Orborjor; and
4. Utilizing the NREM GIS database in NREM

The success of the establishment of provincial level NREM relies on the successful raising of awareness in each LA, especially the awareness of the chiefs of Orborjor and major Tessaban. The improvement to the current situation of NREM in their local administration and the need to allocate sufficient staff and budget towards NREM are essential. As most LAs in Thailand currently do not have an established NREM structure, an attempt at rapid and widespread establishment is probably unrealistic. Therefore, MNRE will take a concerted supporting effort toward a few target provinces/Orborjor, whose chiefs are open to the idea of improvement of NREM. The improvement in Orborjor across Thailand should be attempted on the basis of established improvement records through such targeted efforts.

Since decentralization of NREM was commenced only 10 years ago, neither MNRE nor LAs have sufficient experience and capacity to conduct a proper local NREM. In addition, there is no good example of the model for dissemination of a proper local NREM. Therefore, MNRE needs to implement the projects clarified below under JICA's technical cooperation project program.

II. OUTLINE OF THE PROJECT

Details of the Project are described in the Logical Framework (Project Design Matrix: PDM) (Annex I) and the tentative Plan of Operation (PO) (Annex II).

1. Input

(1) Input by JICA

(a) Dispatch of Experts

JICA will provide the services of Japanese experts as listed in Annex III.

(b) Training

JICA will provide on-site trainings in the field operations in Thailand through cooperative works with Thai counterpart personnel. JICA will also receive the Thai personnel connected with this Project for training in Japan.

(c) Machinery and Equipment

JICA will provide such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project

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as listed in Annex IV. The provision of Article VIII of the Agreement will be applied to the Equipment.

- (d) Local Cost
JICA will shoulder minimum local cost necessary for implementation of the Project except for what is described in the following input by ONEP and REO8.

(2) Input by ONEP and REO8

ONEP and REO8 will take necessary measures to provide at its own expense:

- (a) Services of ONEP's and REO8's counterpart personnel and administrative personnel as listed in Annex V;
- (b) Suitable office space with necessary equipment at both ONEP and REO8;
- (c) Information as well as support in obtaining medical service;
- (d) Credentials or identification cards;
- (e) Available data (including maps and photographs) and information related to the Project;
- (f) Running expenses necessary for the implementation of the Project;
- (g) Expenses necessary for transportation within Thailand of the equipment as well as for the installation, operation and maintenance thereof; and
- (h) Necessary facilities to the JICA experts for the remittance as well as utilization of the funds introduced into Thailand from Japan in connection with the implementation of the Project

2. Implementation Structure

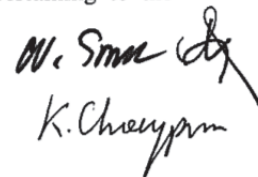
The Project organization chart is given in the Annex VI. The roles and assignments of relevant organizations are as follows:

(1) ONEP and REO8

- (a) Project Director
Director of the Office of National Environment Board, ONEP as the Project Director will be responsible for overall administration and implementation of the Project.
- (b) Project Manager
Director of REO8, as well as Director of Policy and Planning Section, Office of National Environment Board, ONEP as the Co-Project Managers will be responsible for managerial and technical matters of the Project.

(2) JICA Experts

- (a) JICA Project Leader
JICA Project Leader will provide necessary recommendations and advice to the Project Director and Co-Project Managers on any matters pertaining to the implementation of the Project.
- (b) JICA Experts
JICA Experts will give necessary technical guidance, advice and recommendations to ONEP and REO8 on technical matters pertaining to the implementation of the Project.


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(3) Joint Coordinating Committee

Joint Coordinating Committee (hereinafter referred to as “JCC”) will be established in order to facilitate inter-organizational coordination. JCC will be held at least once a year and whenever deems it necessary. JCC will approve an annual work plan, review overall progress, conduct monitoring and evaluation of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of proposed members of JCC is shown in the Annex VII.

3. Project Sites

The project sites are the five (5) provinces under REO8’s jurisdiction, namely Ratchaburi, Kanchanaburi, Samut Songkhram, Phetchaburi, and Prachuap Khiri Khan.

4. Duration

The duration of the Project will be three (3) years from the date of either the first dispatch of JICA expert(s) or the first arrival of Trainee(s) in Japan.

5. Reports

The following reports will be jointly prepared in English and Thai by ONEP, REO8 and JICA Experts:

- (1) Annual Progress Reports after the commencement of the Project
- (2) Final Report before the end of the Project

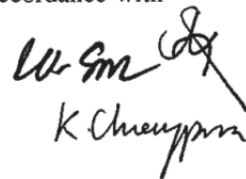
6. Environmental and Social Considerations

- (1) ONEP and REO8 agreed to abide by ‘JICA Guidelines for Environmental and Social Considerations (April 2010)’ in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF ONEP AND REO8

1. ONEP and REO8 will take necessary measures to:

- (1) ensure that the technologies and knowledge acquired by the Thai nationals as a result of Japanese technical cooperation contributes to the economic and social development of Thailand, and that the knowledge and experience acquired by the personnel of Thailand from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and
- (2) grant privileges, exemptions and benefits to the JICA experts referred to in II-1(1) above and their families, which are no less favorable than those granted to experts of third countries performing similar missions in Thailand under the Colombo Plan Technical Cooperation Scheme.
- (3) Other privileges, exemptions and benefits will be provided in accordance with the Agreement.


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IV. EVALUATION

JICA, ONEP and REO8 will jointly conduct the following evaluations and reviews:

1. Mid-term review around the middle of the cooperation term
2. Terminal evaluation during the last six (6) months of the cooperation term

JICA will conduct the following evaluations and surveys to mainly verify sustainability and impact of the Project and draw lessons. ONEP and REO8 are required to provide necessary support for them.

1. Ex-post evaluation three (3) years after the project completion, in principle
2. Follow-up surveys on necessity basis

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting support for the Project, ONEP and REO8 will take appropriate measures to make the Project widely known to the people of Thailand.

VI. MUTUAL CONSULTATION

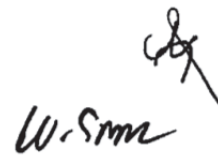

JICA, ONEP and REO8 will consult each other whenever any major issues arise in the course of the Project implementation.

VII. AMENDMENTS

The record of discussions may be amended by the minutes of meetings among JICA, ONEP and REO8.

The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the record of discussions.

Annex I	Tentative Project Design Matrix (PDM)
Annex II	Tentative Plan of Operation (PO)
Annex III	List of JICA Experts
Annex IV	List of Machinery and Equipment
Annex V	List of Thai Counterpart Personnel
Annex VI	Project Organization Chart
Annex VII	List of Members of Joint Coordinating Committee


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Appendix 1

Annex I: Tentative Project Design Matrix (PDM)

The Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels

PDM Ver.1 August 2012

Target area: Five (5) Provinces under REO8's jurisdiction: Ratchaburi, Kanchanaburi, Samut Songkhram, Phetchaburi, Prachuap Khiri Khan
Target group: Office of Natural Resources and Environmental Policy and Planning (ONEP), the Eighth Regional Environmental Office (REO8), Provincial Offices of Natural Resources and Environment (PONRE) of Ratchaburi, Kanchanaburi, Samut Songkhram, Phetchaburi, and Prachuap Khiri Khan
Cooperation period: Three (3) years starting from October 2012 to September 2015

Narrative Summary	Indicators	Means of Verification	Important Assumption
Overall Goal			
<ul style="list-style-type: none"> For purpose of improving comprehensive environmental management, Plan-Do-Check-Action (PDCA) cycle of Regional Environmental Quality Management Plan (EQMP) of REO8, such as participatory planning, implementation, monitoring, evaluation, revising plan, is continuously executed through linkages among central, regional, provincial, and local levels under REO8's jurisdiction. Environmental management in Thailand is improved by disseminating the experiences of REO8 and 5 provinces. 	<ul style="list-style-type: none"> Reflecting the evaluation results of the Regional EQMP (2012-2016), the Regional EQMP (2017-2021) is developed and being implemented. Improved and increased environmental activities initiated by REO8 and LAs. The outcome of the Regional EQMP of REO8 is shared among other regions. Plan-Do-Check-Action (PDCA) cycle of Regional EQMP in other REOs is functioned. 	<ul style="list-style-type: none"> Interviews and/or questionnaires to other REOs. Monitoring and evaluation report of the Regional EQMP (2012-2016) of REO8. The Regional EQMP (2017-2021) of REO8 and others. 	<p>National EQMP remains active.</p> <p>Other REOs are willing to cooperate in implementation of capacity development activities.</p>
Project Purpose			
REO8 and 5 PONREs' capacity on planning, implementation, monitoring of EQMP is developed.	<ul style="list-style-type: none"> Through implementing pilot projects, problems at project site are improved. 	<ul style="list-style-type: none"> Monitoring Reports of Regional/Provincial EQMP Web site 	

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		<ul style="list-style-type: none"> • Process of planning of Regional/Provincial EQMP is clarified, and minutes of discussions during the planning process are developed. • Progress and results of Regional EQMP of REO8 and Provincial EQMP are published to the public. • Quality of technical services which REO8 and PONREs provided to LAs and the public is improved, such as water quality improvement or solid waste management. 	<ul style="list-style-type: none"> • Interviews • Questionnaires 	
Outputs				
1.	Regional EQMP of REO8, which includes its action plan, implementation, monitoring and evaluation method, is developed.	<ul style="list-style-type: none"> • Regional EQMP of REO8 is developed, reflecting concerns of PONREs, LAs and the public. • Clear demarcation of roles and responsibilities for planning, implementing, monitoring and evaluation among stakeholders is identified. • Implementation structure with its mechanism is developed. • Improved indicators in Regional EQMP of REO8 are aligned with National EQMP. 	<ul style="list-style-type: none"> • Progress Report, Monitoring Report of Regional EQMP (2012-2016) of REO8. 	<p>ONEP, REO8, PONREs, and LAs allocate resources for activities identified in the projects</p> <p>Relevant government agencies assist REO8 and PONREs upon requests by providing technical knowledge and data.</p>

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2.	Public awareness on environmental management issues is promoted, utilizing simplified guidelines developed by involving stakeholders, based on Regional EQMP of REO8.	<ul style="list-style-type: none"> • Simplified guidelines are developed. • Quality and quantity of information provided to LAs and the public by REO8 and PONREs are improved. • Environmental management activities by community are increased. 	<ul style="list-style-type: none"> • Environmental guidelines prepared by stakeholders. • Records of public consultation • Public awareness impact survey 	
3.	Through implementation of pilot projects, recommendation and lessons learned are identified and shared, for promotion of Regional/Provincial EQMP.	<ul style="list-style-type: none"> • Recommendations and lessons learned of pilot projects are known to LAs and the public. • Ways to access budgetary resources are known to LAs. 	<ul style="list-style-type: none"> • Monitoring and evaluation reports of pilot projects • Interviews and questionnaires to LAs involved in pilot project activities 	
Activities		Inputs from Japan	Inputs from Thailand	
1-1	By reviewing current regional state of environmental management issues of REO8, identify issues in detail selectively (hot spots, wetland management, water quality management, coastal conservation, community-based solid waste management, etc.) with appropriate indicators	<Experts> 1) Team Leader / Environmental Management Planning 2) Organizational Capacity Development / Participatory Planning 3) Area-based Planning (GIS) 4) Water Quality 5) Environment Education (GIS) 6) Community-Based Solid Waste Management	<Counterpart Personnel> 1) Project Director 2) Co-Project Manager 3) Co-Project Manager 4) Relevant counterparts from both central and local governments	
1-2	Based on 1-1, visualizing environmental management issues in the area under REO8's jurisdiction by utilizing GIS, identify priority issues to be addressed within the Project			
1-3	Conduct capacity assessment for REO8 and 5 PONREs			
1-4	Conduct stakeholder analysis regarding environmental management in the Project site			

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*1-5	Based on 1-3 and 1-4, clarify roles and responsibilities among stakeholders, and identify resource organizations to provide technical inputs	7) Other experts for implementing the Project activities, if necessary				
*1-6	Develop implementation structure of Regional EQMP of REO8 and Provincial EQMP					
1-7	Develop method for participatory planning and monitoring of Regional EQMP of REO8 and Provincial EQMP, involving various key stakeholders including LAs and the public				<Training> Trainings in Japan (Once a year for both director level and officer level); Study trip in the third country (if necessary)	<Office space and facilities> The Project office space and facilities in REO8 and ONEP
1-8	Develop and review Regional EQMP (2012-2016) of REO8				<Machinery and equipment >	<Operational cost> Necessary expenses for local trainings, meetings and operation cost for activities identified in the Project.
1-9	Review Provincial EQMP (2012-2016) according to Regional EQMP of REO8				Minimum equipment related to GIS to be decided.	
*1-10	Share the progress of Regional EQMP of REO8 and Provincial EQMP to key stakeholders and the public				Office equipment, training equipment and others as needed.	
1-11	Conduct trainings / seminars on how to overcome environmental management problems along with EQMP, with assistance of resource organizations identified in 1-5					
2-1	Identify major environmental management issues for raising awareness of the public according to Regional EQMP of REO8					
*2-2	Identify effective and available tools and resources for raising public awareness (GIS, media campaign, web site, newsletter, seminars, etc.)					
2-3	Develop simplified guidelines for raising public awareness to be utilized by LAs					

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*2-4	Conduct public awareness raising as pilot project described in Output 3, based on the measures identified in 2-1, utilizing available tools and resources identified in 2-2			
*3-1	Select regionally cross-cutting environmental management issues, such as wetland conservation, water quality management, hot spots management, based on activities under Output 1			
*3-2	Develop work plans, including financial plans, for pilot projects together with LAs, local organizations (e.g. Protected Area Committee), the public and resource organizations identified in 1-5			
3-3	Implement pilot projects			
3-4	Identify required capacity for implementation of pilot projects, and identify current capacity of stakeholders			C/Ps' work will not be disturbed due to large scale natural disaster or political reason.
3-5	Develop the capacity identified in 3-4 through pilot projects			
*3-6	Conduct workshops to share progress of pilot projects			
3-7	Evaluate pilot projects and share recommendations and lessons learned to the public			

*Thai side shall play a major role on activities 1.5, 1.6, 1.10 (activities regarding development of implement structure in Thai side), 2.2, 2.4 (activities regarding awareness raising), and 3.1, 3.2, 3.6 (activities regarding planning of pilot projects) with support by JICA experts for the purpose of securing more sustainability of the Project.

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Appendix 1
PO Ver. 1 August 2012

Annex II

TENTATIVE PLAN OF OPERATION (PO)

	2012			2013									2014									2015																		
	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9				
Monitoring and Evaluation																																								
Training Overseas																																								
Output 1: Regional EQMP of REOB, which includes its action plan, implementation, monitoring and evaluation method, is developed.																																								
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Appendix 1

Annex III List of JICA Experts

Experts in the field of:

- (1) Team Leader / Environment Management Planning
- (2) Organizational Capacity Development / Participatory Planning
- (3) Area-based Planning (GIS)
- (4) Water Quality
- (5) Environment Education (GIS)
- (6) Community-Based Solid Waste Management
- (7) Other experts for implementing the Project activities, if necessary


 K. Chanyama

Appendix 1



Annex IV List of Machinery and Equipment

Necessary equipment for GIS will be identified after consultation with Thai C/Ps and JICA Expert Team within 6 months of the commencement of the Project in order to be provided within first year of the Project.

Other than above, equipment, machinery, instruments, tools and materials which are necessary for the Project will be provided during the Project, if any.

Note:

- 1) The above-mentioned equipment is limited to those which are indispensable for the transfer of technology by the JICA Experts.
- 2) Content, specifications, and quantity of the equipment will be decided through mutual consultations.

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Appendix 1

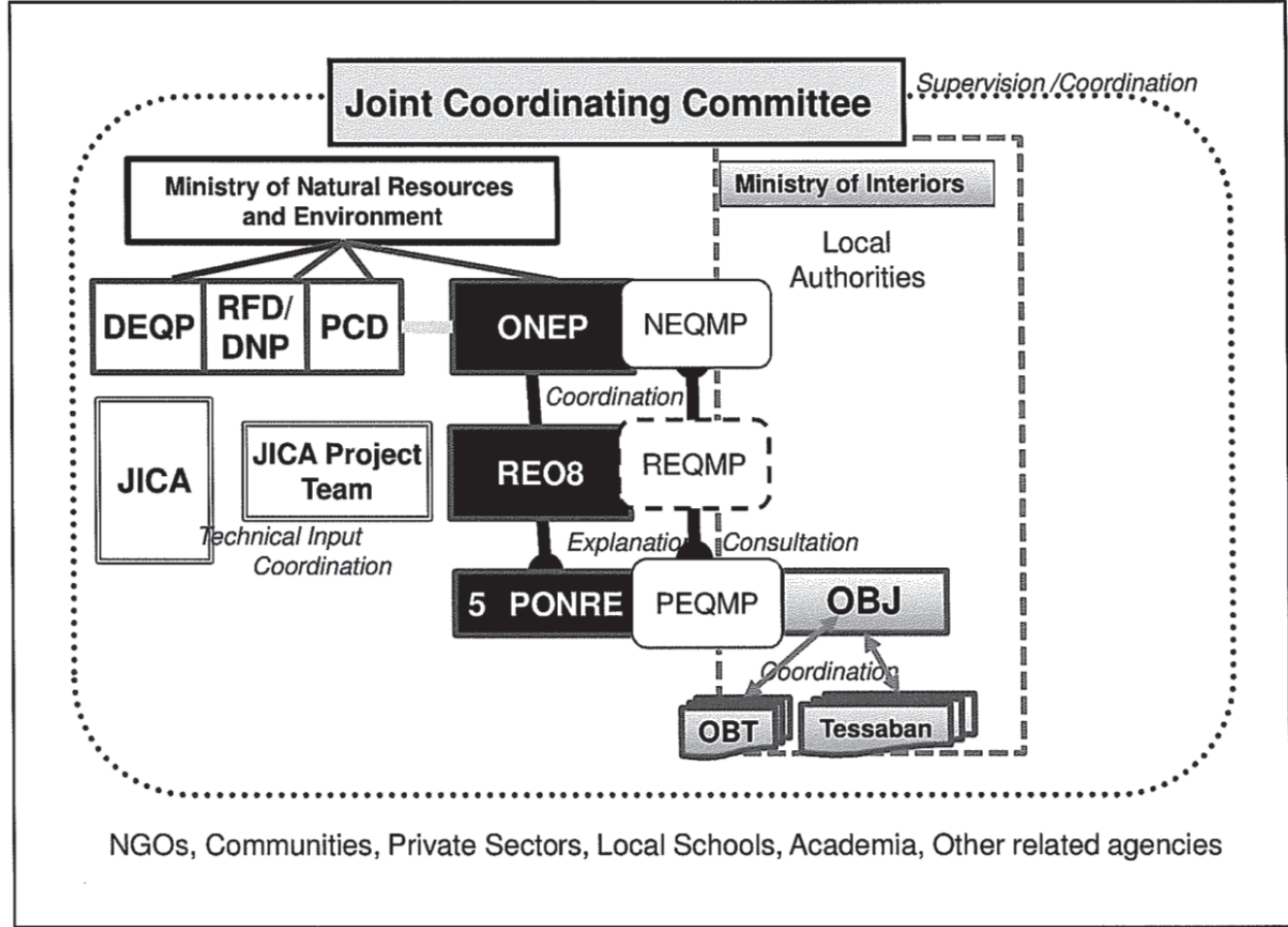
Annex V List of Thai Counterpart Personnel

No	Project Position	Name	Organization
1.	Project Director	Ms. Usa Kiatchaipipat	Director, Office of National Environment Board, ONEP
2.	Co-Project Manager	Ms. Krisana Choeypun	Director, REO8
3.	Co-Project Manager	Mr. Prasert Sirinapaporn	Director, Policy and Planning Section, Office of National Environment Board, ONEP
4.	Project Assistant	Mr. Piya Prohmsatit	Environmentalist, REO8
5.	Project Assistant	Ms. Nareerat Panmanee	Environmentalist, Office of National Environmental Board, ONEP
6.	C/P	Mr. Teerapong Boontonglaon	Environmentalist, REO8
7.	C/P	Ms. Yaowanart Plaimart	Environmentalist, REO8
8.	C/P	Mr. Teerapong Laopongpith	Environmentalist, Office of National Environmental Board, ONEP

In the event of transfer / posting or retirement of counterpart personnel, his/her successor will be designated by respective organizations immediately, except (1) Director of Office of National Environment Board, ONEP as Project Director; and (2) Director of REO8 as Co-Project Manager should be automatically designated by his/her position.

