

**Technical cooperation on
The Development of Basic Schemes for PRTR
System in the Kingdom of Thailand**

Progress Report No. 6

March 2014

**Pollution Control Department, MONRE
Department of Industrial Works, MOI
Industrial Estate Authority of Thailand, MOI
Japan International Cooperation Agency**

Abbreviation

AIT	Asian Institute of Technology
AQNMB	Air Quality and Noise Management Bureau (PCD)
CMR	Carcinogenicity, Mutagenicity, Reproductive Toxicity
CRJA	Chonburi Rayong Japanese Association
C/P	Counterpart Personnel
DG	Director-General
DDG	Deputy Director-General
DEQP	Department of Environmental Quality Promotion
DOA	Department of Agriculture
DIW	Department of Industrial Works
DLA	Department of Local Administration (Ministry of Interior)
EARTH	Ecological Alert and Remediation for Thailand (NGO)
ECNEQ	Enhancement and Conservation of National Environmental Quality Act
EF	Emission Factor
ERTC	Environmental Research and Training Center
ESIE	Eastern Seaboard Industrial Estate (Rayong)
EQLD	Environmental Quality and Laboratory Division (PCD)
FTI	Federation of Thai Industry
GDP	Gross Domestic Product
GSEI	Good Governance for Sustainable Environment Institute (NGO)
GPP	Green Partnership Program
HAPs	Hazardous Air Pollutants
HSB	Hazardous Substances Bureau (DIW)
IET	Institute of Environmental Training
IEAT	Industrial Estate Authority of Thailand
IRIS	Integrated Risk Information System (US EPA)
ITD	IT Division (PCD, DIW)
IWETB	Industrial Water and Environmental Technology Bureau (DIW)
JCC	Joint Coordination Committee
JpCC	Japanese Chamber of Commerce
JICA	Japan International Cooperation Agency
M/M	Man/Month
MONRE	Ministry of Natural Resources and Environment
MOI	Ministry of Industry
MOT	Ministry of Transport
MOA	Ministry of Agriculture
MSDS	Material Safety Data Sheet
NEB	National Environmental Board
NESDB	National Economic and Social Development Board
ONEP	Office of the Natural Resources and Environmental Policy and Planning
OTP	Office of Traffic and Transport Policy and Planning
PCC	Pollution Control Committee
PCD	Pollution Control Department
PDM	Project Design Matrix
PRTR	Pollutant Release and Transfer Register
PSB/MOPH	Policy and Strategy Bureau/Ministry of Public Health
R/D	Record of Discussion
SAICM	Strategic Approach for International Chemical Management
TEI	Thailand Environment Institute (NGO)
TF	Task Force
TAIA	Thai Automotive Industry Association
TAPMA	Thai Autoparts Manufacturers Association
TCPA	Thai Crop Protection Association
TPMA	Thai Paint Manufacturer's Association
UNEP	United Nations Environment Program
US EPA	United States Environmental Protection Agency

VOCs	Volatile Organic Compounds
WHO	World Health Organization
WHSMB	Waste and Hazardous Substances Management Bureau (PCD)
WQMB	Water Quality Management Bureau (PCD)

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	• Summary of pesticide survey	
	• Summary of industrial database and online system development	
	• Summary of non point industry source survey	
	• Summary of hospital, school and household survey	
	• Manual to Estimate Emissions from the Use of Paints at Non-Point Source (final draft)	
	• Manual to Estimate Emissions from the Use of Marine Coatings at Factories (final draft)	
	• Draft pilot implementation plan for risk communication	
	• Pilot project Implementation 3 rd Progress report	
	• Point source consultation report	
3.	Report of the study tour to Japan	
4.	Meeting/Visit/workshop memo	
5.	JICA PRTR website and newsletter	

1. General

1.1. Project Outline

- **Title of the project**

The Development of Basic Schemes for PRTR System in Kingdom of Thailand

- **Overall Goal**

Model of PRTR system for Thailand is established

- **Project Purpose**

Capacity of PCD, DIW and IEAT's staff for implementation of PRTR pilot project is strengthened

- **Project period**

4 years (March 6th, 2011 – March 5th, 2015)

- **Implementing agency**

Pollution Control Department, Ministry of Natural Resources and Environment
Department of Industrial Works, Ministry of Industry
Industrial Estate Authority of Thailand, Ministry of Industry

- **Outputs**

(Output 6 noted below was approved at Joint Coordination Committee meeting held on July 12, 2013.)

1. Basic design of PRTR system in Thailand is established
2. Emission reporting scheme of industry is developed
3. Capacity of estimation of emission and transfer for point source is strengthened.
4. Capacity of emission estimation for non point source is strengthened.
5. Importance of use of PRTR data including initial assessment is understood
6. Implementation structure of risk communication is developed in the pilot area.

- **Activities of the Project**

(Activity of the project noted below was approved at Joint Coordination Committee meeting held on July 12, 2013.)

Activity for output 1

- 1-1. Formulation of basic strategy
- 1-2. Organizational set up inside government and with other stakeholders
- 1-3. Development of project work plan
- 1-4. Development of criteria for target substance selection
- 1-5. Draft target substance list and revision
- 1-6. Draft basic design of PRTR system
- 1-7. Development of PRTR database and Web site

- 1-8. Draft pilot project implementation plan and set up organization
- 1-9. Organizing awareness raising and training workshop for pilot project
- 1-10. Collection of data and disclosure for pilot project
- 1-11. Organizing risk communication meeting for pilot project
- 1-12. Obtaining feedback from stakeholders for pilot project
- 1-13. Final design of PRTR system and prepare action plan
- 1-14. Preparation of final report of output 1

Activity for output 2

- 2-1. Collection of available data for preparing point source definition
- 2-2. Development of point source definition (reporting thresholds)
- 2-3. Development of reporting form
- 2-4. Identifying reporting procedure from point sources
- 2-5. Listing of candidate point sources and sending reporting form to them
- 2-6. Collecting reports from point sources
- 2-7. Verification of point source data
- 2-8. Compilation of point source data
- 2-9. Revision of point source definition and reporting form
- 2-10. Preparation of final report of output 2

Activity for output 3

- 3-1. Establishment of task forces on development of release estimation manuals for specific industries
- 3-2. Development of draft release estimation manuals for specific industries
- 3-3. Conducting model studies for industries for which release estimation manuals are not prepared
- 3-4. Organizing workshop on point source release estimation for governmental officials and relevant agencies
- 3-5. Organizing workshop on point source release estimation for factories/facilities
- 3-6. Organizing consultation for factories/facilities to estimate releases by site visit
- 3-7. Responding to questions (via phone, e-mail) on release estimation from factories/facilities and preparing FAQs
- 3-8. Revision of release estimation manuals for specific industries
- 3-9. Preparation of final report of output 3

Activity for output 4

- 4-1. Establishment of basic idea for estimation of emissions from non-point sources (NPS)
- 4-2. Survey of availability of activity data and emission factors (EFs) necessary to estimate
- 4-3. Selection of target categories and target chemicals for NPS and responsible bodies to estimate
- 4-4. Validation of data used for estimation; activity data and EF