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Project Organization Chart



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Appendix 1

Annex VII List of Members of Joint Coordinating Committee

1. FUNCTION

The Joint Coordinating Committee (hereinafter referred to as “JCC”), composed of members listed in 2 below, will meet at least once a year and whenever the necessity arises. The main functions of JCC shall be as follows:

- (1) To formulate the annual operational work plan of the Project based on the tentative schedule of implementation within the framework of the Record of Discussions (R/D);
- (2) To review the overall progress and achievements of the Project;
- (3) To examine major issues arising from or in connection with the Project;
- (4) To work out the modification of activities depending on the necessity;
- (5) To endure smooth implementation of the Project and to secure ministerial coordination, guidance and supervision; and
- (6) To draw expertise from other ministries/departments/organizations.

2. COMMITTEE COMPOSITION

(1) Chairperson:

Deputy Permanent Secretary, MNRE

(2) Committee Members:

<Thai Side>

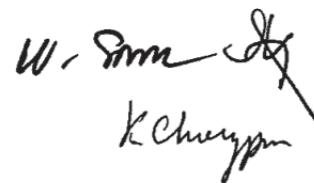
- Representative(s) of Office of Natural Resources and Environmental Policy and Planning (ONEP), MNRE
- Representative(s) of the Eighth Regional Environmental Office (REO8), MNRE
- Representative(s) of the Provincial Offices of Natural Resources and Environment (PONREs) under jurisdiction of REO8
- Representative(s) of Office of Permanent Secretary (OPS), MNRE
- Representative(s) of Pollution Control Department (PCD), MNRE
- Representative(s) of Department of Environmental Quality Promotion (DEQP), MNRE
- Representative(s) of Royal Forest Department (RFD) and Department of National Park, Wildlife and Plant Conservation (DNP), MNRE
- Representative(s) of Thailand International Development Cooperation Agency (TICA), Ministry of Foreign Affairs

<Japanese Side>

- JICA Experts to be dispatched by JICA
- Representative(s) of JICA Thailand Office
- Other personnel concerned to be decided and/or dispatched by JICA, if necessary

<Observer>

- Official(s) of the Embassy of Japan in Thailand
- Representative(s) of the Regional Environmental Offices 1-16, MNRE
- Other official(s) of appointed by the Project Leader may attend the Committee meetings as observer(s)



W. Som
K. Chuyppan



Appendix 2

MAIN POINTS DISCUSSED

1. Identification of Model Regional Environment Office (REO)
REO8 is selected as model REO due to following reasons; 1) one of the provinces (Samut Songkhram) in REO8 was involved in the previously conducted development study on “Supporting System for Local Administrations on Natural Resources and Environmental Management in the Kingdom of Thailand”, 2) REO8 has variety of environmental management issues both green and brown issues, such as Samut Songkhran province has wetland registered as Ramsar site, and Phetchaburi, Prachuap Khiri Khan have environment protected areas, and 3) REO8 has strong willingness to participate in further strengthening of its capacity for environmental management; therefore, REO8 was selected as the model REO for this Project.
2. Outputs of the Project
 - (1) Development of Regional EQMP as Output 1
Regional EQMP (2012-2016) needs to be immediately formulated at the early stage of the Project, and then proceed to revision of Provincial EQMP (5 Provinces) according to Regional EQMP and pilot projects. Regional EQMP should include the method of participatory planning, monitoring and evaluation as well.
 - (2) Public awareness raising as Output 2
In order to promote environmental management activities in local level, involvement of community is essential. Utilizing effective tools such as GIS, mass media, simplified guidelines, and public awareness shall be carried out.
 - (3) Strengthening linkages among stakeholders, and extracting practical lessons through pilot projects as Output 3
Lessons learnt through conducting pilot projects are clearly extracted and shared among stakeholders in order to strengthen linkages among stakeholders, to clarify their roles and responsibilities, and to identify required capacity of stakeholder, especially REO8 and PONREs. Additionally, this would support the implementation of environmental management activities on the ground.
3. Target Group of the Project
The target group of the Project is ONEP, REO8, and the five (5) PONREs under REO8’s jurisdiction (Ratchaburi, Kanchanaburi, Samut Songkhram, Petchaburi, and Prachuab Kiri Khan)
4. REO8’s Role for EQMP
REO8 is expected to formulate Regional EQMP according to the National EQMP and to provide technical advice to PONREs and LAs.
5. Identification of Issues for Pilot Projects
Thai side strongly requested all five (5) provinces covered by REO8 be benefitted in the Project, especially for implementation of pilot project activities. Both sides agreed that preliminary criteria for selection of pilot projects are as follows:

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K. Cheryan

- 1) Project should be initiated by REO8 / Provinces / LAs with the submission of (simple) proposal format by themselves that includes substantial data requested by ONEP and REO8;
 - 2) Project in Provincial EQMP will be given higher priorities;
 - 3) Project proponent should assign adequate number of permanent staff who is responsible for management of the pilot project activities;
 - 4) The sectors for the pilot projects should be related to the following sectors: water quality management, wetland management, solid waste management, and climate change. The sectors will be decided a year after the commencement of the Project; and
 - 5) For the project management purpose, at most two (2) pilot projects shall be decided and implemented during the Project and necessary to be benefitted to all five (5) provinces.
6. Wetland Management
- Both sides acknowledged the importance of wetland management, and identified it as one of the regional priorities to be addressed in the Project. Improvement of wetland management could be a part of pilot project activities with active collaboration among various stakeholders.
7. Utilization of Local Consultants
- Both sides recognized that Thailand has sufficient skills and technology, which cover broad areas. Therefore, utilization of local consultants in Thailand is recommended as applicable.
8. GIS Related Component
- Both sides agreed to maximize the utilization of current GIS of REO8, and the importance of data sharing among relevant agencies, necessity of improvement of hardware and software if necessary.
9. Dissemination of the Outputs to Other REOs
- Both sides agreed that the outputs of the Project shall be properly disseminated to other REOs nationwide, by means of knowledge sharing, conducting seminars and distributing materials and guidelines produced during the implementation of the Project. REO8 and ONEP will conduct such dissemination activities, under the assistance of JICA experts, as necessary.
10. Linkage with Other Departments in MNRE
- (1) Coordination inside MNRE
- Both sides acknowledged the advantage of involving other departments such as Department of Environment Quality Promotion (DEQP), Royal Forest Department (RFD), Department of National Parks, Wildlife and Plant Conservation (DNP), Pollution Control Department (PCD) and Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) in the Project. Those departments could provide information and technical support to strengthen the capacity of REO and PONRE by giving lectures during the Project, based on official requests by ONEP and REO. Coordination among departments under MNRE will be done initiated by ONEP. JCC can be one of the appropriate mechanisms to realize smooth coordination officially followed by communication in detail. Depending on subject



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K. Cheryon



matters, appropriate actions for collaboration shall be carried out, e.g. the Environmental Research and Training Center (ERTC), DEQP, for providing capacity building trainings, TGO for climate change related issues, etc.

(2) Coordination among Regional Organizations

Coordination among regional organizations under MNRE will be initiated by REO8. Proper coordination mechanism shall be developed during the Project.

11. Budgetary Arrangements after the Project

The proper way to access various budgetary resources for natural resources and environmental management such as (1) budget from the Decentralization Committee, (2) Environmental Fund from MNRE, (3) budget from Provincial Government, (4) budget from LA, and etc., shall be exercised practically during the Project. ONEP requested that further understanding of Payments for Ecosystem Services (PES) to be realized through this Project by training program in Japan.

Appendix 3

**MINUTES OF MEETINGS ON THE PROJECT FOR STRENGTHENING
ENVIRONMENTAL MANAGEMENT AND LINKAGES AMONG CENTRAL,
REGIONAL, PROVINCIAL AND LOCAL LEVELS**

(3-1) January 31st, 2011

(3-2) December 21st, 2011

(3-3) May 16th, 2012

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K. Chanyom

1.2. 合同調整会議

1.2.1. MM of 1st JCC (Draft)

Minutes of JCC Meeting

The Project of Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels

1st/2013

Wednesday 10 April, 2013 – 9.30 12.00

At conference room 401, ONEP Building

Attended Committee list

1. Mr. Pongboon Pongtong Chairman
Deputy Secretary General of ONEP
2. Mr. Yasumitsu Kinoshita Committee
Senior Representative
JICA Thailand
3. Mrs.Somsuan How Committee
Development Cooperation Officer
Representative of TICA
4. Miss Pornphimon Warathorn Committee
Environmentalist, Senior Professional Level
Representative of DEQP
5. Mr.Phet Ploychareun Committee

- Forestry Technical Officer, Senior Professional Level
- Representative of National Park Wildlife
and Plant conservation Department
6. Mr.Athit Kuanha Committee
Plan and Policy Analyst, Professional Level
Representative of Department of Marine and Coastal Resources
7. Mrs.sophit Phiromlert Committee
Policy and Planning Specialist
Representative of Department of Ground Water Resources
8. Miss Krisana Cheypan Committee
Director of REO8
Representative of REO8
9. Mr.Chaiphadoong Phromsawat Committee
Director of Samutsongkram PONRE
Representative of Samutsongkram PONRE
10. Mr.Sawong Soodprasert Committee
Director of Ratchaburi PONRE
Representative of Ratchaburi PONR
11. Mr.Niphon Chaisalee Committee
Head of Environmental Division,
Representative of Phechaburi PONRE
12. Mrs.Jirat Pranprasit Committee

Head of Environmental Division,

Representative of Prachuap Khiri Khan PONRE

13. Miss Nipharat Tangsooksan

Committee

Environmentalist, Practitioner Level,

Representative of Kanchanaburi PONRE

14. Mrs. Usa Kietchaipiphat

Committee/Secretary

Director of Office of National Environment Board,

ONEP

15. Miss Nareerat Phanmanee

Committee/Secretary Assistant

Environmentalist, Senior Professional Level,

Head of Measurement Analysis and International Cooperation Section

ONEP

16. Mr. Teerapong Laophongphit

Committee/Secretary Assistant

Environmentalist, Practitioner Level,

ONEP

Absent committee (occupied with governmental duty)

1. Mrs. Nanthiwa Phithayaniyom

Committee

Environmentalist, Professional Level

Representative of PCD

2. Representative of Department of Local Administration

Committee

3. Representative of Royal forest Department

Committee

4. Representative of Department of Mineral Resources Committee
5. Representative of Department of Water Resources Committee
6. Representative of OPS
Committee

Project consultants

1. Dr. Akanori Sato JICA Expert team / Leader
2. Ms. Fumio Sugawara JICA Expert team
3. Mr. Hiroki Haraga JICA Expert team
4. Ms. Panarueporn Chanpen JICA Expert team
5. Ms. Anchalee Rodloytuk Researcher assistant
6. Miss Orathai Pianphukao Interpreter

Participants list

1. Mr. Yukihiro Kaneko Embassy of Japan in Thailand
2. Mr. Fumiya Misaka JICA Thailand
3. Ms. Jamaree Yamklinfung JICA Thailand
4. Miss Duangkamol Witthayapitakwong TICA
5. Mr. Manop Yanpisitkul Samutsongkram PONRE
6. Mr. Piya Prohmsathit REO8
7. Mrs. Yaowanart Plaimart REO8
8. Miss Mathuros Thongburi DEQP
9. Miss Pajaree Sanguanwong DEQP

- | | |
|---------------------------------------|------|
| 10. Miss Chidanan Boonsit | ONEP |
| 11. Miss Pimonpan Hanseuk | ONEP |
| 12. Miss Worrachina Na Lampang | ONEP |
| 13. Miss Duangkamon Witthayapitakwong | ONEP |

The meeting started at 9.30 A.M.

Agenda No.1 Topic presented by chairman

The chairman welcomed JICA Thailand, Representative of Embassy of Japan in Thailand, Director of REO8, Representative of PONREs and participants from other organizations to attend the JCC meeting for the project of Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels. The purpose of the project is to implement the EQMP 2012-2016. JICA Expert team expressed the important of the enhancement of environmental management and Personnel capacity at National, Regional, and Local Levels.

Resolution : Acknowledged

Agenda 2 For your information

2.1 Introduction of the project of Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels

Mrs. Usa Kiatchaipipat, the Committee and Secretary of JCC informed

the rationale of the project; The Ministry of Natural Resources and Environment, and Office of Natural Resources and environmental Policy and Planning are supported the technical cooperation from the Government of Japan through the Japan International Cooperation Agency for the Project of among Central, Strengthening Environmental Management and Linkages and Local Levels Regional, Provincial a. The Project period is 3 years, and will be implemented in the area of REO8 .ONEP is designated as the Project focal point. The purpose of the project is to support technical knowledge and capacity enhancement of Natural Resources and Environmental management in REO8 jurisdiction, as a result, the capacity of REO8, PONREs and LAs will be enhanced .The project will be implemented through the cooperation of JICA Expert Team, from Oriental Consultants Co., LTD ,Counterpart s)the representative of ONEP, REO8 and 5 PONREs; Kanchanaburi, Ratchaburi, Samutsongkram, petchburi, and Prachuap Khirikhan). The representative of Policy and Strategic Bureau under OPS will coordinate and support the data and activities of the project. The office of JICA Expert Team is located in the Regional Environment office 8th .The Joint Coordination Committee is designated by ONEP to govern and supervise the implementation of the project.

Resolution : Acknowledged

2.2 Order of the Appointment of JCC by Office of Natural Resources and Environmental Policy and Planning No.140/2013 Feb 20, 2013 for JCC for the project of Strengthening Central, Ce Management and Linkages among Environmental .Regional, Provincial and Local Levels

Ms. Usa Kiatchaiphat, the committee and secretary of JCC, presented that a Joint Coordination Committee (JCC) composed of the representative of REO8, Representative of 5 PONREs, Representative of Central organizations, and chaired by Secretary-General of ONEP. The JCC is appointed by ONEP's Order no.140/2013 Feb. 20 2013, to govern the management of the project. The duties of JCC are as below:

1. Supervise the project implementation.
2. Provide the guidance and suggestions for the project implementation.
3. Support needed information and data for the project.

Resolution: Acknowledged

Agenda No.3 Issues submitted for consideration

3.1 Inception Report of the project forStrengthening Environmental .Management and Linkages among Central, Regional, Provincial and Local Levels

Ms. Usa asked Ms. Nareerat Phanmanee to clarify and summarize the Draft inception Report to the participants .Ms. Nareerat informed that Inception Report (Draft) is the project framework proposed by JICA Expert team. The project will support the linkage of Natural Resources and Environmental management plan at national level, Regional level, Provincial level, and Local authority level .The pilot projects will be implemented through the project area as the model for other REOs .The Draft Inception Report composed of main chapters as below:

Chapter 1 Introduction

Chapter 2 Project Approach and Methodology

Chapter 3 Project Tasks and Activities

Chapter 4 Project implementation Arrangement

Chapter 5 Project Staffing and work Schedule

Chapter 6 Report Submission Schedule

The detail of Inception Report is summarized by Miss Nareerat as below:

Overall goal

-For purpose of improving comprehensive environmental management, implementing mechanism linkages among central, regional, provincial, and LAs is developed with Plan-Do-Check-Action (PDCA) cycle, participatory planning, implementation, monitoring, evaluation, revising of Regional EQMP in REO8's jurisdiction

-Environmental management in Thailand is improved by disseminating the experiences to other REOs.

Project Purpose

Capacity for environmental management of REO8 and five PONREs on planning, implementation, monitoring/evaluation of Regional EQMP is developed through process of REO8 Regional EQMP and pilot project implementation.

3 Outputs of the project are as below:

Output 1 Model for Environmental management mechanism for REO8 Regional EQMP is developed through planning process of REO8 Regional EQMP.

Output 2 Public awareness on environmental management issues is promoted utilizing simplified guidelines based on Regional EQMP of REO8.

Output 3 Recommendation and lessons learned for promotion of R&P EQMP are identified and shared through pilot project implementation.

Project Approaches

Technical Approach

1. Establishment of a Workable Regional Environmental Management through the Development of a Model for Environmental Management Mechanism using Participatory Planning Process in Formulating Regional EQMP.
2. Ensuring Access to Various Financial Sources for a Sustainable Environmental Management.
3. Balanced Technical Capacity Development by Stepwise Environmental Management Tools Utilization.
4. Emphasis on Participatory Environmental Management with strong Public Awareness Raising Campaigns.
5. Emphasis on Capacity Development based on Roles designated by Ministerial Order.

Operational approach

1. Emphasis on Communication between Thai Side and the JICA Expert Team in order to Foster Initiative by Counterpart Agencies.
2. Far-Sighted Activities for the Next Term of Regional EQMP (2017-2021).

- 3 .Following up the Capacity Assessment in the Project Period.
- 4 .Project Management based on Project Design Matrix (PDM) and Plan of Operation (PO).
5. Target-oriented Public Relations.

Work Schedule

Output 1 is divided to 2 phases as below:

Phase I (Jan. 2013 – Jul. 2013) Formulation of Regional EQMP

Phase II (Sep.2013 – Jan. 2016) Implementation, Evaluation and Revision of Regional EQMP.

Output 2 is divided to 2 phase as below:

Phase I (Sep. 2013 – Dec. 2013) Preparation of public awareness campaign.

Phase II (Jan.2014– Jan.2016) Implementation of public awareness campaign in pilot project site(s).

Output 3 is divided to 2 phase as below:

Phase I (Jul.2013 – Oct.2013 (The preparation of Pilot Project plan.

Phase II (Nov.2013 –Jan.2016) The Pilot Projects will be implemented according to Pilot project plan.

Training programs and assessment for the capacity development will be conducted continuously throughout the project period (Jan 2013 – Jan 2016)

The Draft Inception Report is presented for your consideration, and it will be

used as the Project framework by JICA Expert team.

Comments for the Draft Inception Report

Chapter1-2

1. The context related to Natural Resources, Urban environment and amount of Water should be more added in the Inception Report, especially the issue of Water Resources, since REO8 jurisdiction is the significant National water resources.

2. The budget sources for project's activities should be clarified, especially budget from related Departments under MONRE since those departments are the main financial sources for lower organizations. The organizations under those departments are provided the budget through the Annual Budget.

3. The Biological Indicator should be focused and emphasized, since it's the significant tools for output 2; the simplified guidelines for Environmental management for Pollution control standard such as Water quality, Air quality.

4. The Capacity of GIS utilization should be enhanced.

Chapter 3-6

1. The implementation period of output 2, Public awareness in Pilot project site, should be extended for the better evaluation result.

2. Through the formulation of Regional EQMP, environmental problems, occurred in particular area, should be analyzed and clarified by each. Moreover, the guidance and problem resolution should be shown and demonstrated. The major issues are the dissemination of lead in Clity canal, Kanchanaburi province, Landscape problem in Huahin,

Prachup Khirikhan province, the management of Ramzar site in Samutsongkram province, and the management of protected and pollution control area.

Comments and other questions

1. The roles and functions of JCC were asked in the meeting, the secretary informed that the JCC will support necessary data for the project and JCC is the agency who review and consider the Regional EQMP for the reference and guideline of 4-Year plan and budget allocation.
2. JICA Expert Team should analyze and establish the mechanisms for the linkages among Regional EQMP, other Regional Plans and Provincial Cluster Plan including Budget allocation, in order to establish the sustainable Regional EQMP implementation.
3. Environmental organizations under MONRE should support Private sector to involve and participate the implementation of Regional EQMP.
4. JICA Expert Team has to consider the proposal for follow up activities after the termination of the project, including approaches and source of financial aid, or implementation of the plans under Regional EQMP.
5. The participants asked about financial sources for the project activities such as the budget from Environmental Fund. The secretary of JCC informed that this issue will be discussed again among REO8, and JICA Expert Team.

6. The representative of related organizations such as Department of Marine and Coastal Resources and Department of Ground Water Resources will support the project activities.

Meeting opinion :The Draft Inception Report for the project of Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels was agreed and the revised based on the comments from JCC meeting. The finalized version will be used as project framework.

Agenda.No 4 Others

Project tasks achievement and next activities (Phase I) were reported by JICA Expert Team.

Dr. Akinori Sato, the leader of JICA Expert Team, presented the progress of project tasks from Jan.2013 -Mar.2013, and the initial findings of Capacity Assessment as below:

1. The preparation of the Draft Inception Report.
2. Explanation and discussion of the Draft Inception Report with ONEP and REO8
3. Capacity Assessment of ONEP, REO8 and 5 PONREs. The findings of CA will be analyzed for the establishment of Capacity enhancement and Project personnel development. After that Dr. Akanori Sato presented the next step of project activities (Mar.-Dec. 2013) as below:

Output 1

1. Study the environmental conditions such as Social and economic condition in REO8 jurisdiction and review environmental plans such as Regional EQMP 2007 – 2011, and Provincial EQMP in 5PONREs.
2. Environmental problem analysis with stakeholder
3. Technical support in the formulation of the Regional EQMP
4. Development of a method for participatory planning and monitoring of Regional and Provincial EQMP.

Output 3

1. The preparation of Pilot Project is as below:
 - 1.1 Preparation of the criteria for the selection of pilot projects.
 - 1.2 Preparation of pilot project plan
 - 1.3 Establishment of pilot project implementation mechanism

Comments and suggestions

1. The chairman pointed that the Personnel Capacity development of PONREs should be emphasized because it is the main factor of project achievement. PONREs should be involved in the process of Pilot Projects selection, since PONREs have the familiarity and experience of the environmental issues occurred in the target area.

2. JICA Expert Team is suggested to conduct the Capacity Assessment at LAs level since LAs plays important roles for Natural Resources and Environmental management. The National Environment Board Division agreed that LAs capacity should be assessed, especially in 5 PONREs under the REO8 jurisdiction.

3. The Draft Inception Report is asked for the revision in page 14 *“The JICA Expert Team also found out that most of the officers from REO8 and PONRE acquired general knowledge of environmental management from seminars and training programs provided, but they do not know how to make use of this knowledge for their routine work”* It was mentioned that the participants sometime are represented by the government officer to attend the seminar, somehow those participant could not do activities effectively. The participants were not the target-group; as a result the finding might be inaccurate.

The meeting ended at 12.00

Drafted by

Mr.Teerapong Laopongpith

Environmentalist, Practitioner Level

Edited by

Ms. Nareerat Panmanee

Environmentalist, Senior Professional Level

Director of Measure Analysis Section

Approved by

Mrs.Usa Kiatchaipiphat


Director of National Environment Board Division

1.2.2. MM of 2nd JCC

MINUTES OF MEETING
ON
2nd JOINT COORDINATION COMMITTEE

THE PROJECT
FOR
STRENGTHENING ENVIRONMENTAL MANAGEMENT AND LINKAGES
AMONG CENTRAL, REGIONAL, PROVINCIAL AND LOCAL LEVELS
IN THE KINGDOM OF THAILAND

Bangkok, 24th September 2014



Mrs. Usa KIATCHAIPHIPAT
Director of National Environment Board, ONEP
Ministry of Natural Resources and Environment
Kingdom of Thailand



Mr. Toshiaki KUDO
Team Leader of JICA Expert Team
Japan



Mr. Piya PROHMSATIT
Head of Environmental Planning Section, REO 8
Ministry of Natural Resources and Environment
Kingdom of Thailand



Mr. Fumiya MISAKA
Representative,
Japan International Cooperation Agency
Thailand

Based on the official agreement made between the Government of Thailand and Japan International Cooperation Agency (JICA), JICA dispatched the Detailed Planning Survey Team on the Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels (hereinafter referred to as “the Project”) to Thailand in January 2011, December 2011, and May 2012, and discussed the details of the Project. As a result, the Record of Discussions (R/D) was agreed and signed by both parties on 28th September 2012, and the Technical Cooperation Project (hereinafter referred to as “the Project”) was launched in February 2013.

Phase 1 of the Project was implemented during February 2013 to October 2013. The JICA Expert Team compiled the results of Phase 1 and the plan for Phase 2 into a Draft Project Implementation Plan and submitted to the Thai side in May 2014. (Final version of Project Implantation Plan was submitted to the Thai side in July 2014.)

Accordingly, series of kick-off meetings for the Phase 2 were successfully organized and the attendants agreed important points for commencement of Phase 2 on 30th May 2014 at the Pullman Bangkok Hotel G.

Based on the conclusions made on 30th May 2014, Thai side and Japanese side worked and cooperated on the project implementation in the past four months. The 2nd Joint Coordination Committee (hereinafter referred to as “JCC”) was held at Novotel Bangkok Platinum to report on the progress of the project implementation on 24th September 2014.

The following are the highlights of the points discussed during the meeting:

1. Project Progress Report

The attendants recognized the progress of the project and agreed to cooperate continuously in the implementation of future activities of the project. (See Appendix 1 for attendants list and Appendix 2 for presentation material of Project Progress Report)

2. Draft final R-EQMP 2013-2016

The draft final R-EQMP 2013-2016 was presented. Both sides agreed that the draft final R-EQMP should be revised based on the discussion and final copy should be produced and disseminated.

General comments and clarifications were raised by the attendants and summarized below. Appendix 3 contains the presentation material on the draft final R-EQMP.

1) General Comments

- The attendants were concerned about the implementability of the R-EQMP in terms of intergovernmental mechanism, tools, guidelines and budget. Hence, translating the R-EQMP into action will be a challenge. Also, analysis of existing tools and techniques shall be incorporated in the R-EQMP Implementation Plan.

- The attendants also expressed concerned about the strong relationship of R-EQMP and P-EQMP, particularly on the projects and programmes. Priority issues in each province should be determined according to the issues stated in R-EQMP.

The attendants shared that issues that are included in P-EQMP and are considered to be of high priority will have a prospect to receive cooperation and budget support at the provincial levels (Provincial Development Plan and Provincial Cluster Development Plan).

2) Comments and Clarifications on the Contents of R-EQMP

- Measures identified in the R-EQMP are responsive to the problems. However, preventive measures should also be considered particularly on carrying capacity of ecosystem (Water bodies, natural resources, etc.).
- The R-EQMP mentioned about landfill (Management Measure 5 in Pollution Control Management Unit). Currently, PCD is developing a Solid Waste Management Road Map focusing on waste reduction and waste to energy. It is recommended to revise management measure 5 to consider the Road Map.
- The attendants mentioned some data and terminology used in R-EQMP should be rechecked, for example the data in Chapter 3, glossary, and sources of information, roles and responsibilities. The attendants also requested to reconsider updating the data such as wetland data in Prachuap Khiri Khan, and environmental protected areas.
- Environmental Knowledge Centers planned to be set up in each province need to be carefully studied. Workable knowledge centers require investment not only for building but also for maintenance of the facilities and sustainability of the centers operations (in terms of who operates, how to operate, what information are needed, how to disseminate and update information, among others) to make it interactive.
- Green Network (Management Measure 1, Urban Environmental Management Unit) should be clearly defined.
- The attendants recommended to utilize the Environmental education centers in school that DEQP already established as a node for environmental education.
- The attendants recommended to include methods of environmental education integration in the academy.
- Funding mechanism should also include possible alternative sources, for example the Payment of Ecosystem Services (PES).
- The attendants expressed to reconsider using the existing environmental condition of 2013 to be the target conditions of 2016 because to date there are many positive development already such as policy and technologies.

- The attendants expressed the importance of cultural and historical sites to be included in Urban Environmental Management.
- The attendants recommended to include legal instruments in Pollution Control Management Unit (command and control). Moreover, the attendants proposed that there should be criminal liability for the polluter who cannot comply with related laws.
- The attendants asked for clarification how to monitor and evaluate the R-EQMP.
- The attendants asked whether the implementation of identified environmental management measures in each management unit and project and programmes can ensure the achievement of overall target of R-EQMP.
- The attendants recommended to identify possible funding sources for the thirteen priority projects and programmes.

3. Pilot Project Outlines

The attendants recognized the outline of the pilot projects and agreed to their implementation. The presentation material is attached in Appendix 4.

Appendices:

- Appendix 1 Attendants of the 2nd JCC Meeting
- Appendix 2 Presentation Material on Project's Progress Report
- Appendix 3 Presentation Material on R-EQMP 2013-2016
- Appendix 4 Presentation Materials on Pilot Projects

* * * *

4 of 4

Dr. mfk. Usa. 三阪 2k

1.2.3. MM of 3rd JCC


MINUTES OF MEETING
ON THE
3rd JOINT COORDINATION COMMITTEE

THE PROJECT
FOR
STRENGTHENING ENVIRONMENTAL MANAGEMENT AND LINKAGES
AMONG CENTRAL, REGIONAL, PROVINCIAL AND LOCAL LEVELS
IN THE KINGDOM OF THAILAND

Bangkok, 15th May 2015



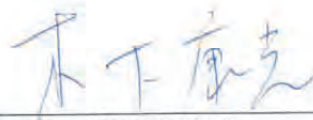
Mr. Pongboon PONGTONG
Deputy Secretary - General, ONEP
Ministry of Natural Resources and Environment
Kingdom of Thailand



Mr. Toshiaki KUDO
Team Leader, JICA Expert Team



Mr. Piya PROHMSATIT
Acting Director, REO8
Ministry of Natural Resources and Environment
Kingdom of Thailand



Mr. Yasumitsu KINOSHITA
Senior Representative
Japan International Cooperation Agency
Thailand Office

Based on the official agreement made between the Government of Thailand and Japan International Cooperation Agency (JICA), JICA dispatched the Detailed Planning Survey Team on the Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels (hereinafter referred to as “the Project”) to Thailand in January 2011, December 2011, and May 2012, and discussed the details of the Project. As a result, the Record of Discussions (R/D) was agreed and signed by both parties on 28th September 2012, and the Technical Cooperation Project (hereinafter referred to as “the Project”) was launched in February 2013.

Phase 1 of the Project was implemented during February 2013 to October 2013. The JICA Expert Team compiled the results of Phase 1 and the plan for Phase 2 into a Draft Project Implementation Plan and submitted to the Thai side in May 2014. (Final version of Project Implementation Plan was submitted to the Thai side in July 2014.)

Accordingly, the kick-off meeting for the Phase 2 was successfully organized and the attendants agreed important points for commencement of Phase 2 on 30th May 2014 at the Pullman Bangkok Hotel G.

Based on the conclusion made on 30th May 2014, Thai side and Japanese side worked and cooperated on the project implementation. The 3rd Joint Coordination Committee was held at Novotel Bangkok Platinum Hotel on 15th May 2015 to report on the progress of the project implementation from October 2014 to April 2015 as well as to discuss next steps to be undertaken. Appendix 1 contains the list of attendants of the 3rd JCC Meeting.

The following are the highlights of the points discussed during the meeting:

1. Progress of Project Implementation and Accomplishment by Outputs

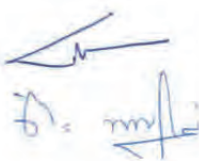
The attendants acknowledged the general progress of the project implementation as well as the accomplishments by outputs (see Appendix 2 for the presentation materials).

2. Summary of the Project Implementation and Next Steps

The project bar chart was presented containing the overall activities of the project with each timeline. The attendants acknowledged these activities and provided comments as to the next steps of the project implementation by outputs as follows:

2.1) Output 1 Model for Environmental Management Mechanism for REO8 R-EQMP is developed through planning process of REO8 R-EQMP

- In the preparation of the manual for participatory planning in the formulation and monitoring of the R-EQMP, comments from REO8, PONRE as well as other related organizations shall be incorporated. The attendants also expressed concerns about participation of other regions as they are also the target users of this manual.



- Environmental profile will be formulated using existing data contained in the R-EQMP. However, attendants expressed concerns about the structure, format and the data use, hence, the attendants encouraged REO8, PONRE and other related organizations to provide inputs, recommendation and updating the data, as possible.

2.2) Output 2 Public Awareness on Environmental issues is promoted utilizing simplified Guideline developed by involving stakeholders based on R-EQMP

The draft public awareness guideline was presented (see Appendix 3 for the presentation material). Both sides agreed that the draft public awareness guideline should consider comments and clarifications as summarized below.

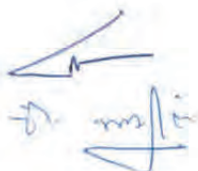
- The draft public awareness guideline should be improved and clearly clarify its direction and adjust the contents to be more simple and practical.
- A formal meeting involving DEQP, REO8, PONRE and other related organizations need to be set up to support the formulation of PA Guideline. Hence, the Chairman expressed that ONEP will organize the meeting.
- As the contents of the 2nd training in Japan include public awareness, the participants of this training are encouraged to learn the experiences and techniques in public awareness during their two-week stay in Japan and provide inputs to the draft public awareness guideline.

2.3) Output 3 Recommendation and lessons learned for promotion of R&P EQMP are identified and shared through pilot project implementation

The Action Plans of the two pilot projects were presented (see Appendix 4 for the presentation materials) and general comments and clarifications were raised as summarized below.

Pilot Project 1: Improvement of the Solid Waste Management System in Tha Yang Sub-District Municipality, Phetchaburi Province

- As Tha Yang SDM lacks technical know-how on solid waste management, the presence of “the Project” has been of great help. Tha Yang SDM will continue to collaborate with “the Project” in the implementation of the activities in the pilot project.
- The Action Plan provides direction as to the process of improving solid waste management and there are activities in the Plan requiring budget. This is one concern that SDM will need to work on, source out resources and acquire budget allocation in order to implement them especially after finishing “the Project”.

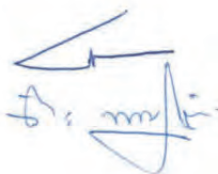


Pilot Project 2: Community-based Environmental Management in Pak Tho Sub-District Municipality, Ratchaburi Province

- As community-based environmental management in Pak Tho SDM, recently the community people are concerned about the environmental problems and well involved in the activity implementation. Pak Tho SDM will continuously implement the activities.
- Districts and schools in the pilot project areas should be integrated in the process of planning and implementation of activities.

The attendants also expressed that the comments raised during Pilot Project Advisory Team Meeting held on 27th April 2015 should be taken into consideration in order to improve pilot project implementation.

Taken as a whole, the attendants expressed to enhance collaborative works with JICA Expert Team and ensure continued support and cooperation in the implementation of future activities of the project.