- 4-5. Establishment of estimation method in each target category
- 4-6. Preparation for drafts of estimation manuals
- 4-7. Collection such data used for estimation as activity data and EF
- 4-8. Estimation of emission amounts from NPS at pilot project area and Compilation of disclosed data
- 4-9. Collection of information, data necessary for revising estimation manuals and revision of estimation manuals
- 4-10. Implementation of workshop for estimation of emissions from non-point sources for government officials and relevant agencies
- 4-11. Preparation of final report of output 4

Activity for output 5

- 5-1. Introduction of domestic and overseas case studies on use of PRTR data including initial assessment of exposure risk to target substances
- 5-2. Utilization and possible development of model or tools for uses of PRTR data e.g. concentration estimating model
- 5-3. Implementation of case studies for use of PRTR data including initial assessment
- 5-4. Training for use of PRTR data including initial assessment for both government and private sectors
- 5-5. Preparation of final report of output 5

Activity for output 6

- 6-1. Development of basic strategy for promoting risk communication
- 6-2. Organizational set up inside government and with other stakeholders for promoting risk communication
- 6-3. Awareness raisings for risk communication importance for relevant agencies, relevant local governments and participating companies.
- 6-4. Development of training curriculum for facilitator and pilot project implementation of training course
- 6-5. Review of facilitator training course and follow-up for trainee
- 6-6. Development of the Handbook for risk communication
- 6-7. Planning the registration system of chemical advisor for supporting risk communication.
- 6-8. Development of the implementation plan, and pilot project organization of risk communication meeting with community people of Rayong
- 6-9. Preparation of final report of output 6

● **Project area**

Major activities of the project will be at Bangkok and surrounding area where the office of the implementing agencies are located. In addition, activities will be at area selected for pilot project.

1.2. Project work plan for 4 years (Activities indicated by **bold underline** are on-going or completed as of March 2014)

Year	2011	2012	2013	2014
Major work	<ul style="list-style-type: none"> • <u>Capacity assessment</u> 	<ul style="list-style-type: none"> • <u>Capacity assessment</u> 	<ul style="list-style-type: none"> • <u>Capacity assessment</u> 	<ul style="list-style-type: none"> • Capacity assessment
Output 1	<ul style="list-style-type: none"> • <u>Clarification on organizational matters, policy priority</u> • <u>Designing the element of basic PRTR system</u> • <u>Basic survey and listing of target chemical substances</u> • <u>Preparation for pilot project</u> 	<ul style="list-style-type: none"> • <u>PRTR design paper (draft) will be prepared.</u> • <u>Preparation for pilot project action plan</u> 	<ul style="list-style-type: none"> • <u>Designing the element of basic PRTR system.</u> • <u>Implementation of pilot project</u> 	<ul style="list-style-type: none"> • Compilation of the pilot project data • Implement questionnaire survey • Design of PRTR system for nationwide application
Output 2	<ul style="list-style-type: none"> • <u>Selection of target business and size</u> • <u>Review of existing reporting system</u> • <u>Design of PRTR reporting system.</u> 	<ul style="list-style-type: none"> • <u>Design of PRTR reporting system</u> 	<ul style="list-style-type: none"> • <u>Direct support to industry for PRTR reporting</u> • <u>Verification, compilation of reported data</u> 	<ul style="list-style-type: none"> • Disclosure of PRTR data from pilot project • Design of reporting system and format for nationwide PRTR system
Output 3	<ul style="list-style-type: none"> • <u>Preparation of industry specific emission estimation manual from point source</u> 	<ul style="list-style-type: none"> • <u>Preparation of industry specific emission estimation manual from point source. Draft manual will be prepared in English and then translated to Thai.</u> 	<ul style="list-style-type: none"> • <u>Continue Preparation of industry specific emission estimation manual from point source. Draft manual will be prepared in English and then translated to Thai.</u> 	<ul style="list-style-type: none"> • Revision of manual for point source estimation
Output 4	<ul style="list-style-type: none"> • <u>Selection of target business and activity</u> • <u>Advice on emission factor experiment</u> • <u>Preparation of emission estimation manual from non-point source</u> 	<ul style="list-style-type: none"> • <u>Advice on emission factor experiment</u> • <u>Preparation of emission estimation method from non-point source. Draft method document will be</u> 	<ul style="list-style-type: none"> • <u>Implement pilot project</u> • <u>Estimate emission from non point source in pilot project area (Including mobile source and</u> 	<ul style="list-style-type: none"> • Revision of manual for non point source estimation

		<u>prepared.</u>	<u>pesticide).</u> • <u>Preparation of emission estimation manual from non-point source.</u> <u>Revise manual</u>	
Output 5		• <u>Preparation of case study of PRTR data utilization</u>		• Preparation of case study of PRTR data utilization • Application of models and tools for PRTR data utilization
Output 6	<ul style="list-style-type: none"> • <u>Review of current situation and design of human resource development</u> • <u>Planning and development of risk communication training course</u> 	• <u>Organization of training course for risk communication</u>	• <u>Support for training of risk communication</u>	• Support for training of risk communication
Training (study visit)		<u>Training in Japan (study visit)</u>	<u>Training in Japan(study visit)</u>	
Evaluation		<u>Mid-term review</u>		Final evaluation
Seminar/Workshop	<ul style="list-style-type: none"> • <u>JCC</u> • <u>1st PRTR seminar</u> 	<ul style="list-style-type: none"> • <u>JCC</u> • <u>2nd PRTR seminar</u> • <u>Seminar for PRTR awareness raising to industry</u> 	<ul style="list-style-type: none"> • <u>JCC</u> • <u>3rd PRTR seminar</u> • <u>Point source estimation workshop for government officer</u> • <u>Point source estimation workshop for industries</u> 	<ul style="list-style-type: none"> • JCC • 4th PRTR seminar • Point source estimation workshop for industries • Non point source estimation workshop • PRTR data utilization & risk communication workshop
Sub-contract	<ul style="list-style-type: none"> • <u>Basic survey for chemical substance</u> • <u>PRTR Web site development</u> 	<u>Data availability survey for non point source</u>	<u>Direct factory support for pilot project</u> <u>Traffic survey in Rayong</u>	Questionnaire survey

1.3. Input and Plan for 2013

Item	1st Qtr			2nd Qtr			3rd Qtr			4th Qtr		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1 Expert												
(1) Long-term Expert (0名)												
(2) Short-term Expert (5名)												
① Leader / PRTR System / Chemical Management / Non-point Source Estimation 3 (Mr. Fukuda)	5/7 5/8 5/15 6/18	7/2	(8/16)	9/17	10/17	11/7	1/15	2/19	(4/12)			
② Sub-Leader / Point Source Reporting / Point Source Estimation / Non-point Source Estimation 2 (Mr. Takahashi)	5/12 6/8	7/23	9/21							2/9	(3/11)	
③ Non-point Source Estimation 1 (Mr. Shirane)	6/5	7/4					10/9	12/5		1/28	2/12	2/23 (4/12)
④ Social Consideration / Risk Communication (Mr. Tezuka)	5/19 6/8		8/4	9/7	9/22	10/19					16	49
⑤ Social Consideration / Risk Communication 2 (Mr. Nakamura)							10/28~31					
⑥ Arrangement for training in Japan (Mr. Fukuda)							10/21~25	11/1,5,6				
2 Training(Japan)												
①study of PRTR implementation in Japan												
3 Equipment												
4 Local Consultant												
Traffic survey in Rayong												
Estimation support for industry												
Questionnaire feed back survey												
5. Others												
JCC				▲								
Seminar					▲							
Review												
Discussion of next year plan												▲

* Period covered by this progress report is indicated by the rectangular box in dotted line.

Input of the JICA side is as follows.

- For the period of this progress report
 - Expert assignment was shown in following table.

Expert	Assignment period
Munehiro Fukuda	10/1 – 10/17/ 013 11/7/2013 – 1/15/ 2014 2/19 – 3/31/2014
Makoto Takahashi	2/9 – 3/11/2014
Yoshiharu Shirane	10/9 – 12/5/2013 1/28 – 2/12/2014 2/23 – 3/31/2014
Kazuhiko Tezuka	10/1 – 10/19/2013

- Organization of number of seminar/workshops
 - Implement study tour to Japan (as attached report)
 - Sub-contract for traffic survey in Rayong
 - Sub-contract for direct consultants support to point sources.
- Plan for next six months
 - Continue the expert assignment. Approx. 9M/M is expected in (April -September).
 - Support point source for estimation and reporting
 - Receive, validate and compile point source data
 - Estimate and compile non point source data
 - Preparation of risk communication hand book and follow up training
 - JICA final evaluation

2. Summary of progress (overall)

2.1. Summary sheet

Summary	<p>Various works to prepare for the estimation in pilot PRTR were carried out. Sub-contracted work for Pesticide/Agriculture survey under PCD, for non-point industry survey and database development under DIW, and hospital/school/household survey under IEAT were completed. Industrial survey for 5 categories (wood/furniture, metal, electric machinery, plastic, rubber) under IEAT, Rayong traffic survey under JICA team are still on-going.</p> <p>Official request letter and report form were sent out to all the concerned facilities in Rayong Province with support letter of Rayong Governor. Several workshops for point sources were organized to provide detail of estimation and reporting. Then individual consultation or on-site coach for point source was provided.</p> <p>Japanese study tour was implemented with 31 participants including private sector.</p>
Major Activity	<ul style="list-style-type: none"> ● Study tour to Japan in October 22nd – Nov. 2nd, 2013 ● PRTR seminar by Japanese Chamber of Commerce was held on Oct. 12th, 2013. ● Series of consultation meeting was held with relevant FTI clubs requesting collaboration on pilot. ● Sub-contracted work by PCD for pesticide/agriculture survey completed. ● Sub-contracted work by DIW for industrial database and online report system as well as survey for non-point industrial source completed. ● Sub-contracted work by IEAT for hospital/school/household completed. ● Sub-contracted work by IEAT for model survey in 5 category industry (wood/furniture, metal, electrical machinery, plastic, rubber) was started and on-going. ● Sub-contracted work by JICA team for direct consulting support for 5 category industry was started and on-going. ● Sub-contracted work by JICA team for Rayong traffic data survey was started and on-going. ● On-site coaching visit to point source was provided by JICA expert and C/P.
Major Paper/report prepared	<ul style="list-style-type: none"> ● Draft pilot implementation plan for risk communication ● Consultation report for point source ● Updated pilot project progress report No.3. ● Progress Report No.6
Plan	<ul style="list-style-type: none"> ● Continue point source support, receive and validate the report. ● Start estimation of non point source data. ● Start compiling the data. ● Prepare for data disclosure and risk communication

2.2. Organization structure

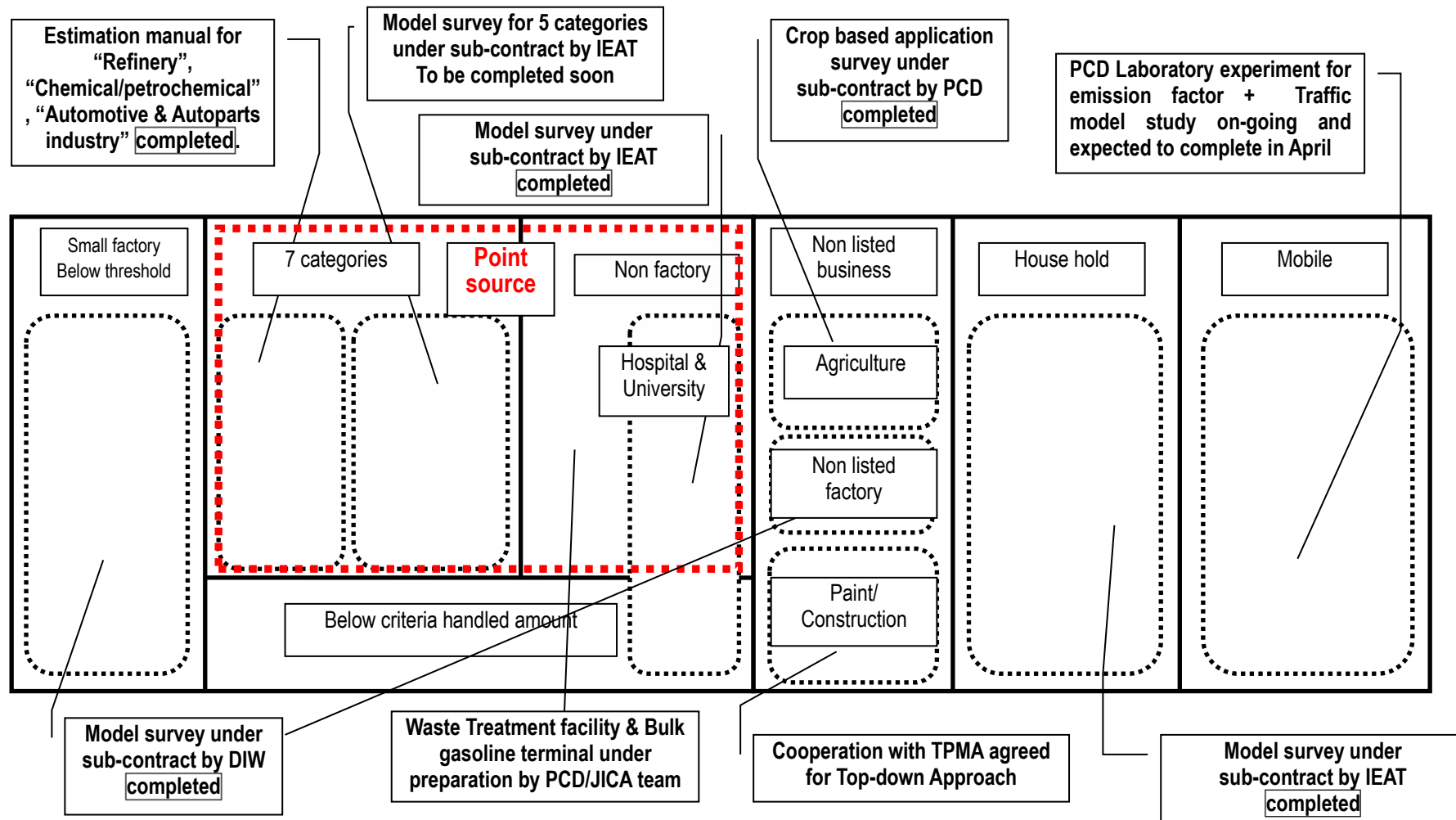
Diagrams in next pages show organization structure of the project and the relationship with various stakeholders as of March 2014. There was no major change in the structure during last 6 months

Separate diagrams were prepared to show the structure and current situation of point source activity as well as non point source activity. There is no major change in the implementation structures.