3 of 4



Appendices:

Appendix 1 Attendants of the 3rd JCC Meeting

Appendix 2 Progress of the Project Implementation and Accomplishment

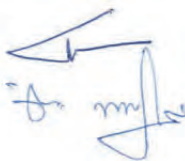
Appendix 3 Draft Public Awareness Guideline

Appendix 4 Pilot Project Action Plans

Pilot Project 1: Tha Yang SDM Solid Waste Management Action Plan

Pilot Project 2: Community Environmental Management Plan of Pak Tho
SDM

* * * *



4 of 4



1.2.4. MM of 4th JCC



Based on the official agreement made between the Government of Thailand and Japan International Cooperation Agency (JICA), JICA dispatched the Detailed Planning Survey Team on the Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels (hereinafter referred to as “the Project”) to Thailand in January 2011, December 2011, and May 2012, and discussed the details of the Project. As a result, the Record of Discussions (R/D) was agreed and signed by both parties on 28th September 2012, and the Technical Cooperation Project (hereinafter referred to as “the Project”) was launched in February 2013.

The Phase 1 of the Project was implemented from February 2013 to October 2013. The JICA Expert Team compiled the results of Phase 1 and the Draft Project Implementation Plan for Phase 2 was discussed and signed on 30th May 2014 at Pullman Bangkok Hotel G. (Final version of Project Implementation Plan was submitted to the Thai side in July 2014.)

The Phase 2 of the Project was implemented from May 2014 to February 2016. As part of the terminal activity of the Project, the 4th Joint Coordination Committee (hereinafter referred to as “JCC”) was held at Amari Watergate Hotel Bangkok on 5th February 2016 to report on the overall results of the Project.

The following are the summary of the discussion:

1. The Draft Project Completion Report was presented to the attendants, and the attendants acknowledged the results of the Project.
2. The attendants also acknowledged the lessons learned, good practices, and recommendations presented by JICA Expert Team as follows:
 - Related to Regional Environmental Quality Management Plan (Regional EQMP)
 - 1) The Eighth Regional Environmental Office (REO8) and Provincial Office of Natural Resources and Environment (PONRE) are highly recommended to utilize various materials produced by the Project which are useful tools in the formulation of the next Regional EQMP
 - 2) REO8 is expected to exert all efforts to effect participatory methods in the formulation and monitoring of Regional EQMP in order to, not only reflect the views of the major stakeholders, but also to create ownership of the plan, so that implementation and monitoring could also be widely supported.
 - 3) In order to utilize the experience of the Project, REO8 shall develop environmentally sensitive zoning as spatial framework for the next Regional EQMP for effective environmental management. Also, regular updating of the environmentally sensitive zoning (ESZ) maps developed by the Project should also be considered.

- Related to Operations of the Pilot Project and Public Awareness
 - 1) In order to enhance sustainability of the Project effect at the pilot project sites, REO8 and PONREs as well as the 2 pilot local authorities (LAs) shall develop a mechanism for continued collaboration and/or expansion of the Project experiences to other LAs.
 - 2) Public Awareness Guideline (PA Guideline) is a practical tool in order to effect public participation in environmental management, and REO8, PONRE and LAs are highly recommended to utilize this tool to enhance public participation and environmental awareness.
 - Related to Translating Policies into Action
 - 1) Office of Natural Resources and Environmental Policy and Planning (ONEP) is recommended to establish measures to respond to policy gaps in relation to Regional EQMP authorization, including budget allocation for planning, implementation and monitoring and evaluation.
 - 2) ONEP is also recommended to develop measures to share significant outputs of the Project to other REOs.
3. The attendants discussed and expressed their opinions and ideas as summarized below:
- The attendants recognized the concept of spatial framework for area-based planning to transform National Environmental Quality Management Plan (National EQMP) to regional, provincial, and local levels. Environmentally sensitive zoning (ESZ) is a useful tool for identifying environmental condition, and can be integrated with land use plan for the formulation of Regional EQMP. It was also expressed that budget allocation, not only for planning, but also for implementation, monitoring and evaluation of the Regional EQMP are important.
 - ONEP should create a mechanism for supporting the implementation of National EQMP through the Regional EQMP at provincial and local levels, as well as budget allocation in accordance with the plans. Moreover, the collaboration with relevant agencies is necessary.
 - The Regional EQMPs have different formats and structure decided by each Regional Environmental Office. To unified and standardized the format of Regional EQMPs, the Regional EQMP of REO8, developed by the Project, can be utilized as guidance.
 - The updated, scientific and accurate data were acknowledged to be very important in the formulation of the Regional EQMP. A mechanism for data management including data collection, updating, sharing and communication among different levels need to be established. The Technical Committee for data management in each environmental sector should be set up. The attendants also raised further support from JICA in this matter.

- Regular meetings among relevant agencies were recognized to be an important mechanism for discussion, consultation, and sharing of information related to environmental management, as experienced by the Project.
- The attendants recognized that the materials developed by the Project (Regional EQMP of REO8, PA guideline, etc.) as well as the lessons learned from the pilot projects can be extended, or replicated gradually in the following manner: (a) within REO8 jurisdiction; (b) within the pilot LAs expanded to other communities; and (c) to other REOs. On the Project technical output (Planning Manual for Regional EQMP, and Environmental Profile) will be modified by concerned organizations to suit the needs of users. Public Awareness on environmental issues in Thailand has to be improved in order to motivate behavioural change. The PA Guideline developed by the Project is a useful tool for promoting public participation in environmental management, and should be disseminated. Thai and Japanese experiences of PA activities incorporated into the guideline give good insights to the users.
- It is recommended that the results of the Project should be reported to Governor of each province in order to understand environmental condition and problems, as well as support PONRE and LAs in environmental management.

Appendices:

Appendix 1 Attendants of the 4th JCC Meeting

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1.3. 2年次キックオフ会議

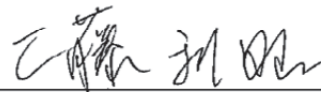
MINUTES OF MEETING
ON
PHASE 2 KICK OFF MEETING

THE PROJECT
FOR
STRENGTHENING ENVIRONMENTAL MANAGEMENT AND LINKAGES
AMONG CENTRAL, REGIONAL, PROVINCIAL AND LOCAL LEVELS
IN THE KINGDOM OF THAILAND

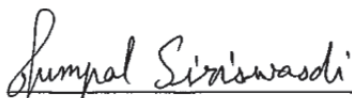
Bangkok, 30th May 2014



Mr. Pongboon Pongtong
Deputy Secretary-General of ONEP,
Ministry of Natural Resources and Environment
Kingdom of Thailand



Mr. Toshiaki KUDO
Team Leader of JICA Expert Team
Japan



Mr. Jumphol Siriswasdi
Director of REO 8
Ministry of Natural Resources and Environment
Kingdom of Thailand



Mr. Noriaki MURASE
Advisor,
Environmental Management Division 1
Global Environment Department
Japan International Cooperation Agency
Japan

Based upon the official agreement made between the Government of Thailand and Japan International Cooperation Agency (JICA), JICA dispatched Japanese Preparatory Study Team to Thailand in December 2010 and December 2011, and discussed the details of a Technical Cooperation Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels in the Kingdom of Thailand. As a result, the Record of Discussions (R/D) was agreed and signed by both parties in 28th September 2012, and the Technical Cooperation Project (hereinafter referred to as “the Project”) was launched in December 2012.

Phase 1 of the Project was implemented during December 2012 to October 2013. The JICA Expert Team compiled the results of Phase 1 and plan of Phase 2 into a Project Implementation Plan and submitted to the Thai side in May 2014.

Accordingly, two kick-off meetings for the Phase 2 were organized to discuss the outline of the Project Implementation Plan and obtain comments from both Thai and Japanese sides. The 1st kick-off meeting, chaired by Mr. Pongboon Pongtong, Deputy Secretary General of ONEP, was held at ONEP on 28th May 2014, with the attendance of participants listed in Appendix 1. The 2nd kick-off meeting, chaired by Mr. Jumpol Siriswasdi, Director of REO8, was held at the REO8, Ratchaburi on 29th May 2014, with the attendance of participants listed in Appendix 2.

Following the two kick-off meetings, a wrap-up meeting, chaired by Mr. Pongboon Pongtong, Deputy Secretary-General of ONEP, was held on 30th May 2014 at the Pullman Bangkok Hotel G, with the attendants as shown in Appendix 3 attached herewith.

Through the discussions at this wrap-up meeting, a number of constructive comments and suggestions were raised by the attendants, the outline of the Project Implementation Plan for the Phase 2 was revised as shown in Appendix 4, and the following points are officially acknowledged:


Conclusions made by the Kick-off and Wrap-up Meetings

1) Project Purpose and Outputs

Both sides agreed on the Project Purpose and Outputs mentioned in the Project Implementation Plan.

2) Project Implementation Organization

Both sides agreed on the Project Implementation Organization mentioned in the Project Implementation Plan, and acknowledged that the formation of the JICA Project Team has been changed in the Phase 2.

J. Siriswasdi


3) Achievements of the Phase 1

Both sides agreed on the achievements in the Phase 1 mentioned in the Project Implementation Plan.

4) Overall Project Work Schedule

Through the discussions, both sides agreed that the Regional EQMP (R-EQMP) shall be finalized by August 2014 by cooperation and efforts from both sides. Also, the activities for Output 2 and 3 can be implemented in parallel with those for Output 1.

Other points related to the overall project work schedule were agreed as mentioned in the Project Implementation Plan by both sides.

5) Implementation Technical Approach

Both sides agreed on the Technical Approaches mentioned in the Project Implementation Plan.

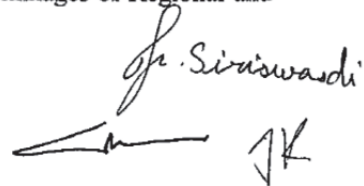
6) Implementation Operational Approach

Both sides agreed on the Operational Approaches mentioned in the Project Implementation Plan.

7) Work Tasks

Both sides confirmed the following points for modification of the Work Tasks. Other points were agreed as mentioned in the Project Implementation Plan.

- A mid-term review, as stipulated in the R/D, will be omitted. However, both sides will regularly monitor the project implementation and progress. A terminal evaluation will be conducted six months before the termination of the Project. The evaluation schedule will be determined through the discussion between the Thai and Japanese sides.
- For the Work Task 1-4 [Development of a method for participatory planning and monitoring of Regional and Provincial EQMP], it is not necessary to include Provincial EQMP in the Work Task. A manual for formulation and monitoring of R-EQMP, including how to transfer the R-EQMP to the provincial level, shall be prepared under the Work Task 1-4.
- For the Work Task 1-5 [Monitoring in the implementation of Regional EQMP and Provincial EQMP], it is not necessary to include Provincial EQMP in the Work Task. However, both sides agreed to review the selected existing Provincial EQMP as an example to understand the linkages of Regional and Provincial EQMP.

Jr. Sirinwasdi


- Based on the Work Tasks and Schedule, a more detailed operational plan of each activity, including responsible persons, shall be jointly formulated by both sides.

8) Outputs and Materials

Thai side strongly requested translation of several documents into Thai, especially the parts of R-EQMP that will be used when working with Provinces and Local Authorities.

Japanese side replied that translation of materials and documents into Thai, especially for working with Provinces and Local Authorities will be prepared as much as possible. For final submission of each output, both sides will discuss and decide which output shall be translated into Thai and who will be responsible for the translation.

9) Training Programs in Japan

Both sides agreed the Training Programs in Japan as mentioned in the Project Implementation Plan. The schedule, number of participants, and contents of the Training Programs will be discussed and decided by the Thai and Japanese sides.

Appendix:

1. List of attendants of Kick-off meeting at ONEP on 28 May 2014
2. List of attendants of Kick-off meeting at REO8 on 29 May 2014
3. List of attendants of Wrap-up meeting of Kick-off meetings on 30 May 2014
4. Outline of Project Implementation Plan (English and Thai) presentation materials (PPT)

* * * *

W. S.

Dr. Siriswadi

[Signature]

Appendix 1: Attendants at the Phase 2 Kick Off Meeting

Date / Time: 10:00 – 12:00, 28th May 2014
Venue: ONEP

List of Attendants

Name	Organization
Thai Side	
1. Mr. Pongboon Pongtong	ONEP
2. Ms. Nareerat Panmancee	ONEP
3. Mr. Teerapong Laopongpith	ONEP
Japan Side	
4. Mr. Noriaki MURASE	JICA HQ
5. Mr. Toru TAGUCHI	JICA HQ
6. Mr. Juichiro SAHARA	JICA Thailand
7. Mr. Fumiya MISAKA	JICA Thailand
8. Ms. Jamaree Yamklinfung	JICA Thailand
9. Mr. Toshiaki KUDO	JICA Expert Team
10. Mr. Akinori SATO	JICA Expert Team
11. Ms. Ayumi KOYAMA	JICA Expert Team
12. Ms. Gessarin Gunthawong	JICA Expert Team

Notes:

ONEP: Office of Natural Resources and Environmental Policy and Planning

REO 8: Regional Environmental Office 8

JICA: Japan International Cooperation Agency

Appendix 2: Attendants at the Phase 2 Kick Off Meeting

Date / Time: 9:40 – 12:00, 29th May 2014

Venue: REO 8

List of Attendants

Name	Organization
Thai Side	
1. Mr. Jumpol Siriswasdi	REO 8
2. Mr. Piya Prohmsathit	REO 8
3. Ms. Yaowanart Plaimart	REO 8
4. Mr. Teerapong Boontongluan	REO 8
5. Ms. Nareerat Panmanee	ONEP
6. Mr. Teerapong Laopongpith	ONEP
Japan Side	
7. Mr. Noriaki MURASE	JICA HQ
8. Mr. Toru TAGUCHI	JICA HQ
9. Mr. Fumiya MISAKA	JICA Thailand
10. Ms. Jamaree Yamklinfung	JICA Thailand
11. Mr. Toshiaki KUDO	JICA Expert Team
12. Mr. Akinori SATO	JICA Expert Team
13. Ms. Ayumi KOYAMA	JICA Expert Team
14. Ms. Gessarín Gunthawong	JICA Expert Team

Notes:

ONEP: Office of Natural Resources and Environmental Policy and Planning

REO 8: Regional Environmental Office 8

JICA: Japan International Cooperation Agency

Appendix 3: Attendants at the Phase 2 Kick Off Meeting

Date / Time: 9:00 – 12:00, 30th May 2014

Venue: Pullman Hotel Bangkok Hotel G

List of Attendants

Name	Organization
Thai Side	
1. Mr. Pongboon Pongtong	ONEP
2. Ms. Nareerat Panmanee	ONEP
3. Mr. Chatchai Intatha	ONEP
4. Mr. Jumpol Siriswasdi	REO 8
5. Mr. Piya Prohmsathit	REO 8
6. Ms. Yaowanart Plaimart	REO 8
7. Mr. Teerapong Boontongluan	REO 8
Japan Side	
8. Mr. Noriaki MURASE	JICA HQ
9. Mr. Toru TAGUCHI	JICA HQ
10. Mr. Juichiro SAHARA	JICA Thailand
11. Mr. Fumiya MISAKA	JICA Thailand
12. Ms. Jamaree Yamklinfung	JICA Thailand
13. Mr. Toshiaki KUDO	JICA Expert Team
14. Mr. Akinori SATO	JICA Expert Team
15. Ms. Ayumi KOYAMA	JICA Expert Team
16. Ms. Gessarín Gunthawong	JICA Expert Team

Notes:

ONEP: Office of Natural Resources and Environmental Policy and Planning

REO 8: Regional Environmental Office 8

JICA: Japan International Cooperation Agency

2. 隔週会議

Date	Participants	Venue	Objectives
June 5 and 6, 2014	REO8/JET	Ratchaburi	<ul style="list-style-type: none"> • To clarify the R-EQMP finalization process • To discuss and decide detailed plans for each task • To discuss the training program in Japan
June 11, 2014	ONEP/JET	Bangkok	<ul style="list-style-type: none"> • To share the results of the meeting with REO 8 held on June 5 & 6 and discuss further activities
June 20, 2014	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • To clarify the R-EQMP finalization process • To discuss and decide detailed plans for each task • To discuss the training program in Japan
July 1, 2014	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • To report results of Planning Workshop 5 • To explain the selection process and criteria for the selection of the pilot project • To discuss training in Japan
July 23, 2014	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • To report the progress of work • To inform the result of Pilot Project Workshop 1 • To discuss R-EQMP concerns • To inform participants about training in Japan
18 Aug. 2014	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • To discuss project's progress work • To inform results and evaluation of Pilot Project Workshop 2 • To discuss status of R-EQMP finalization • To talk about JCC meeting in September • To discuss capacity assessment workshop with PAO and capacity development workshop • To address the training in Japan, newsletter Vol.2, and project's website
12 Sept 2014	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Preparation of the 2nd JCC Meeting
22 Sept 2014	ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Progress of the 2nd JCC Meeting Preparation • Capacity Assessment and Capacity Development Workshops • Training in Japan
10 Oct 2014	PONRE/REO8/JET	Ratchaburi	<ul style="list-style-type: none"> • Comments on R-EQMP by the JCC • Schedule and Target for the Finalization of R-EQMP • Promotion of R-EQMP • Content of Newsletter

Date	Participants	Venue	Objectives
20 Oct 2014	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Finalization of the R- EQMP • Preparation of the R-EQMP Draft Executive Summary • Roles of ONEP and REO8 in preparation of R-EQMP Draft Executive Summary
19 Dec 2014	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Progress of Pilot Projects Implementation • GIS and Spatial Analysis Training Seminar • Results of Capacity Assessment and Capacity Development Workshops • Progress of Public Awareness
13 Jan 2015	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Finalization of the Executive Summary of the R-EQMP • Progress of Pilot Projects Implementation • GIS and Spatial Analysis Training Seminar • Progress of Public Awareness Workshops and Draft PA Guideline Preparation • Draft copy of the Newsletter Volume 2
12 Feb 2015	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Progress of R-EQMP Executive Summary Thai Version preparation • Regional Seminar on March 06 • Progress of Pilot Projects Implementation • Progress of Public Awareness Guideline • Results of GIS and Spatial Analysis Training • Capacity Assessment and Capacity Development results and Intervention Plan • Project Proposal Training • Draft TOC of PR 3 • Newsletter Volume 2 • Three-month Schedule of Activities (March-May 2015) • Meetings with OPS and Environmental Fund
March 20, 2015	REO8/ONEP/ PONRE/JET	Ratchaburi	<ul style="list-style-type: none"> • Discuss the results of the Regional Seminar held on March 6, 2015 • Progress of the following works: <ul style="list-style-type: none"> – Pilot Project implementation – Public Awareness – Training Seminar on project proposal preparation and fund accessing – 2nd training in Japan preparation • Review of projects and programs contained in the R-EQMP
June 10, 2015	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Discuss the results of the following: <ul style="list-style-type: none"> – 3rd JCC Meeting-May 15, 2015 – Project Proposal Seminar Training on May 28-29, 2015 – PP Advisory Team Meeting on April 27, 2015 • Progress in the implementation of Pilot Project 1 & 2 • Update of Environmental Profile Preparation
July 24, 2015	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • Discuss about the following concerns: 3rd training in Japan <ul style="list-style-type: none"> – 3rd Training in Japan – Project Final Evaluation

Date	Participants	Venue	Objectives
			<ul style="list-style-type: none"> - Project Final Seminar • Share schedule of experts' dispatch to Ratchaburi
September 14, 2015	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • To discuss the progress of PR 4 preparation and submission • To share upcoming activities; PA Skills Enhancement Seminar, P-EQMP Review Workshop, Training on GIS and Spatial Analysis, final capacity assessment, manual for participatory planning and monitoring of R-EQMP, project completion report, National Seminar and target schedule of the 4th JCC Meeting • To share the progress of environmental profile finalization and printing • To discuss other issues; progress of pilot project 1 and 2 implementation, progress of Tha Yang Proposal submitted to Embassy of Japan and experts' schedule
November 16, 2015	REO8/ONEP/ PONRE/JET	Ratchaburi	<ul style="list-style-type: none"> • To report and summarize Environmental Public Awareness (PA) guideline • To discuss about Environmental Profile (Draft) • To report and review manual for R-EQMP Planning/monitoring • To report and discuss on Pilot Project (PP) monitoring and evaluation • To report progress of Final capacity assessment • To review tentative schedule of project completion • To discuss schedule of official termination of the project
December 15, 2015	REO8/ONEP/JET	Bangkok	<ul style="list-style-type: none"> • To discuss about Progress of Remaining works • To discuss about National Seminar • To discuss about Final JCC Meeting • To discuss about completion report • To confirm about materials for Re/Production and Publication • To inform about schedule of project office closure

3. プランニングワークショップ

Please refer R-EQMP in Appendix Disk format incorporated the result of the workshops.