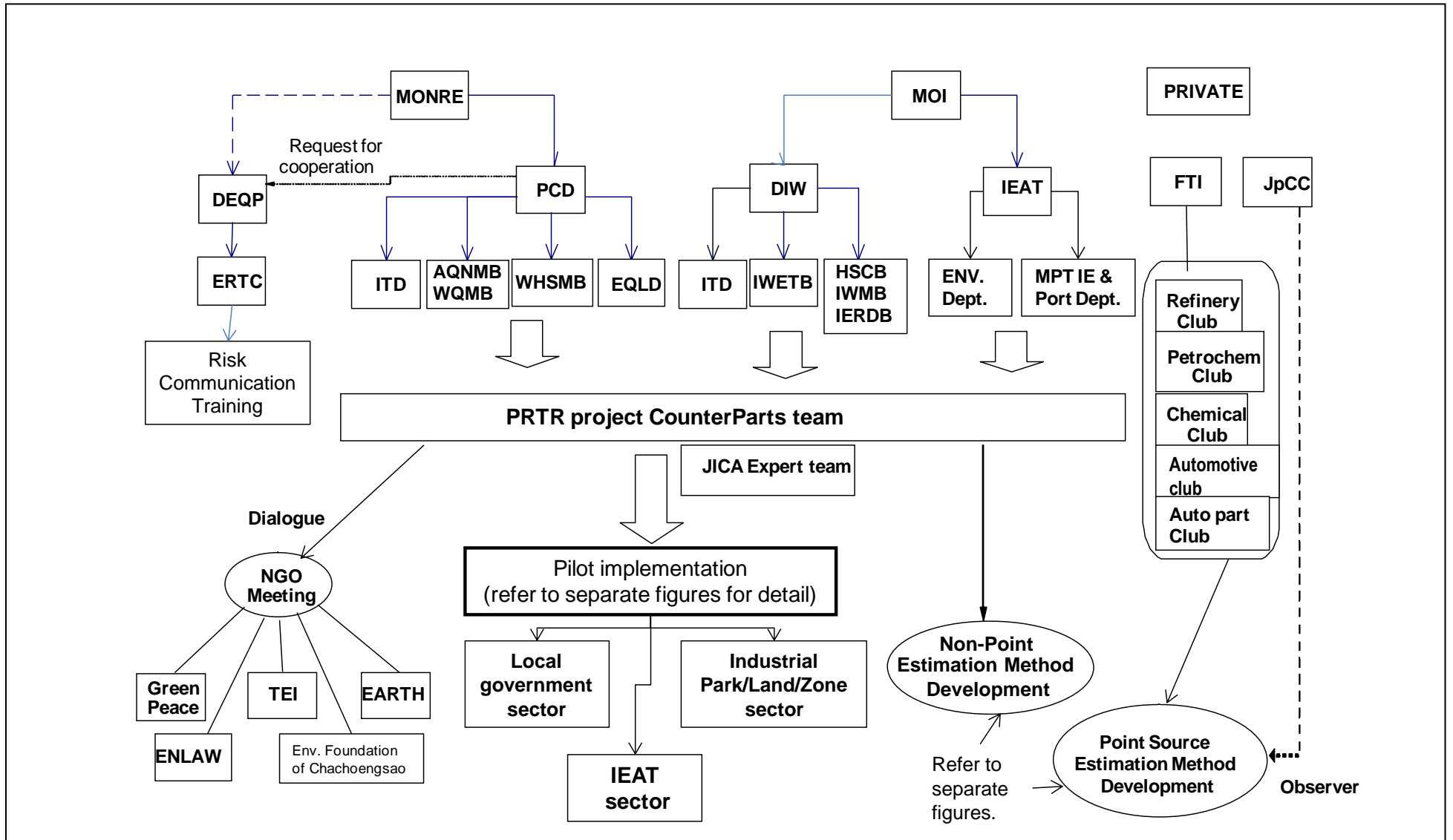
2.3 Major Issues and problem

- Compilation of point source data may delay depending on the response of each facility. To have more report, the period of reporting may need to be extended.
- Time for data compilation, preparation of risk communication is fairly limited at the last six months of the project.
- Feedback survey and final system design as well as preparation of action plan may need to start before the completion of risk communication due to time constrain.
- Sustainability of project outcome and direction towards system establishment is yet to be clarified and agreed.

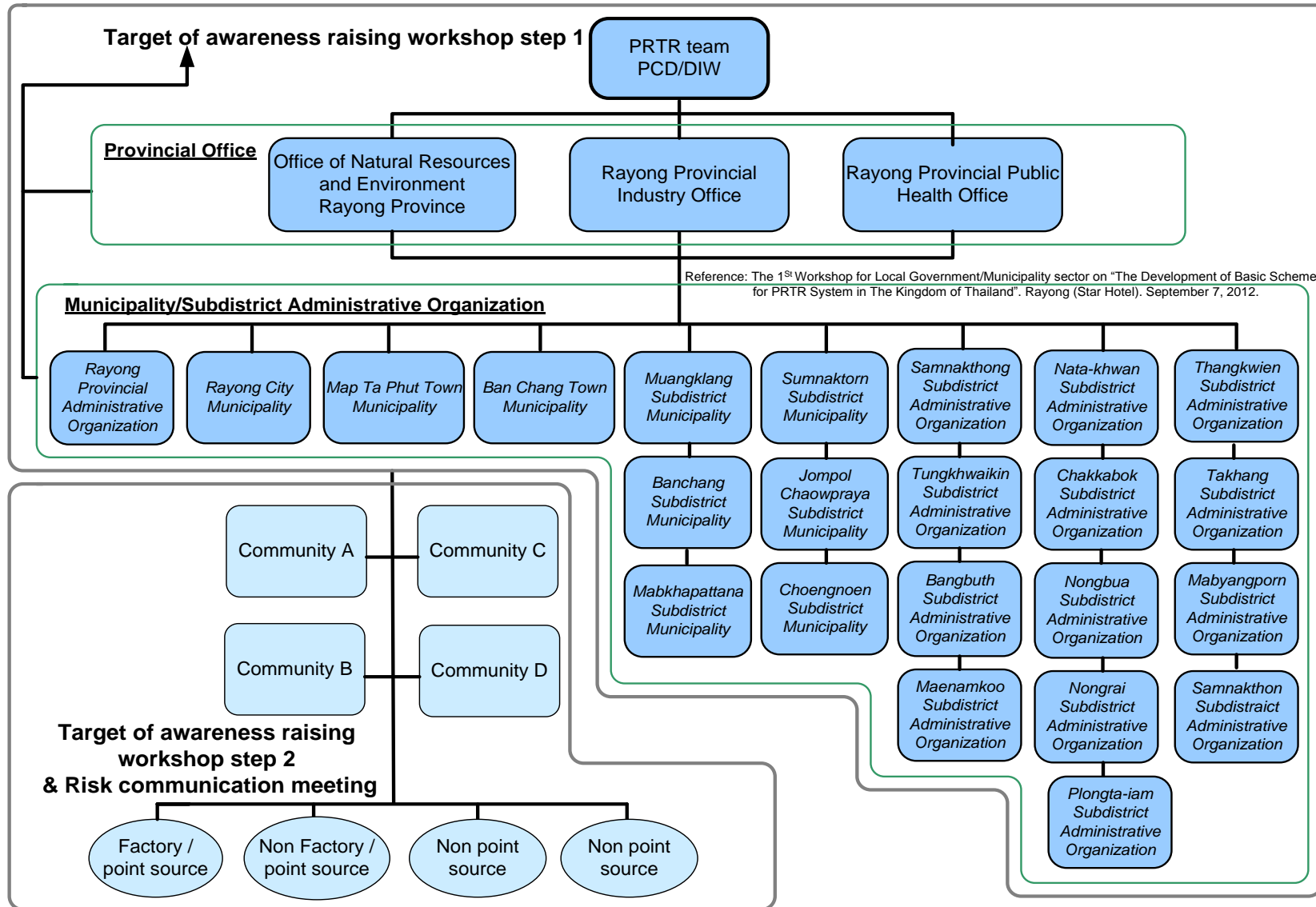
Current situation for point source/ non point source estimation work



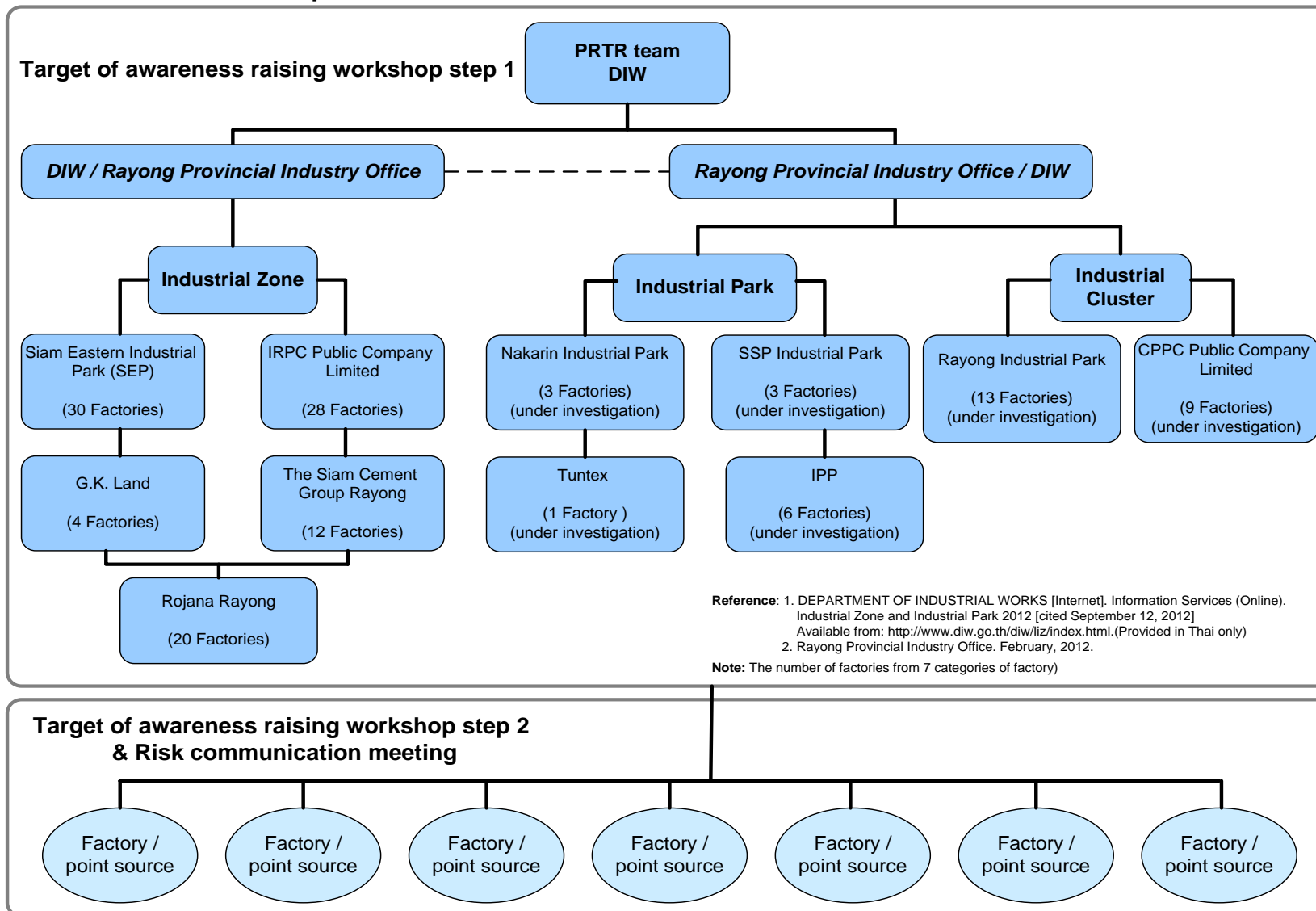
Organization structure of the project and relation with stakeholders



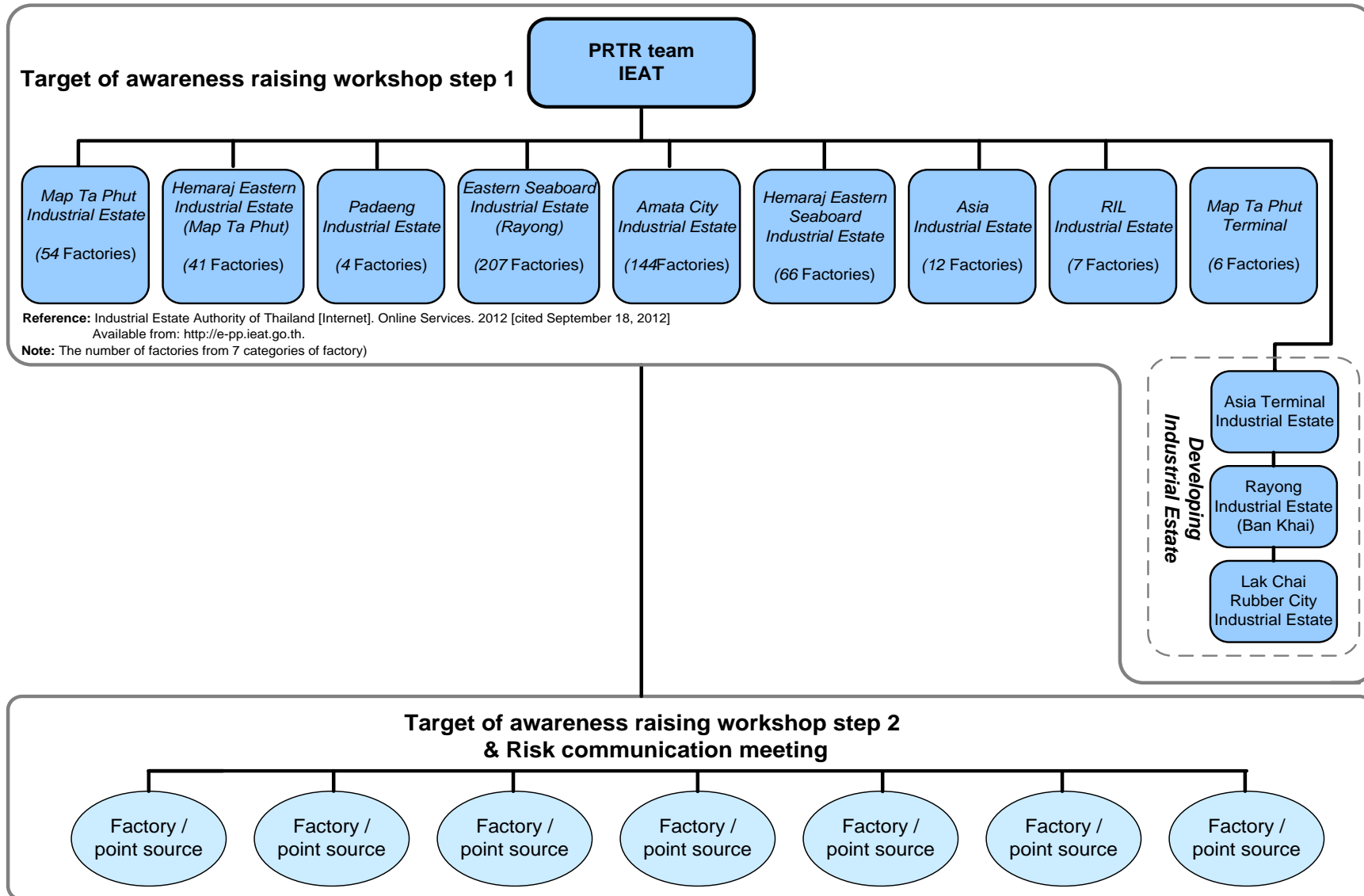
Implementation structure of Local government sector