Planning Workshop-1

Date	Participants	Venue	Objectives
May 29, 2013	REO8/ Samut Songkram PONRE And related organizations	Samut Songkram	<ul style="list-style-type: none"> To provide a venue to share ideas and opinions about the existing environmental management system in REO8 jurisdiction; To come up with common understanding of the existing environmental conditions and problems faced by the provinces in REO8 jurisdiction
June 4, 2013	REO8/ Kanchanaburi PONRE And related organizations	Kanchanaburi	
June 6, 2013	REO8/ Ratchaburi PONRE And related organizations	Ratchaburi	
June 7, 2013	REO8/ Petchaburi PONRE And related organizations	Petchaburi	
June 3,10,11, 2013	REO8/ Prachup Khiri Khan PONRE And related organizations	Prachup Khiri Khan	

Planning Workshop-2

Date	Participants	Venue	Objectives
June 11, 2013	REO8/5 PONREs/ONEP/key stakeholders from 5PONREs	Ratchaburi	<ul style="list-style-type: none"> To formulate vision of REO8 towards 2026 To set goals for 2016 To identify management issues

Planning Workshop-3

Date	Participants	Venue	Objectives
June 17, 2013	REO8/5 PONREs/ONEP/key	Ratchaburi	To formulate environmental strategies, measures by management units namely; environmental spatial management,

Date	Participants	Venue	Objectives
	stakeholders from 5PONREs		natural resource management, pollution control, wildlife conservation and protected area management and urban environmental management

Planning Workshop-4

Date	Participants	Venue	Objectives
June 18, 2013	REO8/5 PONREs/ONEP/key stakeholders from 5PONREs	Ratchaburi	To formulate environmental measures by management units namely; environmental spatial management, natural resource management, pollution control, wildlife conservation and protected area management and urban environmental management

Planning Workshop-5

Date	Participants	Venue	Objectives
June 25, 2014	REO8/5 PONREs/ONEP/Regional offices of MNRE	Ratchaburi	<ul style="list-style-type: none"> • To identify programs and projects to be implemented under the Regional EQMP • To clarify next steps for Regional EQMP finalization, authorization and dissemination.

4. 各種セミナー、ワークショップ

Regional Seminar

Date	Participants	Venue	Objectives
March 6, 2015	ONEP/REO8/5PONREs/ Ratchaburi Province/LAs	Ratchaburi	<ul style="list-style-type: none"> Explanation of Regional EQMP

National Seminar

Date	Participants	Venue	Objectives
January 28, 2016	ONEP/REO8/5PONREs/ Other departments under MNRE/LAs	Bangkok	<ul style="list-style-type: none"> To share the results and lessons learned/ recommendations of the project

Public Awareness Workshop

Please refer Public Awareness Guideline in Appendix Disk format incorporated the result of the workshops.

Date	Participants	Venue	Objectives
October 10, 2014	REO 8, and 5 PONREs	Ratchaburi	<ul style="list-style-type: none"> To share the experiences of Public Awareness activities of each PONRE To discuss what difficulties they face during the implementation of the activities, and what are the expected solutions.
January 27, 2015	ONEP, PCD, REO 8, and 5 PONREs	Ratchaburi	<ul style="list-style-type: none"> To check the first draft of the guideline, and share the ideas to elaborate.
April 7, 2015	REO 8, and 5 PONREs, Paktho SDM	Ratchaburi	<ul style="list-style-type: none"> To check the second draft of the guideline, and share the ideas to elaborate.
July 17, 2015	ONEP, PCD, DEQP, REO 8, and 5 PONREs, Thayang SDM, Paktho SDM	Ratchaburi	<ul style="list-style-type: none"> To share the significant points to be incorporated to the guideline from the learning of JP training To check the third draft of the guideline Explanation of trial use of the guideline
November 23, 2015	ONEP, REO 8, and 5 PONREs, Thayang SDM, Paktho SDM	Ratchaburi	<ul style="list-style-type: none"> To finalize the guideline

P-EQMP Evaluation Meeting

Please refer R-EQMP Manual in Appendix Disk format incorporated the result of the meetings.

Date	Participants	Venue	Objectives
September 25, 2015	REO8/ PONRE Ratchaburi	Ratchaburi	<ul style="list-style-type: none"> To understand the extent in which the R-EQMP is considered in the formulation of the P-EQMP and/or the P-EQMP is considered in the formulation of the R-EQMP, as the case maybe. To know any gaps and problems
September 28, 2015	REO8/5PONREs	Ratchaburi	

Date	Participants	Venue	Objectives
			<ul style="list-style-type: none">• To identify measures that will lead the establishment of the “linkage” and/or strengthen the existing “linkage”

5. CA および能力開発に関わる会議、トレーニング、セミナー

Please refer Appendix Volume 2 for the results of Capacity Assessment and Development.

1st Capacity Assessment

Date	Participants	Venue	Objectives
March 12, 2013	REO 8	Ratchaburi	<ul style="list-style-type: none"> • To determine the level of desired capacity • To assess the level of existing capacity • To identify the gaps
March 15, 2013	REO 8	Ratchaburi	
March 18, 2013	PONRE Ratchaburi	Ratchaburi	
March 18, 2013	PONRE Samut Songkram	Samut Songkram	
March 19, 2013	PONRE Kanchanaburi	Kanchanaburi	
March 25, 2013	PONRE Prachup Khiri Khan	Prachup Khiri Khan	
March 26, 2013	PONRE Petchaburi	Petchaburi	

2nd Capacity Assessment

Date	Participants	Venue	Objectives
October 7, 2015	PONRE Ratchaburi PAO Ratchaburi	Ratchaburi	<p>To discuss existing capacities in response to environmental management related issues as well as to clarify areas of partnership and collaboration in environmental management concerns in the province.</p>
October 9, 2015	PONRE Samut Songkhram PAO Samut Songkhram	Samut Songkhram	
October 15, 2015	PONRE Kanchanaburi PAO Kanchanaburi	Kanchanaburi	
October 16, 2015	PONRE Petchaburi PAO Petchaburi	Petchaburi	
October 17, 2015	PONRE Prachuap Khiri Khan PAO Prachuap Khiri Khan	Prachuap Khiri Khan	
October 22, 2015	ONEP	Bangkok	
November 10, 2015	REO 8	Ratchaburi	

3rd Capacity Assessment

Date	Participants	Venue	Objectives
November 5, 2015	PONRE Ratchaburi	Ratchaburi	To clarify the results, effects and impact of the project intervention to capacity development of REO8 jurisdiction (including on-the-job training, trainings and seminars and training in Japan)
November 11, 2015	PONRE Samut Songkhram	Samut Songkhram	
November 13, 2015	PONRE Kanchanaburi	Kanchanaburi	
November 19, 2015	Pak Tho SDM	Pak Tho	
November 20, 2015	PONRE Phetchaburi	Petchaburi	
November 20, 2015	Tha Yang SDM	Tha Yang	
November 27, 2015	REO8	Ratchaburi	
December 1, 2015	Prachup Khiri Khan	Prachup Khiri Khan	
December 3 and 4, 2015	ONEP	Bangkok	

Skill Enhancement trainings/seminars

Seminar on Introduction of Quantum GIS

Date	Participants	Venue	Objectives
April 5, 2013	REO 8	Ratchaburi	To introduce functions of Quantum GIS to REO8 staff whose skill on the GIS differs from intermediate to advance

Quantum GIS Training Seminar

Date	Participants	Venue	Objectives
September 21, 2013	REO 8	Ratchaburi	To understand environmental sensitive zoning deeper.

GIS and Spatial analysis Training

Date	Participants	Venue	Objectives
February 2, 3, 4, and 5, 2015	ONEP/ REO8/ 5 PONREs	Ratchaburi	<ul style="list-style-type: none"> • Overview of Geographic Information System • GIS and Quantum GIS • Overview of GPS (GERMIN eTrex 20) • Working with Satellite Images (Remote Sensing) • Introduction to Environmentally Sensitive Zoning • Map Layout and Printing

GIS and Spatial Analysis Advanced Course

Date	Participants	Venue	Objectives
October 5, 6, and 7	ONEP/ REO8/ 5 PONREs	Ratchaburi	To understand and prepare Environmental Sensitive Zoning (ESZ) maps

Project Proposal

Date	Participants	Venue	Objectives
May 28 and 29, 2015	REO8/5 PONREs/ Tha Yang SDM/ Pak Tho SDM	Ratchaburi	To know the basics of fund sourcing and fund accessing, and broaden knowledge and enhance skills in designing project proposals related to waste management as a sample issue

Water Quality Management System Seminar

Date	Participants	Venue	Objectives
August 20, 2015	ONEP/ REO8/ 5 PONREs/ Pak Tho Community working group members	Ratchaburi	The seminar on water quality management system was conducted with the view of understanding and share experiences and knowledge on water quality control and management in REO8 jurisdiction.

Public Awareness Skills Enhancement Seminar

Date	Participants	Venue	Objectives
September 23, 2015	REO8/5 PONREs/ DEQP/29 LAs/ Office of Environmental Foundation/ Green World Foundation/ Muban Chonbun Rajaphat University/ CP	Ratchaburi	<ul style="list-style-type: none"> To enhance skills, knowledge and orientation of key personnel in REO8 jurisdiction in undertaking environmental related public awareness and environmental education activities; To provide a venue for the Japan trainees to share information about the public awareness practices implemented in Japan and impart the skills and knowledge learned during the training in Japan.

Japan Training

Date	Participants	Venue	Objectives
October 26 – November 1, 2014	ONEP/ PCD/OPS/REO 8/ 5PONREs (For management level)	Tokyo and Shizuoka	<ul style="list-style-type: none"> To understand formulation of environmental policy and plan in Japan To obtain idea on environmental management mechanism from experiences of Japan
June 7 – 20, 2015	ONEP/ REO8/ 5PONREs/ Tha	Tokyo, Kanagawa,	<ul style="list-style-type: none"> To understand the process in the formulating, implementing, and

Date	Participants	Venue	Objectives
	Yang SDM/ Pak Tho SDM	and Fuji	monitoring/ evaluation of the environmental management at National, Prefecture and City levels
November 3 – 17, 2015	ONEP/ REO8/ 5PONRES/ Tha Yang SDM/ Pak Tho SDM	Tokyo, Kanagawa, and Fuji	<ul style="list-style-type: none"> • To learn experiences of Japan in the implementation of environmental management • To learn Japanese experiences in community participation in environmental management

- Proceedings of each Japan Training are attached as follows

5.1. Report of 1st Japan Training

**Strengthening Environmental Management and Linkages
among Central, Regional, Provincial and Local Levels**

Japan Training :

**Formulate policy and plan for regional environment
management**

November 2014

Oriental Consultants Global Co., Ltd.

1. OUTLINE OF COURSE

1.1 Course title

Training for policy and planning of regional environmental management

1.2 Training period

From 27th October 2014 to 31th October 2014 (without crossing day)

1.3 Number of trainees

Participants are 14 as follows:

	Organization	Name	Title
1	Office of Natural Resources and Environmental Policy and Planning (ONEP)	Ms. Putprasert Chidchanok	Director of Secretary Office
2	Office of Natural Resources and Environmental Policy and Planning (ONEP)	Ms. Nareerat Panmanee	Environmental Senior Professional Level
3	Office of Natural Resources and Environmental Policy and Planning (ONEP)	Ms. Duangrut Mookmanee	Environmental Professional Level
4	Office of Natural Resources and Environmental Policy and Planning (ONEP)	Ms. Siwinee Dilokratana-pijit	Environmental Professional Level
5	Office of the Permanent Secretary (OPS)	Mr. Thongbai Boonyaseneekul	Director of Office of Monitoring and Evaluation
6	Office of the Permanent Secretary (OPS)	Ms. Kanda Chookaew	Environmental Senior Professional Level
7	Public Control Department (PCD)	Mr. Punntorn Kawyord	Environmental Professional Level
8	Eighth Regional Environmental Office (REO8)	Mr. Piya Promsatit	Chief of Environment Section
9	Eighth Regional Environmental Office (REO8)	Ms. Yaowanart Plaimart	Environmental Professional Level
10	PONRE Ratchaburi	Mr. Sawong Sudprasert	Director of Ratchaburi PONRE
11	PONRE Phetchaburi	Mr. Pipop Phatcharaphansakul	Director of Phetchaburi PONRE
12	PONRE Prachuap Khiri Khan	Mr. Aram Sriprang	Director of Prachuabkirikhan PONRE
13	PONRE Kancharaburi	Mr. Mongkol Nilprapaporn	Chief of Environment Section
14	PONRE Samut Songkhram	Mr. Manop Yanpisitkul	Chief of Environment Section

1.4 Implementation structure

(1) Receiver of the course

Japan International Cooperation Agency (JICA) Tokyo International Center

Course coordinator (Thai interpretation): Mario KASUYA

Course coordinator (English interpretation): Kazuko KOYAMA

(2) Implementing agency

Oriental Consultants Global Co. Ltd.,

2. CONTENTS

(1) Course objective

- To understand formulation of environmental policy and plan in Japan
- To obtain idea on environmental management mechanism from experiences of Japan

2.1 Conceptual of the course

Trainees visited Ministry of Environment, Shizuoka prefecture, and Fuji city to understand the roles of each organization level, and linkage among central, provincial and city levels on environmental management. On the last day of the course, trainees shared their ideas and opinions how to apply what they learned into their daily works, especially, regarding to the roles of their works. Figure 2.1 shows the concept of the training course.

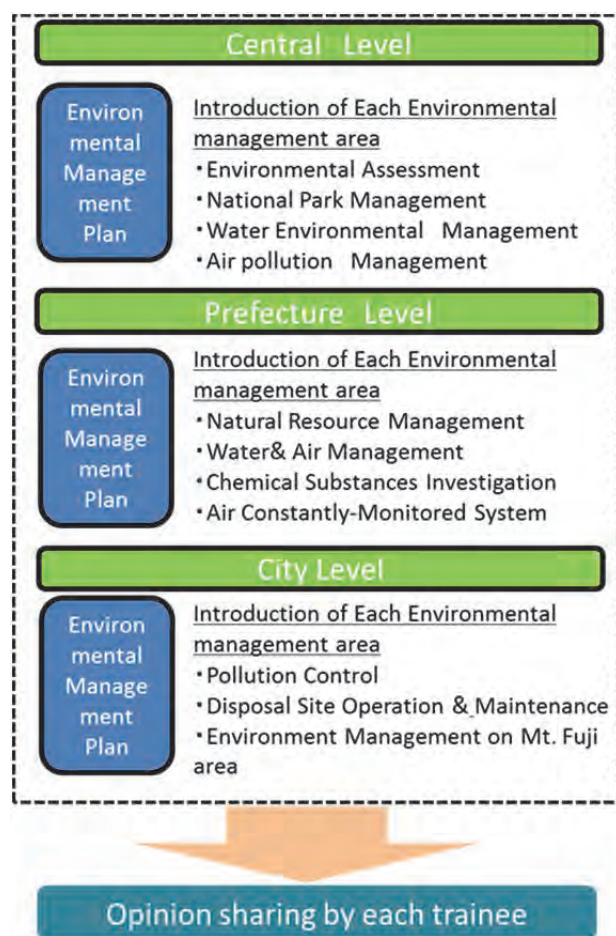


Figure 2.1 Conceptual diagram of training course

(1) Course Schedule

26th October 2014 – 1st November 2014.

Date	Time	Contents	Lecturer	Place
26th Oct 14		Arrive at Japan Accommodation JICA Tokyo	---	JICA Tokyo
27th Oct 14	10:00- 12:00	Briefing/ Courtesy call to JICA HQ (Some participants move to JICA HQ to participate Courtesy call)	---	JICA Tokyo/ JICA HQ
	14:00- 17:00	Ministry of Environment	Environmental Policy Bureau, Ministry of Environment	Ministry of Environment
28th Oct 14	10:00- 12:00	Ministry of Environment	Nature Conservation Bureau, Ministry of Environment	Ministry of Environment
	12:00- 13:20	Lunch (box lunch)	---	Lecture room
	13:30- 15:30	Ministry of Environment	Environment Management Bureau, Ministry of Environment	Ministry of Environment
	16:00-	Move to Shizuoka	---	Shizuoka
29th Oct 14	9:30- 9:40	Opening and Orientation	---	Shizuoka prefectural office
	9:40- 10:40	Lecture I - 1 Promotion of policies based on Environmental plan	Mr. Yasuhiro Ayabe	
	10:50- 11:50	Lecture I - 2 Conservation of Natural environment	Mr. Jun Hirano	
	11:50- 13:00	Lunch	---	Fuji no kuni terrace
	13:15- 13:45	Q&A / Discussions with the department head	Mr. Hiroshi Iketani	Shizuoka provincial office
	13:45- 14:15	Move to Institute of environment and sanitation	---	
	14:15- 15:15	Lecture II Air and water quality	Mr. Toshiya Fujita Mr. Mitsuo Sano	Institute of environment and sanitation
	15:15- 15:20	Opening	Mr. Hidehiko Yamaguchi	
	15:20- 16:30	Linkage between national and prefectural level for studying of chemical substances	Mr. Issei Kume Mr. Tomohide Kaneko Mr. Yumie Maeda Mr. Eijiro Shinohara	
	16:30	Back to Hotel by car	---	Shizuoka
30th Oct 14	9:30- 9:45	Opening	---	Fuji city office
	9:45- 11:00	Lecture I Environmental Pollution	Mr. Shinya Kondo Mr. Shotaro Mochizuki	
	11:00- 12:00	Lecture II Environmental Management Plan	Mr. Yukinori Sugita	
	12:00- 13:15	Lunch	--	Restaurant
	13:15 13:45	Move to Landfill site	--	

Date	Time	Contents	Lecturer	Place
	13:45-14:45	Site visit Landfill site	Mr. Katsunori Nakamura	Landfill site
	14:45-15:15	Move to Fuji city office by car	--	
	15:15-16:00	Environmental management for Mt. Fuji area	Mr. Yukinori Sugita	Fuji city office
	16:00-	Move to Tokyo	--	Tokyo
31st Oct 14	10:00-12:00	Evaluation/ Report Meeting	---	JICA HQ
31 st Oct / 1st Nov 14		Back to Thailand	--	--

3. Details of the course

3.1 Lecture in the Ministry of Environment

Lectures to understand formulation of environmental management plan and roles for each environmental management area by central government were conducted by the Ministry of Environment during first and second days of the course. Each lecture is shown below:

- (1) Outline of the Fourth Basic Environment Plan (27th October, Environmental Policy Bureau of the Ministry of Environment)
- (2) Japanese environmental impact assessment system (27th October, Environmental Policy Bureau of The Ministry of Environment)
- (3) Operation and management of national park (28th October, Environmental Policy Bureau of The Ministry of Environment)
- (4) Water and air pollution Management (8th October, Environmental Management Bureau of The Ministry of Environment)

Trainees learned each lectures by comparing with their own work experiences in Thailand, and asking questions to lecturer. Many of trainees raised the question regarding to involvement of community people, NGOs, knowledgeable people and its difficulties. Because NGOs are actively working and sometimes they stand opposite side of the government. Also, trainees were surprised at more severe environmental standards on water and air pollution than those of national level that prefecture and city level sets voluntary.

3.2 Lecture and site visits of prefecture and city level government

Based on the lectures of the Ministry of Environment, trainees visited prefecture and city level government and took the lectures and site visits.

(1) Shizuoka Prefecture (29th October)

- Lecture I-1 Promotion of policies based on Environmental plan
- Lecture I -2 Conservation of Natural resource environment
- Q&A / Discussions with the department head
- Lecture II - 2 Air and Water Quality
- Linkage between national and prefectural level for examination of chemical substances investigation

- Brief overview air constantly-monitored in Shizuoka Prefecture
- Visit to telemeter system

Trainees took lectures and site visit on formulation of environment basic plan and the implementation of environmental management based on the plan in Shizuoka prefecture. First, trainees tried to understand differences between Thai and Japan local government system, and then, questions about amount of the budget and the way of its preparation were raised. Smooth and efficient budget preparation is kind of bottleneck for the implementation in regional and provincial levels of Thailand; trainees seemed to be interested in the budget preparation system in Japan.

Regarding Q&A and discussions with the head of community and environmental affair's department, first of all, the department head explained direction of environmental management in Sizuoka prefecture. After that, trainees and the department head and chiefs exchanged opinions for environmental management.

Trainees were much interested in questions about measurement of environmental pollutions which experienced in the past. The department head shared that nowadays officers for environmental pollution were no longer hired because of much improvement, and private sectors around were requesting lighter regulations to the prefecture. However, the prefecture insisted to refuse such requests to maintain favorable environment, and trainees showed their sympathy to the prefecture's direction.

(2) Fuji city office (30th October)

- Opening (greeting by a representative of trainees, welcome speech by Fuji city, and self-introduction of the participants)
- Lecture I – Environmental Pollution
- (a) Measurement of water pollution in Fuji city
- (b) Measurement of air pollution in Fuji city
- Environmental basic plan in Fuji City
- Site visit of Final disposal site
- Environment management plan in Mt. Fuji area
- Q and A

In Fuji city, trainees learned environmental basic plan and its implementation, moreover, visited to final disposal site. Trainers were surprised that Mt. Fuji was called "Mt. Garbage" before; they were interested in the way how to clean the Mt. Fuji up to now.

Presently, solid waste management, especially improvement of final disposal site, is first priority item of the environmental management in Thailand. Therefore, trainees enjoyed site visit to the final disposal site, and raised many kinds of questions. Community people in Fuji city are now using groundwater as drinking and domestic water; Fuji city strictly manages not to sink polluted water into ground. Also, Fuji city conducted many meetings to community people living near the site to get acceptance for construction of the final disposal site. Fuji city spend much time for that, and trainees understood the importance of continuous discussion with community people.

(3) JICA Courtesy call (30th October)

Trainees explained progress of project. Especially trainees emphasized Japanese high awareness for environment, and wanted to widespread such high awareness to Thailand. Mr. Naoki Mori, Executive technical advisor to the Director General, mentioned importance of appropriate cooperation between Thai and Japanese side for smooth implementation of the project, and both sides recognized further co-implementation of the project.

(4) Opinion sharing (30th October)

The last day of the course was for sharing opinions by the trainees what leaned and impressed during the course. Each of the trainees shared their opinions, and those could be summarized as follows:

- Being impressed for applying more strict environmental standards than national level by prefecture and city level. It is lessons and learned by the experiences of environmental pollution.
- Law and regulations for environmental management in Japan is similar for those of Thailand. Therefore, it made them confident that Thai also can achieve environmental management like Japan. On the other hand, Thai had problems for its operations. For example, central government has more power; it is difficult to formulate and implement environmental management plan by local initiatives.
- It is important that close communication and cooperation among related departments for formulation of the plan. Thai also needs to establish such a structure.
- Thai also conducts periodical monitoring of water and air quality, but utilization of results of the monitoring is weak. The results should be incorporated in the plan.
- Japanese high awareness for environment, the mind of MOTTAINAI, and sincere attitudes toward to work needs to be applied into environment management in Thailand

Especially, trainees were very impressed to Japanese high awareness for environment, and the attitudes towards to work. They expressed their opinions that such high awareness should be promoted through the project activities in Thailand.

4. APPLICATION OF TRAINING EFFECT

Most of things which trainees know and understand through the series of classes and field visits were not so new to them, actually. Some of the trainees pointed out that law and regulations for environmental management in Japan were similar with those of Thailand, but people's attitudes towards to environmental management were different. Many trainees raised their great impression to Japanese high awareness to environment by seeing no wastes in the public places. Also they mentioned sincere attitudes to works by each Japanese staff.

Through the course, trainees learned the importance of awareness raising to the publics, close communication among related departments under the Ministry, and capacity development to each governmental official, as well as the techniques. There is no shortcut to achieve them, and activities to enhance their capacity, promote awareness raising to the publics are incorporated further project activities.

5.2. Report of 2nd Japan Training

**Strengthening Environmental Management and Linkages
among Central, Regional, Provincial and Local Levels**

Japan Training :
**Capacity development of environmental
management**

June 2015

Oriental Consultants Global Co., Ltd.

1. OUTLINE OF COURSE

1.1 Course title: Capacity development of environmental management

1.2 Training period

From 8th June 2015 to 19th June 2015 (without crossing day)

1.3 Number of trainees

Participants are 15 as follows:

organization	Name	Position
ONEP	● Mr. Teerapong Laopongpith	Environmentalist Professional Level
	● Ms. Usaras Janpakdee	Environmentalist Professional Level
	● Mr. Keatipibool Sangsee	Environmentalist Professional Level
	● Mr. Wiroon Sumleeraj	Environmentalist Practitioner Level
REO8	● Mr. Teerapong Boontongluan	Environmentalist Professional Level
	● Ms. Chaba Gaewpoung	Environmentalist Professional Level
Kanchanaburi PONRE	● Ms. Nipharat Tangsooksan	Environmentalist Practitioner Level
Ratchaburi PONRE	● Ms. Tikumporn Rattanarat	Plan and Policy Analyst Practitioner Level
	● Ms. Tubtim Limsoontorn	Environmentalist Practitioner Level
Samut Songkran PONRE	● Ms. Waratsaya Wanwalee	Environmentalist Practitioner Level
Petchaburi PONRE	● Mr. Nipon Chaisalee	Environmentalist Senior Professional Level
	● Ms. Chantana Bualom	Environmentalist Professional Level
Prachuap Khiri Khan PONRE	● Ms. Jirad Pranprasit	Environmentalist Senior Professional Level
Tessaban Tha Yang	● Ms. Chantra Mahabenchawong	Public Health Administration Officer
Tessaban Pak Tho	● Mr. Rungnirum Saardoad	Public Health Administration Officer

1.4 Implementation structure

(1) Receiver of the course

Japan International Cooperation Agency (JICA) Tokyo International Center

Course coordinator (Thai interpretation): Mario KASUYA

Course coordinator (Thai interpretation): Naoko Tateishi

(2) Implementing agency

Oriental Consultants Global Co. Ltd.,

2. CONTENTS

(1) Course objective

- To understand formulation of environmental policy and plan in Japan
- To obtain idea on environmental management mechanism from experiences of Japan

(2) Conceptual of the course

Trainees visited Ministry of Environment, Kanagawa prefecture, and Fuji city to understand the roles of each organization level, and linkage among central, provincial and city levels on environmental management. On before the last day of the course, one day group works were held and deepen their learnings how to apply into their daily works. On the last day, trainees shared the results of group works. Figure 1 shows the concept of the training course.



Figure 1 Conceptual diagram of training course

(3) Course Schedule

8th June 2015 – 19th June 2015.

No.	Date		Theme & Activity	Lecturer	Stay
7 th June	Sun		Bangkok -> Tokyo		Tokyo
8 th June	Mon	am	Briefing/Orientation	JICA HQ	Tokyo
		pm	<ul style="list-style-type: none"> ● Environmental Basic Plan ● Environmental Impact Assessment in Japan 	Environmental Policy Bureau, Ministry of Environment	
9 th June	Tue	am	<ul style="list-style-type: none"> ● Experience in Japan on Environmental Awareness raising and environmental education 	Environment and Economy Division, Environmental Policy Bureau, Ministry of Environment	Tokyo
		pm	<ul style="list-style-type: none"> ● Roles of National Government in solid waste management ● Promotion of waste reduction and recycling Framework for water pollution control 	Waste Management and Recycling Department	
			<ul style="list-style-type: none"> ● Enforcement of effluent standards and environmental standards ● Administration system of air pollution management 	Environmental Management Bureau, Ministry of Environment	
10 th June	Wed	am	<ul style="list-style-type: none"> ● National park management and operation in Japan 	Nature Conservation Bureau, Ministry of Environment	Tokyo
		pm	<ul style="list-style-type: none"> ● Preparation for report 	---	
11 th June	Thu	am	<ul style="list-style-type: none"> ● Environmental management planning and implementation ● Roles of Prefectural Government in environmental management ● Conservation of Natural Resources in Kanagawa prefecture 	Environmental Planning, Kanagawa Prefecture	Tokyo
		pm	<ul style="list-style-type: none"> ● Solid waste management by Kanagawa prefecture ● Environmental monitoring (air quality and water quality) 	Concerned Department, Kanagawa Prefecture	
12 th June	Fri	am pm	<ul style="list-style-type: none"> ● Visit Environmental Research Center 	Environmental Research Center Kanagawa Prefecture	Tokyo
13 th June	Sat		Preparation for report	---	Tokyo
14 th June	Sun	am	Move to Shizuoka by Express railway	---	Shizuoka
		pm	Preparation for report	---	

No.	Date		Theme & Activity	Lecturer	Stay
15 th June	Mon	am	<ul style="list-style-type: none"> ● Environmental policy, regulation, management measures of Fuji City ● Roles of City Government in environmental management ● Environmental management planning and implementation 	Fuji City Government	Shizuoka
		pm	<ul style="list-style-type: none"> ● Solid Waste Management ● Environmental monitoring (air quality and water quality) ● Environmental management around Mt. Fuji 		
16 th June	Tue	am	<ul style="list-style-type: none"> ● Community activities for solid waste management 	Fuji City Government	Tokyo
		pm	<ul style="list-style-type: none"> ● Site-visit: Waste disposal site in Fuji city Fuji City → Tokyo 		
17 th June	Wed	am	<ul style="list-style-type: none"> ● Site-visit: Waste disposal site in Tokyo 	Tokyo Metropolitan Government	Tokyo
		pm	<ul style="list-style-type: none"> ● Site-visit: Incineration plant in Tokyo 		
18 th June	Thu	am	Workshop for sharing learnings	Gloria E. Sato	Tokyo
		pm			
19 th June	Fri	am	Evaluation/Report Meeting	JICA HQ	Tokyo
20 th June	Sat	am	Tokyo -> Bangkok		Bangkok

3. Details of the course

3.1 Lecture in the Ministry of Environment

Lectures to understand formulation of environmental management plan and roles for each environmental management area by central government were conducted by the Ministry of Environment during first to third days of the course. Each lecture is shown below:

- (1) Outline of the Fourth Basic Environment Plan (8th June, Environmental Policy Bureau of the Ministry of Environment)
- (2) Japanese environmental impact assessment system (8th June, Environmental Policy Bureau of The Ministry of Environment)
- (3) Japanese experiences of environmental education and raising environmental awareness (9th June, Environmental Policy Bureau and Global Environmental Bureau of The Ministry of Environment)
- (4) Roles of National Government in solid waste management, and promotion of waste reduction and recycling Framework for water pollution control (9th June, Waste Management and Recycling Department of The Ministry of Environment)
- (5) Enforcement of effluent standards and environmental standards and Administration system of air pollution management (9th and 10th June, Environmental Management Bureau of The Ministry of Environment)
- (6) National park management and operation in Japan (10th June, Nature Conservation Bureau of The Ministry of Environment)

Trainees learned each lectures by comparing with their own work experiences in Thailand, and asking questions to lecturer. Many of trainees raised the question regarding to methodology of disclose and disseminate the information on formulated at central level to provinces, cities, and communities. Besides, based on the Thailand situations which NGOs are actively working, and communities express strong opinions, the trainees had questions on how to interact NGOs and communities.

The Ministry introduced “Fun to Share”, general term of series of activities to involve community peoples into low carbon society with fun. Environmental education is implemented in local basis, and attitude to think its problems together got much sympathy by the trainees.

3.2 Lecture and site visits of prefecture and city level government

Based on the lectures of the Ministry of Environment, the trainees visited prefecture and city level government and took the lectures and site visits.

(1). Kanagawa Prefecture

Lectures on 11th June

- (1) Environmental management planning and implementation
- (2) Roles of Prefectural Government in environmental management
- (3) Conservation of Natural Resources in Kanagawa prefecture
- (4) Solid waste management by Kanagawa prefecture
- (5) Environmental monitoring (air quality and water quality)

Site visit on 12th June

(6) Environmental Research Center

The trainees had lectures on formulation of environmental basic plan and its implementation, and visit Environmental Research Center under Kanagawa prefecture.

The trainees showed much interest to monitoring methods and its equipment of air and water monitoring system. Also, the trainees were surprised that the Prefecture set the severer regulations than National law, and the regulations prioritized as law enforcement. It can be realized because Japanese local administrations are independent from central government; local authorities work considering local situations with following plans formulated by central government. The trainees again recognized the differences of administration systems between Thai and Japan.

(2). Fuji city

Lectures on 15th and 16th

- (1) Environmental policy, regulation, management measures of Fuji City
- (2) Roles of City Government in environmental management

- (3) Environmental management planning and implementation
- (4) Solid Waste Management
- (5) Environmental monitoring (air quality and water quality)
- (6) Environmental management around Mt. Fuji
- (7) Community activities for solid waste management

Site visit on 16th

- (8) Final disposal site

In Fuji city, trainees learned environmental basic plan and its implementation, moreover, visited to final disposal site. The trainees were surprised that Mt. Fuji was called “Mt. Garbage” before; they were interested in the way how to clean the Mt. Fuji up to now.

The trainees raised many questions related to practical matters such as evaluation methods on individual activities come from the plan.

This time, the course included community activity on solid waste management, and one of the NPO working in Fuji city introduced their activities. From their presentation, the trainees were much interested in spirit of “Mottainai” and how to use Furoshiki, one of the traditions to show Mottainai.

Presently, solid waste management, especially improvement of final disposal site, is first priority item of the environmental management in Thailand. Therefore, trainees enjoyed site visit to the final disposal site, and raised many kinds of questions.

(3). Group works to share the learnings (18th June)

The trainees participated group works for sharing their learnings, and how to apply them into their daily works.

Lecturer/ Instructor

Ms. Gloria Edullantes Sato, Deputy Project Manager, JET

Assistants

Dr. Akinori Sato, JET

Ms. Ayumi Koyama, JET

Mr. Toshikazu Hiwaki, JET

Mr. Phermsak Lilakul, Interpreter

The group works went along three discussion points: Skills, Knowledge, and attitudes. The results are shown as follows.

1) Skill

- Interesting way to involve community people into environmental management, such as “Cool biz”, “Smart move”.
- Well coordination among government, private, NPO

2) Knowledge

- High techniques on monitoring and analyzing the substances
- High consideration for environment by national laws and prefecture regulations

3) Attitudes

- Good attitudes to environmental management by all generations of Japanese
- High awareness to environment established by environmental education to primary school level students.