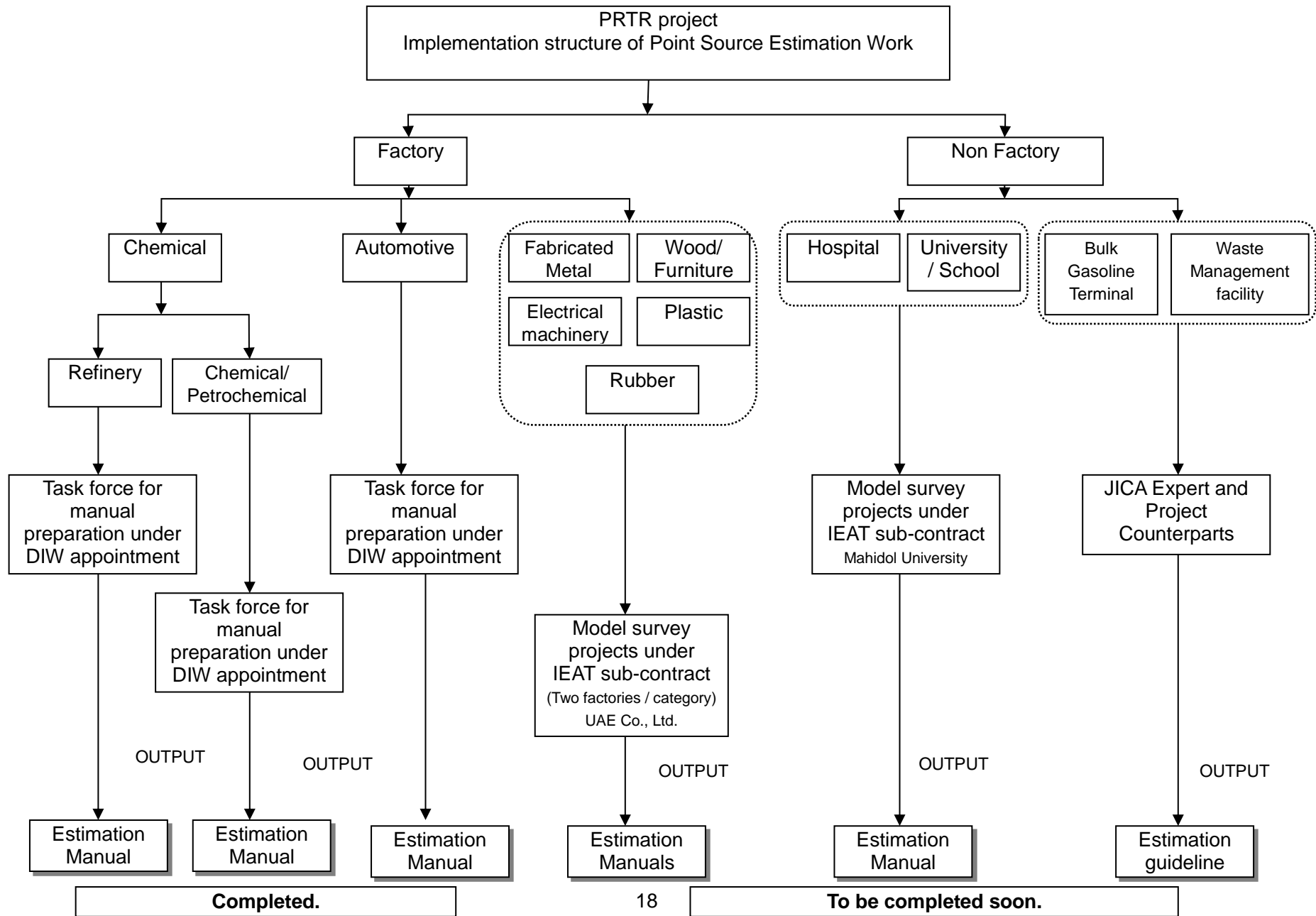


Implementation structure of Industrial Zone/Park/Cluster sector

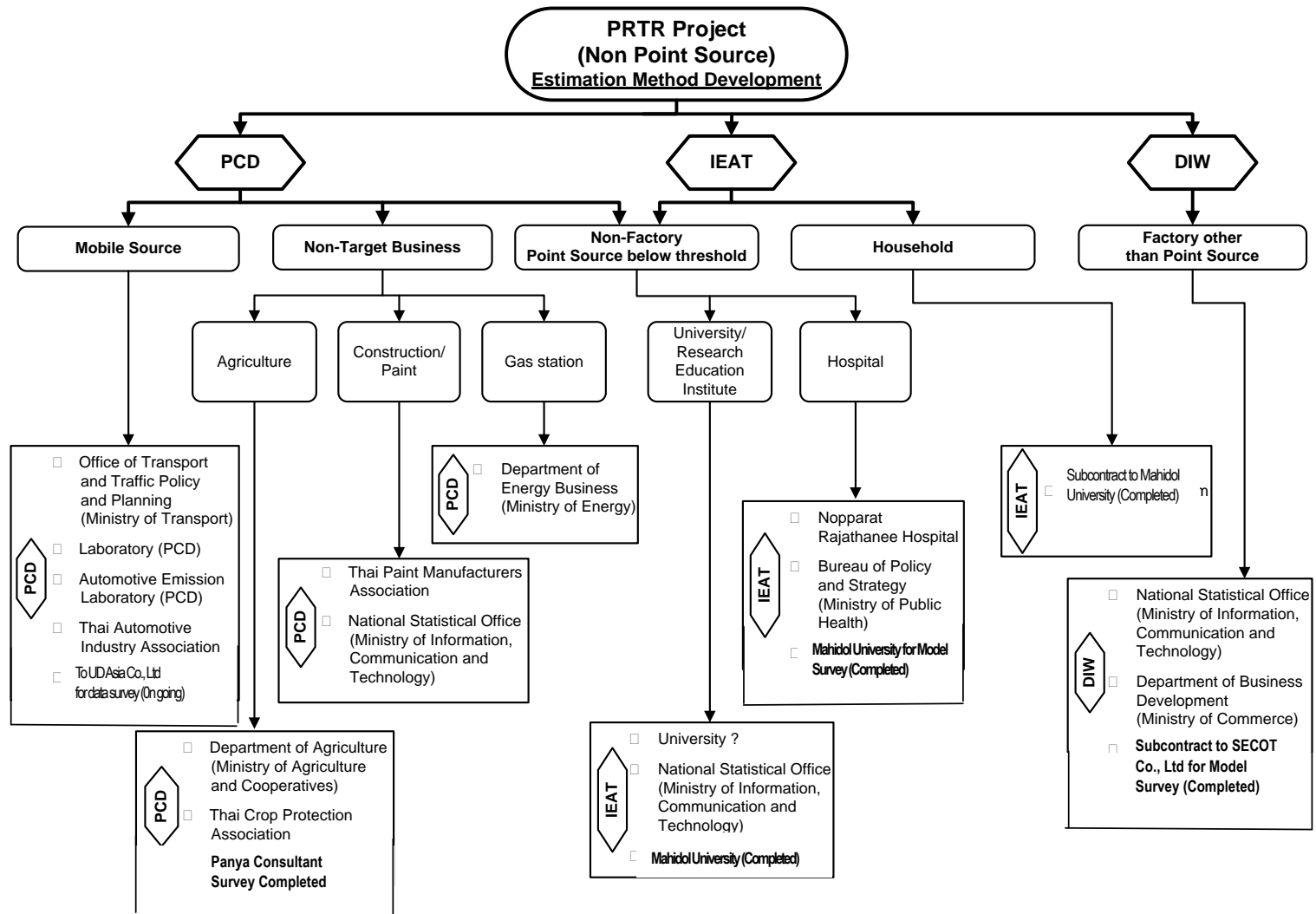


Implementation structure of Industrial Estate (IEAT) sector

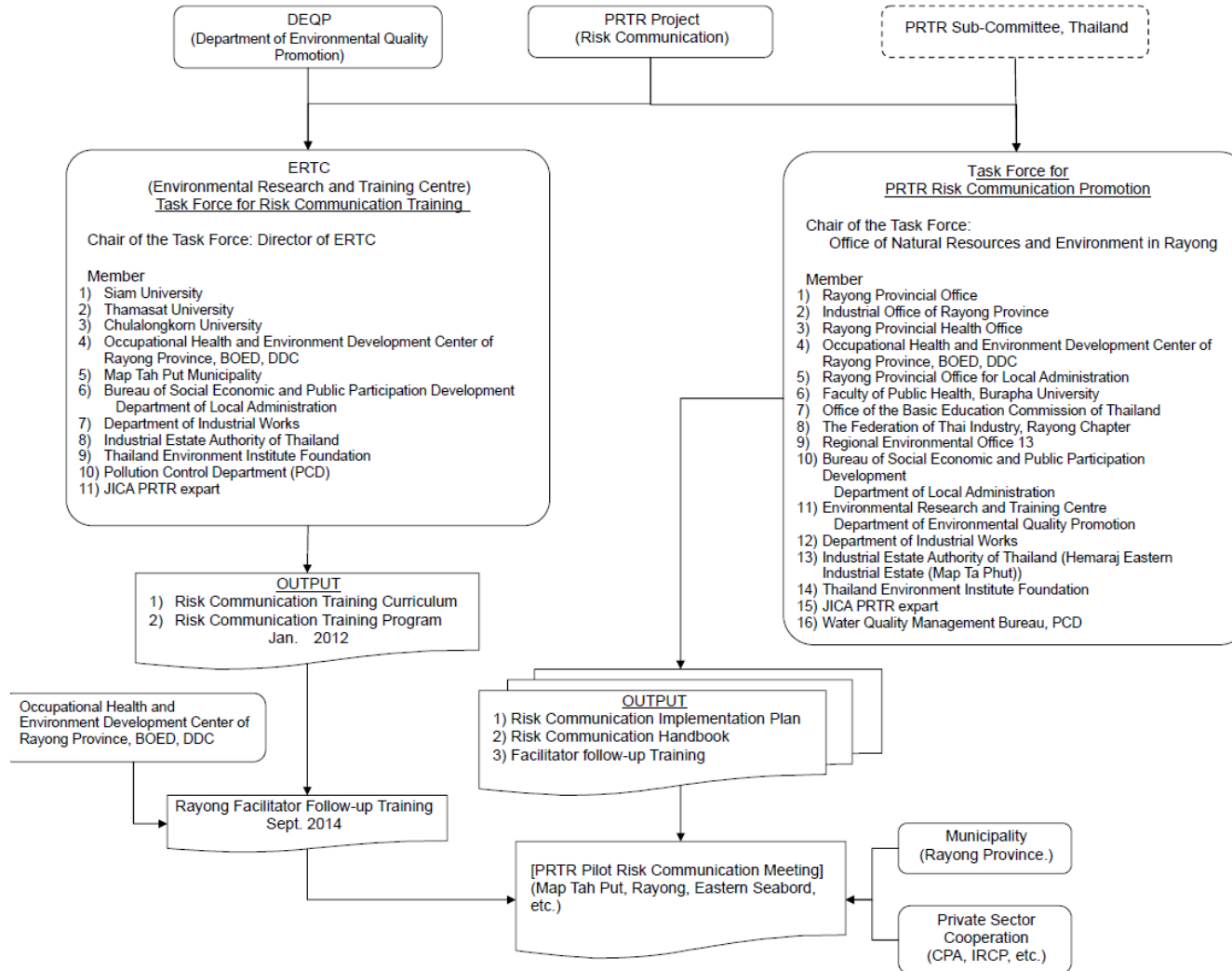




Organization Chart of Non Point Source



Implementation structure of Risk Communication work



3. Progress of each output

3.1 Output 1 Design of PRTR system	
Summary	<p>Workshops and seminars were organized to help industry and other point source to be ready for PRTR reporting.</p> <p>Study tour to Japan was implemented during Oct. 22nd – Nov 2nd with total of 31 participants.</p> <p>Meeting with various industry clubs of FTI were held to discuss pilot PRTR and collaboration.</p> <p>PRTR data management task and data flow among the relevant offices were discussed and agreed. Measure to secure sustainability of pilot PRTR was discussed and considered.</p> <p>(Overall indicator of the progress) Out of 14 activities listed under OUTPUT 1 in the plan, 9 activities completed, 1 on-going, 4 yet to be done.</p>
Activity	<ul style="list-style-type: none"> ● Meeting with following industry club of FTI held; <ul style="list-style-type: none"> ➢ Aluminum industry club ➢ Iron and steel industry club ➢ Rubber- based industry club ➢ Machinery cluster club ➢ Agriculture machinery club ➢ Electrical, electronics and allied industry club ➢ Furniture club ● Study tour to Japan was implemented during Oct. 22nd – Nov 2nd with total of 31 participants. ● Japanese Chamber of Commerce organized 3rd PRTR seminar on Oct. 12, 2013. ● 6th Counterpart meeting was held on Dec 24th, 2013. Responsibility of data management work was discussed and agreed by PCD/DIW/IEAT.
Paper/report prepared	<ul style="list-style-type: none"> ● Pilot project progress report No.3 ● Report of study tour 2013
Issues	<ul style="list-style-type: none"> ● Measure to secure sustainability of pilot PRTR need to be clarified. ● Operation plan for last six months is tight and needs measures.
Plan	<ul style="list-style-type: none"> ● 6th NGO meeting shall be held in late March or early April. ● Methodology of feedback survey shall be discussed and designed.