The trainees were divided into four groups: national level as ONEP, regional level as REO 8, provincial level as PONRE, and city level as Tessabans.

(7) Reporting at JICA HQ (19th June)

The last day of the course was reporting at JICA HQ. The trainees shared mainly the results of the group works, and representatives of each group, ONEP, REO8, PONRE, and Tessaban shared the results of discussion.

➤ ONEP : Mr. Teerapong Laopongpith

Regarding to a formulation of plans, it doesn't have a big differences between Thai and Japan; however, implementation, evaluation, revision, and improvement of the plan are much different.

Japanese governmental organizations frequently publish or disseminate plans, leaflets, and any other related information to the public. Thai governmental organizations also need to

strengthen on this work in order to increase opportunities to disseminate roles of each stakeholder. For example, to approach private sector, it can be good to coordinate with business associations and they can be involved as spokesmen.

➤ REO8 : Mr. Teerapong Boontongluan

We learned kinds of techniques to be applied for environmental management. Especially, simple and intermediate techniques such as composting are very useful and easy to apply in community level. It is better to work on those simple and intermediate techniques first, and disseminate good results to other areas.

➤ PONRE : Mr. Nipon Chaisalee

Almost all Thai people knows 3R, but implementation of 3R is not so high as that of Japanese. Japan applies environmental education from primary students, and they have opportunities to visit landfill site to think their environment and living life. Thai also needs to apply environmental education from early child time.

Now it is under difficult situations to construct landfill site or incineration plant due to strong objections from residents around the site. But reduce the amount of wastes can be possible by the community awareness and their cooperation.

➤ Tessaban : Mr. Rungnirum Saardoad

Tessaban is a very player to work on field, and felt big impressions to activities by NPO in Fuji city. We also want to encourage our community people to promote their voluntary activities.

Now waste management is a huge problem for Thai people. Site visit to landfill site reminded us that there is a limitation of the land, and strong cooperation for reducing wastes amount is urgent to be achieved.

4. APPLICATION OF TRAINING EFFECT

The trainees will take main roles to go forward the project at field level, and to strengthen the linkage of central, regional, provincial, and local level in terms of environmental management, they are working to good coordination in environmental administration. Not only among governmental organizations, coordination with private, NPO, and community is also important.

The project can follow up above works through project activities implementation: budgeting based on the plan, implementation the activities from the plan like our pilot project, guideline formulation to raise people's awareness.

5.3. Report of 3rd Japan Training

**Strengthening Environmental Management and Linkages
among Central, Regional, Provincial and Local Levels**

Training by countries :

**Formulate policy and plan for regional environment
management**

November 2015

Oriental Consultants Global Co., Ltd.

1. OUTLINE OF COURSE

1.1 Name of course

(1) Japanese:

(2) English : Japan Training for The Project for Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels

1.2 Training period

From 4th November 2015 to 16th November 2015 (excluding traveling days)

1.3 Number of trainees

The following fifteen (15) trainees participated in the training.

Organization	Name	Position
Office of Natural Resources and Environmental Policy and Planning (ONEP)		
Office of Natural Resources and Environmental Policy and Planning (ONEP)	Mr. Pongboon Pongtong	Deputy Secretary-General
	Mrs. Indhira Euamonlachatt	Environmental Expert
	Ms. Nareerat Panmanee	Chief of Measure Analysis Section
	Mr. Chanwit Thongsamrit	Environmental Professional Level
	Mr. Techawan Pojsompong	Environmental Professional Level
Eighth Regional Environmental Office (REO8)		
Eighth Regional Environmental Office (REO8)	Mrs. Nongluck Prohmsatit	Environmental Senior Professional Level
	Ms. Kullada Ekboonchoo	Environmental Practitioner Level
	Mr. Jakkrit Prosuwan	Environmental Practitioner Level
Provincial Office of Natural Resources Environment (PONRE)		
Ratchaburi PONRE	Ms. Kanokrat Ketchart	Environmental Practitioner Level
Kanchanaburi PONRE	Mr. Noppachai songsiang	Environmental Practitioner Level
Samut Sokran PONRE	Ms. Kwannet Vayuvach	Environmental Practitioner Level
Petchaburi PONRE	Mr. Nuttapong Homchan	Environmental Practitioner Level
Prachuap Khiri Khan PONRE	Mrs. Naowarat Saichoomintr	Environmental Professional Level
Sub District Municipality (SDM)		
Tha Yang SDM	Mr. Supawit Sowjamjit	Chief of Subdivision of Sanitary Works
Pak Tho SDM	Mr. Kitamet Juidee	Community Development Official Professional Level

Note: Mr. Pongboon Pongtong participated only for the first three days, because an emergency occurred in his family forced him to return to Thailand.

1.4 Implementation structure of training

(1) Accepting institution of training

- Japan International Cooperation Agency (JICA) Tokyo International Center
- Supervisor of training (Thai interpretation): Mario KASUYA
- Supervisor of training (Thai interpretation): Naoko TATEISHI
- Supervisor of training (Thai interpretation): Yuriko FUKUSHIMA

(2) Implementer of training

The training was conducted by the JICA Project Team (Oriental Consultants Global Co., Ltd) for the Project of Strengthening Environmental Management and Linkages among Central, Regional, Provincial and Local Levels

2. Contents of Training

2.1 Target of training

The trainees understand the environmental planning process in Japan and environment management mechanisms on the basis of the environmental plan. And they can make use of such acquired information and knowledge for establishment of their own environmental management systems at national, regional, provincial, and local levels in their country. In addition, they can apply the knowledge of public involvement for environmental management in Japan in their country.

2.2 Conceptual diagram of overall training

The conceptual diagram of the overall training is shown in Figure 2.1. The trainees visited the Ministry of Environment, Kanagawa Prefecture, and Fuji City in Shizuoka Prefecture, and Clean Authority of Tokyo. The trainees took lectures on roles and functions of the central, provincial and local levels in environmental planning and management. And they also made a study tour to an incineration plant, a disposal site, and the Environmental Science Center and the Eco-polis Center. The trainees deepened the understanding on their roles and functions in environmental management at each level by sharing what they had learned from the training in Japan on the last two days.

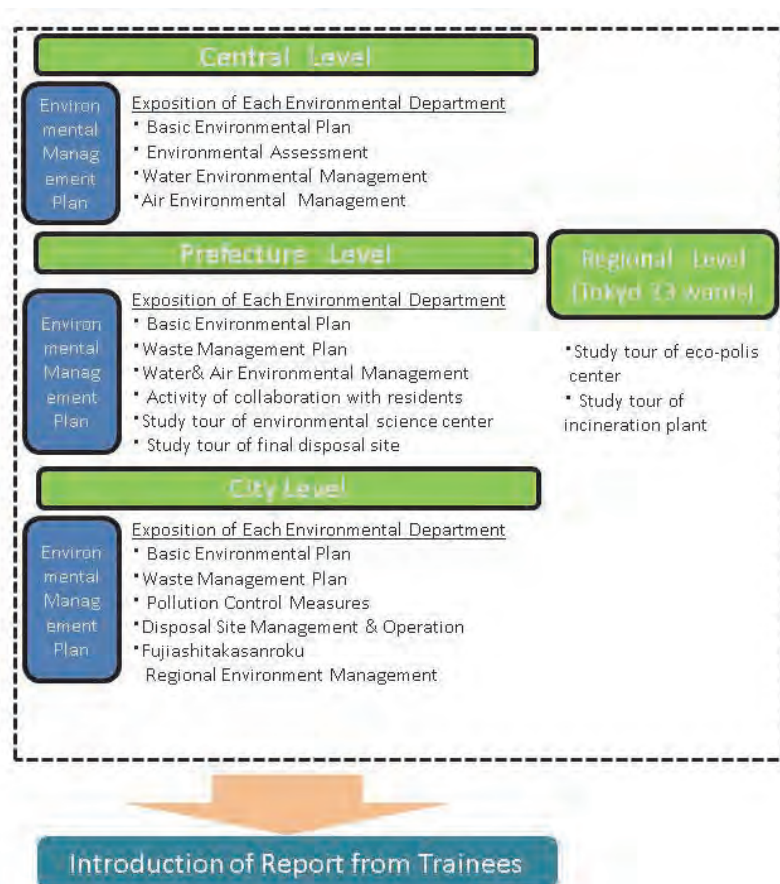


Figure 2.1 Conceptual diagram of overall training

2.3 Schedule and training curriculum

Table 2.1 Calendar of training

Date	Time	Contents	Place
3rd Nov 2015	—	Arrive at Japan	—
4th Nov 2015	10:00 ~ 12:00	Briefing	JICA Tokyo
	12:00 ~ 12:30	Program orientation	JICA Tokyo
	14:00 ~ 16:00	Tokyo Landfill site	Tokyo Landfill site
	16:30 ~ 18:00	Site visit of Odaiba Seaside Park	Odaiba Seaside Park
5th Nov 2015	[Semi-mandarin 1 person +General staff 1person]		—
	10:30 ~ 11:30	Courtesy call to JICA HQ	JICA HQ
	11:30 ~ 13:00	Lunch meeting	Tokyo Green Palace at restaurants
	[General staff 12person]		—
	10:00 ~ 11:30	Waste management role of central government role Promotion of waste reduction and recycling	Ministry of Economy, Trade and Industry
	[All trainees]		—
	13:00 ~ 14:15	Basic Environmental Plan	Ministry of Economy, Trade and Industry
	14:15 ~ 15:15	Environment Assessment	Ministry of Economy, Trade and Industry
	[Semi-mandarin 1 person +General staff 1person]		—
	15:20 ~ 15:40	Courtesy from Ministry of the Environment	Ministry of the Environment
6th Nov 2015	[All trainees]		—
	15:30 ~ 17:00	Water Environmental Management	Ministry of Economy, Trade and Industry
	17:00 ~ 18:00	Air Environmental Management	Ministry of Economy, Trade and Industry
	10:00 ~ 11:30	Incineration plant	Minato Incineration plant
6th Nov 2015	14:00 ~ 16:00	Eco-polis Center	Itabashi Ecopolis Center
	夕方	Diploma awarded(2persons)	Garden Hotel Tokyo
7th Nov 2015	—	Holiday	—
8th Nov 2015	8:20 ~ 12:20	Tokyo Morning Tour	—
9th Nov 2015	9:00 ~ 9:30	Courtesy from deputy mayor	Fuji city office
	9:30 ~ 11:15	Fujishitakasanroku Regional Environment Management	
	13:00 ~ 14:15	Waste Management Plan	
	14:15 ~ 15:00	Water Environmental Management	
	15:00 ~ 15:45	Air Environmental Management	
10th Nov 2015	15:45 ~ 16:00	Questions and answers	
	10:00 ~ 12:00	Final disposal site	Landfill site in Fuji city
	14:10 ~ 15:10	Shiraito Falls	Shiraito Falls
11th Nov 2015	15:30 ~ 15:50	Fujisan Hongu Sengentaisha	Fujisan Hongu Sengentaisha
	10:00 ~ 10:20	Operations overview	Environmental Science Center in Kanagawa
	10:20 ~ 10:50	Research outline	
	11:00 ~ 11:30	Overview of environmental monitoring	
	11:30 ~ 12:00	Questions and answers	
13:00 ~ 15:30	Facility tour • Air monitoring room (13:00~13:20) • Chemical laboratory of LC-MSとICP-MS (13:20~13:50) • Exhaust gas treatment facility (13:50~14:10) • Noise measurement experience (14:10~15:30)		
12th Nov 2015	10:00 ~ 10:15	Greeting, Self-introduction	JICA Yokohama
	10:15 ~ 11:00	Basic Environmental Plan	
	11:00 ~ 12:00	Waste Management Plan	
	13:00 ~ 13:45	Cooperation activities with residents	
	13:45 ~ 14:45	Air Environmental Management	
	15:00 ~ 15:45	Water Environmental Management	
13th Nov 2015	10:00 ~ 12:00	Group session	JICA Tokyo seminar room
	13:00 ~ 16:00	Report Description	
14th Nov 2015	—	Holiday	—
15th Nov 2015	—	Holiday	—
16th Nov 2015	10:00 ~ 11:30	Report Presentation	JICA Tokyo seminar room
	11:30 ~ 12:30	Evaluation Board	
17th Nov 2015	—	Back to Thailand	—

Observation of Training Course

2.4 Study tour of Tokyo Landfill (4th November)

AS improvement of landfill sites is a top priority in Thailand, the trainees visited a landfill site in Tokyo (Central Breakwater Outer Landfill Site – New Sea Surface Disposal Site). Tokyo Metropolis estimates the lifespan of the landfill sites, and is making effort for further reduction and effective use of waste by collaborating with citizens, which impressed the trainees. The trainees also learned that some local governments, to reduce waste amount, switched free garbage collection service to paid service. They also learned that the Japanese have high awareness of environmental protection, thereby the amount of waste generation was reduced by promoting 3Rs (Reduce, Reuse, Recycling) year by year.

2.5 Lecture at the Ministry of the Environment (5th November)

On the second day of the training, a lecture was given at the Ministry of the Environment, on the formulation of an environmental management plan in central government. Also, two of the trainees made a courtesy visit to JICA Tokyo during the rest of the trainees had lectures at the Ministry of the Environment.

(1) JICA Tokyo

Two trainees, one semi-high ranked and one normal ranked, made a courtesy visit to JICA Tokyo.

JICA Tokyo:

- Mr. Yutaka Fukase, Director, Global Environment Department
- Mr. Toru Taguchi, Deputy Director, Global Environment Department

Trainees:

- Mrs. Indhira Euamonlachat, ONEP
- Ms. Narrerat Panmanee, ONEP

Accompany:

- Ms. Naoko TATEISHI, Training supervisor
- Mr. Toshiaki KUDO, Oriental Consultants Global Co., Ltd.
- Ms. Ayumi KOYAMA, Oriental Consultants Global Co., Ltd.

At the meeting at JICA Tokyo, it was confirmed that JICA expected that the activities of the project would be carried out in more cooperative way, to follow up the terminal evaluation results. Thai trainees, in particular, raised a topic of public administration in solid waste management, and then constructive discussions were made on an effective solid waste management system by referring Japanese cases.

(2) Ministry of the Environment (5th November)

The lecture held covered the following topics:

- Roles of the central government in waste management
- Promotion of waste reduction and recycling
- Overview of the Fourth Basic Environmental Plan
- Environmental Impact Assessment in Japan
- Water quality management and framework to prevent water pollution in Japan
- Air quality control in Japan

The trainees took these lectures comparing Japanese environmental management system with those in Thailand, and active discussions were made. In particular, they had asked many questions on how to convey the information about the national environment management plan and environmental impact assessment system to local governments, and the difference among the roles of the central and local governments in environmental management. In addition, because there are no laws on reuse or recycling of resources, like the Japanese law on recycling, the trainees asked about concrete policies pertaining to reuse and recycle of resources. At the lectures on air and water quality management/control, the trainees, taking account of their own situations and utilization in Thailand, asked about practical monitoring methods and numeric targets. During the lectures above, the ranked and normal ranked trainees made a courtesy visit to a counselor, Environmental Policy Bureau, expressed their gratitude for organizing three-time trainings in Japan, and confirmed the possibility of further cooperation in environmental management between Thailand and Japan.

2.6 Study tour of incineration plant and Eco-polis Center (6th November)

On the third day of the training, a study tour of an incineration plant and an environmental educational facility, called “Eco-polis of Center” was conducted.

(1) Incineration plant, Shinagawa City, Tokyo

At the plant, the trainees asked about the cost of construction, operation, and the budget of the facility. Generally, botanical gardens and heated swimming pools are constructed for citizens' benefit when an incineration plant is constructed. The trainees learned about the advantages for neighborhoods after an incineration plant was constructed.

(2) Eco-polis Center, Itabashi City, Tokyo

The center is publicly owned but operated by a private operating company, in which the trainees were interested. They asked about the activity of the cooperating company and financial status. The Eco-polis Center offers visitors opportunities to learn about environment with fun, using audio visual system, card games, and so on. The trainees tried a card game in order to learn the production process of tea and environment load at the Eco-polis Center. They were interested in an educational card game of tea producing

process and its environmental load. As such, they said that the card game should be introduced to Thailand, because the card game is an enjoyable way to learn environment.

2.7 Lecture of local government (9th November to 12th November)

After the lecture from the Ministry of the Environment, the trainees visited a municipality of the province level and city level as follows:

(1) Fuji City (9th November)

- Courtesy to deputy mayor
- Environmental basic plan in Fuji City
- Regional environment management in Fuji Ashitakasanroku
- Waste Management Plan
- Pollution Control

(a) Water contamination and water quality control in Fuji City

(b) Air pollution control

(2) Study tour of final disposal site (10th November)

In Fuji city, lectures and a study tour in environmental planning, environment management were conducted. The study tour was made to a final disposal site. Mount Fuji plays an important role in environmental planning and environment management. Long ago, Mount Fuji was called “garbage mountain”, but the government, NPOs, and volunteers made an effort to clean up Mount Fuji. The trainees were surprised at the story of the improvement of the environmental situation and interested particularly in the environmental management activities lead by the city.

The trainees were also interested in cardboard composting for households which was invented by the city. A third of the cost of cardboard composting is paid by residents, and the rest two thirds by the city. Learning this fact, the trainees said surprisingly that in Thailand if residents have to pay for some of the cost for the cardboard compost, they would not do composting.

Presently, solid waste management is a priority to be addressed in Thailand, especially the improvement of final disposal sites. The trainees asked a lot of questions when they went on a study tour to the disposal site. Fuji City has instituted measures to prevent polluted water. Trainees were struck by this high management. When Fuji City constructed the final disposal sites, they had meeting with the residents many times and explained persistently to them that the city would take a stringent measure to prevent underground water contamination in order to acquire their consensus. As Thailand also confronts the same situation, the trainees felt the importance of dialogue and communication with citizens.

(3) Environmental Science Center (11th November)

- Outline of the Center

- Air Quality Monitoring System
- Facility tour
 - Air monitoring room
 - Water Quality Test: Chemical laboratory of LC-MS and ICP-MS
 - Exhaust gas treatment facility
 - Noise measurement

(4) Kanagawa Prefecture (12th November)

- Measures for Environmental Management Policies
- Roles of prefectural government in waste management
- Cooperation and coordination with residents
- Roles of prefectural government in air quality management
- Roles of prefectural government in water quality management

The trainees were interested in the monitoring system when they visited the Environmental Science Center. They were surprised to find that bylaws of Kanagawa prefecture are sometimes stricter than national laws, because local governments in Japan have independent authority to make bylaws according to the local condition, following the higher plans like the national environmental plan. They learned the difference of the government system between Thailand and Japan.