3.2 Output 2 Reporting system from Industry	
Summary	<p>Preparation of report reception from Industry has been on-going at DIW and at IEAT. Online report system was developed and data validation protocol was drafted and initial training was provided.</p> <p>Official request letters and report form was sent to all facilities with the letter from Rayong provincial governor.</p> <p>(Overall indicator of the progress) Out of 10 activity list under OUTPUT 2 in the plan, 5 activities completed, 2</p>

	on-going, 3 yet to be done.
Activity	<ul style="list-style-type: none"> ● On line reporting data system was developed in DIW. ● On line reporting data system was developed in IEAT. ● Official request letters and report form were sent to all facilities with the letter from Rayong provincial governor. ● Training workshop for hospitals, bulk gasoline terminal, school and waste management facility was organized on Jan. 24th, 2014 ● Seminar for 5 industrial categories (wood/furniture, plastic, metal, electrical machinery and rubber) was organized on Jan. 28th, 2014. ● PRTR knowledge management workshop was organized for IEAT staff on Feb. 21, 2014 ● Report data validation training workshop was organized for PIO staff on Feb. 27, 2014 ● PRTR reporting workshop for factories in Map Ta Phut complex was organized on March 7, 2014
Paper/report prepared	<ul style="list-style-type: none"> ● Project report under subcontract by DIW for industrial PRTR data base
Issues	<ul style="list-style-type: none"> ● Extent of industry cooperation in pilot PRTR reporting is not clear.
Plan	<ul style="list-style-type: none"> ● Receive the report, validate and compile the data. ● Revise the estimation manuals.

3.3 Output 3 Estimation from Point Source	
Summary	<p>On-site coaching for estimation and reporting was provided to over 20 factories by JICA expert and counterpart team in chemical and automotive sectors. Supports for other industrial sector are being prepared through sub-contract to local consultants. Training to non industrial sector was implemented.</p> <p>Estimation manual for 5 industrial sectors are being prepared.</p> <p>(Overall indicator of the progress) Out of 9 activity list under OUTPUT 3 in the plan, 4 activities completed, 3 on-going, 2 yet to be done.</p>
Activity	<ul style="list-style-type: none"> ● Model survey for 5 industrial sectors (furniture/wood, metal, electrical machinery, plastic, rubber) under subcontract by IEAT is almost completed. ● Model survey for hospital/university under subcontract by IEAT was completed. ● On-site coaching factory visits were implemented by JICA expert and C/P team (24 factories) ● Subcontract was provided to local consulting firm to assist 50 factories under 5 industrial categories. ● Report validation protocol was developed.
Paper/report prepared	<ul style="list-style-type: none"> ● Project report under subcontract by IEAT for hospital/school/household study ● Consultation report from on-site coaching visit to factories. ● Report validation protocol.

Issues	<ul style="list-style-type: none"> ● Estimation manual for 5 industrial sectors needs to be improved. ● Factories in 5 industrial sectors shall be encouraged to participate in the pilot PRTR more.
Plan	<ul style="list-style-type: none"> ● Receive the report, validate and compile the data. ● Revise the estimation manuals.

3.4 Output 4 Estimation from Non Point Source	
Summary	<p>Various subcontracted surveys have been reported. Traffic data survey was started by a subcontractor. Estimation manuals are being drafted</p> <p>(Overall indicator of the progress) Out of 11 activity list under OUTPUT 4 in the plan, 6 activities completed, 2 on-going, 3 yet to be done.</p>
Activity	<ul style="list-style-type: none"> ● Pesticide survey conducted under the subcontract by PCD was completed. ● Survey for non-point industrial source (SMEs model survey) conducted under the subcontract by DIW was completed. ● Hospital/university/household model survey conducted under subcontract by IEAT was completed. ● TOR for traffic data survey was finalized. ● Traffic data survey was contracted and the work started. ● Nationwide emissions from the use of paint with TPMA were estimated and the collection of information for allocation to local areas is continued. ● Estimation manual for agriculture was drafted. ● Estimation manuals for mobile sources, gas station, households, hospital and institute/university are under drafting. ● Experiments to establish emission factors for mobile sources is continued
Paper/report prepared	<ul style="list-style-type: none"> ● Manual to Estimate Emissions from the Use of Paints at Non-Point Sources (final draft) ● Manual to Estimate Emissions from the Use of Marine Coatings at Factories (final draft)
Issues	<ul style="list-style-type: none"> ● Emission factor for mobile source to be experimented ● Emission factor for gas station to be collected ● Progress of sub-contracted survey to be monitored.
Plan	<ul style="list-style-type: none"> ● Sub-contracted survey for traffic data survey to be finalized. ● Emission factor experiment for mobile source to be finalized. ● Estimation manuals to be finalized ● Establishment of how to validate the estimated results ● Compilation of emission data

3.5 Output 5 Utilization of PRTR data	
Summary	<p>Basic rule of PRTR data utilization was discussed among C/P.</p> <p>(Overall indicator of the progress) Out of 5 activity list under OUTPUT 5 in the plan, 1 activity completed, 4 yet</p>

	to be done.
Activity	<ul style="list-style-type: none"> ● Sample data book was prepared and discussed among C/P. ● Basic rule of PRTR data utilization was discussed among C/P.
Paper/report prepared	None
Issues	<ul style="list-style-type: none"> ● Image of output 5 shall be clarified and shared by C/P.
Plan	<ul style="list-style-type: none"> ● Continue discussion on output 5 work among C/P

3.6 Output 6 Risk Communication	
Summary	<p>Task Force meeting on Risk Communication Promotion was held.</p> <p>(Overall indicator of the progress)</p> <p>Out of 9 activity list under OUTPUT 6 in the plan, 4 activities completed, 2 on-going, 3 yet to be done.</p>
Activity	<ul style="list-style-type: none"> ● 3rd Task Force meeting on risk communication promotion was held on Oct. 16th, 2013 ● Pilot implementation plan for risk communication was approved, in principle, at the task force meeting. ● DEQP approved the facilitator training on routine basis.
Paper/report prepared	<ul style="list-style-type: none"> ● Draft pilot implementation plan for risk communication
Issues	<ul style="list-style-type: none"> ● Registration system for chemical adviser shall be considered
Plan	<ul style="list-style-type: none"> ● Once the PRTR data is complied, training material of facilitator will be updated and follow up training will be provided. ● Risk communication handbook to be completed. ● Risk communication material will be prepared.

ANNEX

1. List of CP and task forces

- PRTR project CP list
- Risk Communication Promotion Task Force

2. Paper/Report prepared

- Summary of pesticide survey
- Summary of industrial database and online system development
- Summary of non point industry source survey
- Summary of hospital, school and household survey
- Manual to Estimate Emissions from the Use of Paints at Non-Point Source (final draft)
- Manual to Estimate Emissions from the Use of Marine Coatings at Factories (final draft)
- Draft pilot implementation plan for risk communication
- Pilot project Implementation 3rd Progress report
- Point source consultation report

3. Report of the study tour to Japan

4. Meeting/Visit/workshop memo

5. JICA PRTR website and newslette