Regarding the lecture of the Kanagawa Coastal Environmental Foundation, the trainees asked about how to create and operate an environment management system which volunteers easily can take part in.

2.8 Workshop, Discussion, and Presentation (13th November)

(1) Workshop : To share the knowledge the trainees learned from the training

- Venue : JICA Tokyo
- Date and time : 13th November, 10:00~16:00

A workshop was conducted for sharing knowledge the trainees learned during the training in Japan, in order to apply them to their work in Thailand. The facilitator and participant are as follows:

Facilitator

Oriental Consultants Global, Co., Ltd.	Ayumi KOYAMA
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Trainees

Organization	Name	Position
Office of Natural Resources and Environmental Policy and Planning (ONEP)		
Office of Natural Resources and Environmental Policy and Planning (ONEP)	Mr. Chanwit Thongsamrit	Environmental Professional Level
	Mr. Techawan Pojsompong	Environmental Professional Level

Eighth Regional Environmental Office (REO8)		
Eighth Regional Environmental Office (REO8)	Mrs. Nongluck Prohmsatit	Environmentalist Senior Professional Level
	Ms. Kullada Ekboonchoo	Environmentalist Practitioner Level
	Mr. Jakkrit Prosuwan	Environmentalist Practitioner Level
Provincial Office of Natural Resources Environment (PONRE)		
Ratchaburi PONRE	Ms. Kanokrat Ketchart	Environmentalist Practitioner Level
Kanchanaburi PONRE	Mr. Noppachai songsiang	Environmentalist Practitioner Level
Samut Songkran PONRE	Ms. Kwannet Vayuvach	Environmentalist Practitioner Level
Petchaburi PONRE	Mr. Nuttapong Homchan	Environmentalist Practitioner Level
Prachuap Khiri Khan PONRE	Mrs. Naowarat Saichoomintr	Environmentalist Professional Level
Subdistrict-municipality (Tessaban)		
Tessaban Tha Yang	Mr. Supawit Sowjamjit	Chief of Subdivision of Sanitary Works
Tessaban Pak Tho	Mr. Kitamet Juidee	Community Development Official Professional Level

Accompanied participants

Supervisor of training	Mario KASUYA
Supervisor of training	Yuriko FUKUSHIMA
Oriental Consultants Global, Co., Ltd.	Toshikazu HIWAKI
Translator (English・Thai)	Phermsak Lilakul

1) Individual presentations

The trainees selected one photo of the strongest memory from the Japanese training. Contents of the presentation are as follows:

- The contents of photo and shooting date, time and place
- Reason of choosing the photo
- Description of the photo to those who visited Japan for the first time

Table 2.2 Contents of the individual presentation

Photo	Shooting Date	Shooting Place	Affiliation	Name	The contents of presentation
Compost for households	2015/11/9	Fuji City	ONEP	Mr. Chanwit Thongsamrit	Thailand also adopts composting, but cardboard composting for households is a new idea. If we don't have enough space to compost in the yard, cardboard compost can be used in this situation. I would like to introduce cardboard compost to Thailand.
Environment learning tool (Tree object)	2015/11/6	Eco-polis Center	ONEP	Mr. Techawan Pojsompong	I learned about the water cycle circulation from the tree object at Eco-polis Center. The object is suitable to learn environment topics for children
Method for the utilization of final disposal site	-	-	REO8	Mr. Jakkrit Prosuwan	Generally, neighborhood citizen are against plans to construct a final disposal site. However, I learned that when the disposal site ends its roles, it can be used for other uses like a golf field, theme park and so on. It is important that we think the method for the utilization of a final disposal site after it is closed.
Environment learning tool (Card game)	2015/11/6	Eco-polis Center	REO8	Mrs. Nongluck Prohmsatit	The card game as environment learning tool can teach the process of PET bottle beverage production and its environmental load. The material also can teach about how environment is polluted. Therefore, playing the game can promote environmental protection awareness of those who play the game.
Tokyo Station	2015/11/10	Tokyo Station	REO8	Ms. Kullada Ekboonchoo	I was deeply impressed that Japanese are well disciplined and keep order. Even if a train station is crowded, they wait in a line. It is very good experience that I could learn Japanese culture.
Environmental protection and economic activity	2015/11/9	Fuji City	Kanchanaburi PONRE	Mr. Noppachai songsiang	The government of Fuji City undertakes the environmental protection. On the other hand, Fuji City conducted economic activities such as paper mills. I could learn current situation in Fuji. Keeping the balance between environmental protection and economic activity is important.
Garbage can	2015/11/5	Ministry of the Environment	Petchaburi PONRE	Mr. Nuttapong Homchan	Several garbage cans are set to separate garbage (PET bottles, plastic, cans, etc.). That is very useful for the efficient use of resources. It is necessary to develop the habit of thinking about waste separation in Thailand.
Garbage Handbook	2015/11/11	Provided material of Kanagawa Coastal Environmental Foundation	Prachuap Khiri Khan PONRE	Mrs. Naowarat Saichoomintr	The most memorable experience of the training is the lecture of the Kanagawa Coastal Environmental Foundation. The activity of environmental protection needs community participation. Therefore when I go back to Thailand, I would like to promote the activity of community participation.
Solar thermal collection of machine	2015/11/6	Eco-polis Center	Ratchaburi PONRE	Ms. Kanokrat Ketchart	Solar thermal collection machines can make efficient use of natural energy. I would like to introduce this technology to the north of Thailand such as Chiang Mai, because the areas need hot water.
Final disposal site	2015/11/4	Final disposal site	Samut Songkran PONRE	Ms. Kwannet Vayuvach	The landfill site in Tokyo was constructed on the sea. I was impressed with the high technology of Japanese construction. Also, Tokyo makes efficient use of land due to its densely populated district.
Incineration plant	2015/11/6	Incineration plant	Tessaban Pak Tho	Mr. Kitamet Juidee	I was impressed that the burning capacity of the incineration plant is such a high level. I would like to introduce a high level incineration plant to Thailand in the future.
Monitoring equipment of water leakage	2015/11/10	Final disposal site in Fuji City	Tessaban Tha Yang	Mr. Supawit Sowjamjit	The monitoring equipment of water leakage is useful, because the equipment can keep watch 24 hours. I would like to introduce the equipment to Thailand in the future.

2) Group work

The trainees enumerated the good points of the national, regional, prefecture and city levels. They also discussed difficult points of implementation to Thailand. The results of the group work are shown in Figure 2.2.

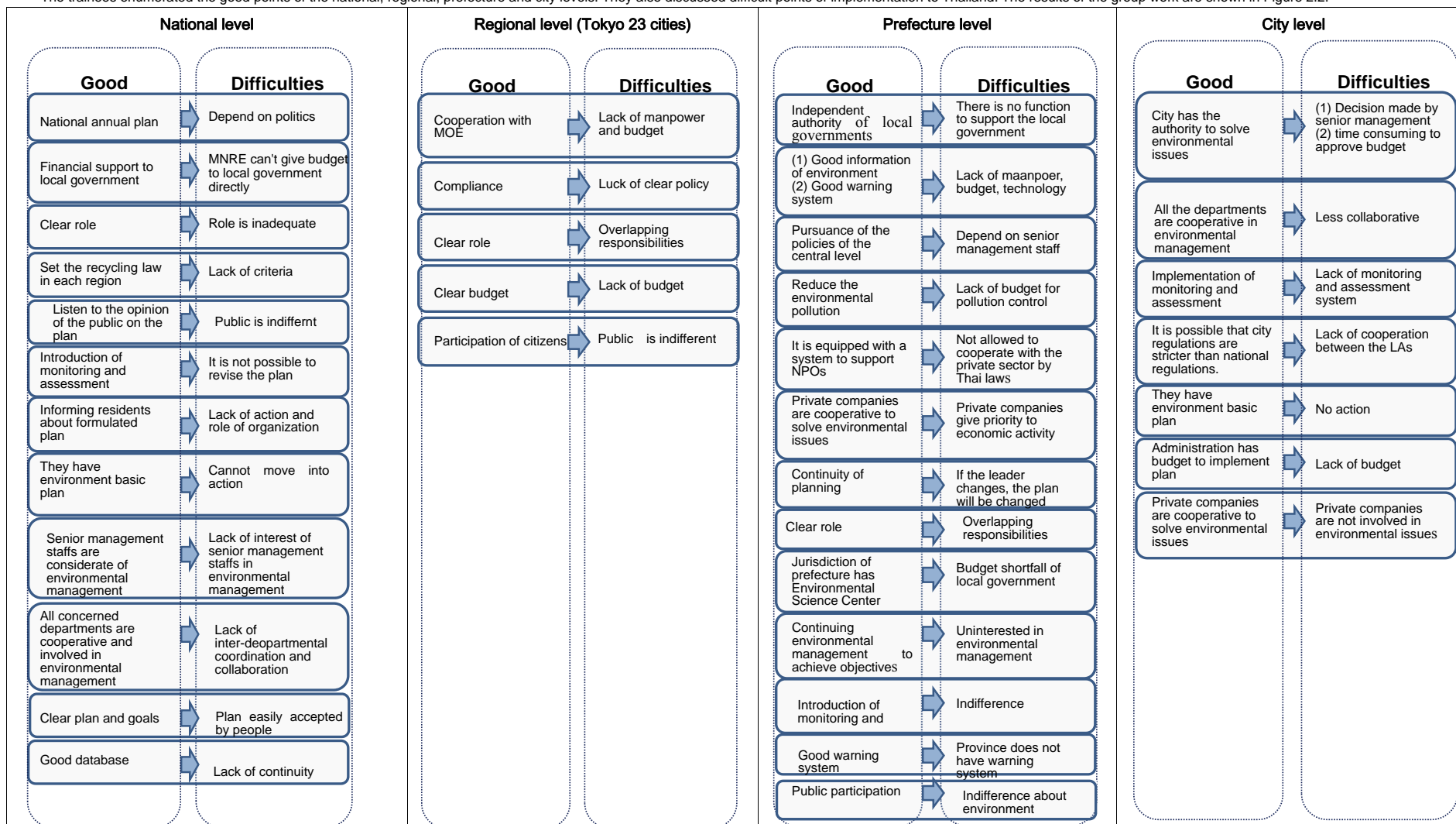


Figure 2.2 Results of Group Workshop

(2) Evaluation conference (13th November)

The last day of the training in Japan was an evaluation conference conducted at JICA Tokyo.
Participants were as follows:

Participant from JICA

Global Environment Department	Mr. Toru TAGUCHI
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Member of trainees

Organization	Name	Position
Office of Natural Resources and Environmental Policy and Planning (ONEP)		
Office of Natural Resources and Environmental Policy and Planning (ONEP)	Mr. Chanwit Thongsamrit	Environmental Professional Level
	Mr. Techawan Pojsompong	Environmental Professional Level
Eighth Regional Environmental Office (REO8)		
Eighth Regional Environmental Office (REO8)	Mrs. Nongluck Prohmsatit	Environmental Senior Professional Level
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Subdistrict-municipality (Tessaban)		
Tessaban Tha Yang	Mr. Supawit Sowjamjit	Chief of Subdivision of Sanitary Works
Tessaban Pak Tho	Mr. Kitamet Juidee	Community Development Official Professional Level

Accompanied persons

Supervisor of training	Mario KASUYA
Supervisor of training	Naoko TATEISHI
Oriental Consultants Global Co., Ltd.	Ayumi KOYAMA
Oriental Consultants Global Co., Ltd.	Toshikazu HIWAKI

The trainees made a presentation about what they learned from the training in Japan.

<ONEP : Mr. Chanwit Thongsamrit>

I learned evaluation methods at the national, prefecture, and city levels.

Regarding practical things, I was impressed that I experienced garbage separation and composting at households. I have extended my knowledge on environment, and also I learned about the Japanese diligence. I would like to pass down the knowledge to Thai people in the future.

<ONEP : Mr. Techawan Pojsompong>

Japan society manages both urban development and environmental protection.

Tokyo makes effective use of land, because Tokyo has limited land due to its dense population. It was impressive that the landfill site is constructed on the sea. I feel that Japanese are so disciplined that it affects their attitude of garbage separation. ONEP is making an environmental basic plan now. Governments in Japan have clear targets when they make environmental basic plans, which I will introduce in Thailand.

<REO8 : Mrs. Nongluck Prohmsatit>

Various departments of governments in Japan work together to prevent pollution. It was impressive that participation of volunteers for environmental protection is not only adults but also children. The materials of environmental education at Eco-polis Center are effective for children to study environmental issues. I will introduce the materials to my co-workers and people in Thailand.

<REO8 : Ms. Kullada Ekboonchoo>

I have learned that environmental bylaws of prefecture and city levels sometimes can be stricter than national laws. I also have learned that each municipality has independent authority, and governments provide information of environmental management to national people for understanding their roles. I would like to coordinate and cooperate with various related organizations including the private sector to solve pollution problems when I return to Thailand.

<REO8 : Mr. Jakkrit Prosuwan>

Accumulation of information is necessary for solving pollution problems. I will improve insufficient environment information database in Thailand. Regarding environmental management in Japan, I found that waste separation is conducted in every train station. I will begin with doing waste separation myself when I go back to Thailand.

<Ratchaburi PONRE : Ms. Kanokrat Ketchart>

Governments in Japan have independent authority. And their roles are clear. Thailand should emulate the point. To begin with, Thailand needs to engage in educational and awareness raising activities on environmental protection; especially, waste management is important. To begin with, I will promote waste separation to Thai people. In addition, if I have a chance, I would like to use the environmental educational materials which we have learned at Eco-polis Center for children's education in Thailand.

<Kanchanaburi PONRE : Mr. Noppachai songsiang>

Governments in Japan keep implementing projects to archive the objectives of environmental plans. From this, I have learned the importance of continuity. Making database and sorting out information of environmental management is also important. When I go back to Thailand, I will collect information of environmental management and sort them out at our office, and secure to play our roles to formulate environmental plans taking account of the environmental issues of administrative jurisdictions.

<Samut Songkran PONRE : Ms. Kwannet Vayuvach>

I have learned that governments in Japan are delegated authority. Therefore, they can make environmental plans according to their own regional situations. Accumulation of data is necessary to grasp the situation of pollution in the region. I will introduce the monitoring system to Thailand. The governments of Japan work together with private companies to undertake tasks for environmental protection. Thailand also should strengthen collaboration with private sector.

<Petchaburi PONRE : Mr. Nuttapong Homchan>

In Japan, waste is separated thoroughly while in Thai people do not do very much. Government officers in Thailand should start waste separation themselves to become a model for the people. And also I have learned that because clear division of roles of government officers is important to make an environmental basic plan, I have found it necessary to arrange many occasions so that concerned agencies can exchange views and opinions.

<Prachuap Khiri Khan PONRE : Mrs. Naowarat Saichoomintr>

Regarding the lecture of Kanagawa Prefecture, the alarm system was developed to alarm the residents when the air quality level comes to alarming level. I will follow this good example in Thailand.

I was impressed by the lecture of the Kanagawa Coastal Environmental Foundation that explained about an organization centered by the private sector undertook waste collection. I think that in Thailand the private sector should be involved for public awareness raising

activities to protect environment. In particular, I will make long-lasting efforts to make younger people aware of importance of environmental protection.

<Tessaban Tha Yang : Mr. Supawit Sowjamjit>

I have learned that roles of the governments in Japan are clear and that the Japanese have a cooperative behavior to protect the environment. I think Japanese are highly environmentally aware due to environmental education from childhood. I was also impressed by the monitoring system of air and water quality. I will introduce the Japanese environmental management approach and skills to Thai people.

<Tessaban Pak Tho : Mr. Kitamet Juidee>

I have learned about the technology of waste treatment and high incineration capacity from visits to incineration plants. From lectures at local governments in Japan, I have learned that they have independent authorities and clear roles. I will conduct a questionnaire survey to identify the roles of municipalities in Thailand. I will also discuss with the senior officials of our office on the way to reflect public opinions in an ordinance of the municipality when I go back to Thailand.

2.9 Training period and arrangements detail

The third training session in Japan had more study tours than the second training held in June 2015, because most of the participants are at a practical level. The study tour of Eco-polis Center received a favorable review because the Center offers environmental education to children, which the trainees think are very useful in education to children in Thailand.

In the third training, the trainees also visited Shiraito Falls and Fujisan Hongu Sengen Taisha to learn Japanese culture and traditions.

Regarding the lecture, the trainees requested to secure more time for Q&A.

2.10 Materials and facilities

The training materials had been translated into the Thai language in advance. Trainings were held at meeting or seminar rooms at the organizations which kindly accepted the training. The training was conducted effectively without any trouble.

3. Trainees

3.1 Eligibility requirements

The objective of the training is to understand environmental plan of the national level, prefecture level, and city level in Japan.

The trainees are as follows:

- Semi-high ranked government official: three persons
- Practical level: twelve persons.

The third training in Japan visited the following places:

- Environmental Science Center
- Eco-polis Center
- Incineration plant
- Final disposal site

3.2 Motivation and learning attitude of trainees

The trainees were positive to learn from the lectures and study tours to learn as much as possible. They asked a lot of questions to lecturers.

4. Utilization of training effect

4.1 Achievement from training

Trainees were impressed about how high the Japanese were environmentally aware. They learned that the government undertakes the task with private companies and NPOs to protect the environment, and Japanese society can learn environmental education from childhood. It is important that the implementation of environmental management needs public involvement.

Japanese governments have independent authority, and their role are clear. Trainees learned that each government in Thailand should have a clear role to make environmental policies. It was a great achievement that trainees learned these points.

4.2 Utilization of achievement

The trainees are expected to make use of this training experience, take the leadership in implementing projects and make efforts to strengthen linkages among the central, regional, provincial, and local levels. And also they will need to work to enhance the collaboration with the concerned parties such as the private sector, NPOs, and citizens in environmental management.

The JICA project will conduct a follow-up of their activities such as securing budget for environmental management plan, implantation of the project the pilot projects, preparing public awareness guidelines and so on.

5. Training environment

During the training, the weather was largely good, though a few days in early November 2015 were rainy and chilly.