

2.4 Session 4: Details of Suggestions for Improvement of PEQMP-KPI Manual (2)

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Details of Suggestion for the Improvement of PEQMP-KPI Manual (2)

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and JICA Study Team
The Study on Supporting System for Provincial Administrations on Natural Resources and Environmental Management

Suggestions for the Format of PEQMP-KPI

Chapter 2. Format of PEQMP-KPI
2.1 Part 1: Introduction
2.2 Part 2: Situation and Issues of the Province
1) Basic Information of the Province
2) Situation of NREM of the Province
3) Analysis of Current Issues and Impacts from Socio-economic Development
4) Priority Setting of Issues
5) Provincial Potential Analysis by SWOT Analysis
6) Preventive Measures and Solution for Issues

Suggestions for the Format of PEQMP-KPI

Chapter 2. Format of PEQMP
2.3 Part 3 Detail of PEQMP-KPI
2.4 Part 4 Annex
1) Detail of Important Projects of Province (List and Explanation of Project Priority No. 1-5)
2) Data or Detail related to the Action Plan Annex

Summary of Suggestions for the Format of PEQMP-KPI

Part	Summary of Suggestions
3) Analysis of Current Issues and Impacts from Socio-economic Development	<ul style="list-style-type: none"> To move to 2) "Situation and Issues of NRE in the Province"
4) Priority Setting of Issues	<ul style="list-style-type: none"> To discuss the process of priority ranking among the issues raised in the previous sections (ideally together with the results of opinion survey among all stakeholders) Specifically present the priority ranking of issues that should be solved by the target year of PEQMP-KPI (B.E. 2008-2011)

Summary of Suggestions for the Format of PEQMP-KPI (Cont'd)	
Part	Summary of Suggestions
6) Preventive Measures and Solution for Issues	<ul style="list-style-type: none"> To change the title of this section to "Selection of Priority Programs". Due to the limitation of budget, the priority ranking of issues that must be implemented within 4 target years of PEQMP-KPI (B.E. 2008-2011) should be considered Discussion of non-prioritized sectors should be put the Table in Section 2)

Summary of Suggestions for the Format of PEQMP-KPI (Cont'd)	
Section	Suggestion for Improvement
Detail of PEQMP-KPI	Detail of PEQMP-KPI
1. Objective 2. Target 3. Strategy	1. Prepare detail for priority programs only
4. Work plans/Projects/Activities	2. Use PDM (Project Design Matrix) format as a tool to show the relationship of individual Priority Project plan (= Work plan/ Project/Activities) and how they be grouped under a larger Priority Program in a sector. PDM format also allow to input more details indicated in PEQMP-KPI Manual
5. Funding and Funding source	
6. The organization in charge/Resources to be used	
7. Output	
8. Indicator of the success of the project	
9. Mechanism for the Implementation	
10. Evaluation method	

Summary of Suggestions for the Format of PEQMP-KPI (Cont'd)	
Section	Suggestion for Improvement
Detail of Important Projects of Province (List and Explain Project Priority no. 1-5)	<ul style="list-style-type: none"> Detail of Priority Projects under Priority Programs to be implemented in target year (B.E. 2008-2011)

Summary of Suggestions for the Format of PEQMP-KPI (Cont'd)	
Section	Suggestion for Improvement
Part 2	
3) Analysis of Current Issues and Impacts from Socio-economic Development => Summary of Situation & Issues of NRE	
Example: Marine and Coastal Resource	
1. Issue (1): Number of aquatic animals is decreasing	
2. Area that issue occurs: Marine and coastal areas	
3. Causes:	
<input type="checkbox"/> Inappropriate fishing methods i.e. inappropriate tools/ substances	
<input type="checkbox"/> Large amount of wastewater discharge	

Part 2

3) Analysis of Current Issues and Impacts from Socio-economic Development => Summary of Situation & Issues of NRE

Example: Marine and Coastal Resource (Cont'd)

4. Impact:

- Decrease in the population of aquatic animals
- Damage to coastal farming

5. Measures taken:

- Release aquatic animals back to nature on special occasions
- Inform fish farmers to sell only mature fishes; warn fishermen on illegal fishing methods through TAO, local cable TV, Fishery network

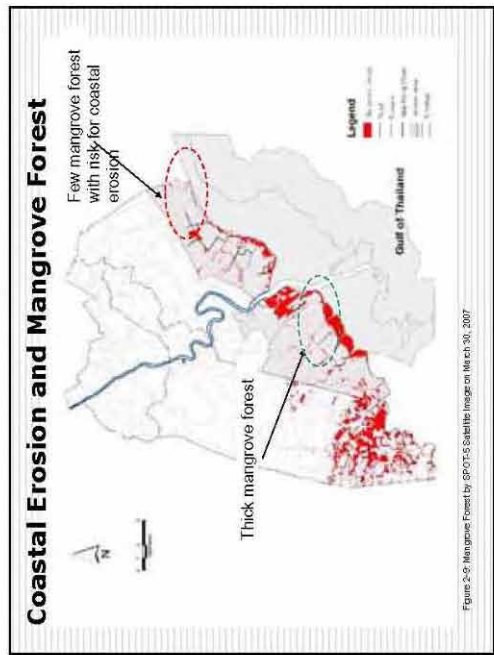
Part 2

3) Analysis of Current Issues and Impacts from Socio-economic Development => Summary of Situation & Issues of NRE

Example: Marine and Coastal Resource (Cont'd)

6. Measures to be taken:

- Conduct research, development and guidance in proper fishing methods in order to prevent over-fishing
- Enforcement of law by LAs among illegal fishermen
- Support the development of voluntary network among fishermen and encourage them to be involved in marine and coastal resources conservation
- Educate local residents about the role and importance of mangrove forests in overall environmental conservation



Part 2

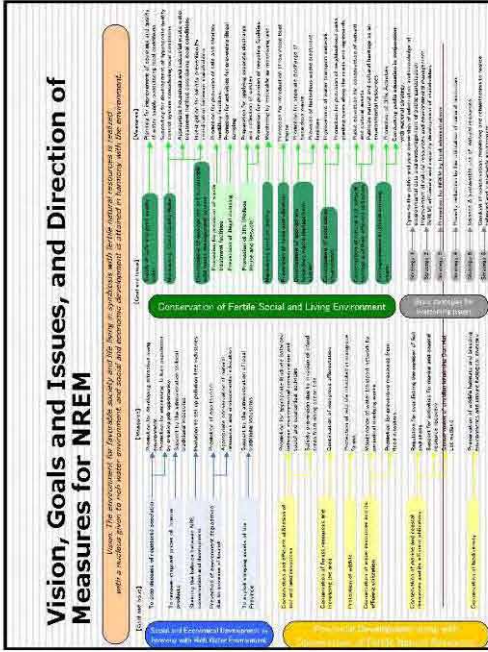
3) Analysis of Current Issues and Impacts from Socio-economic Development => Summary of Situation & Issues of NRE

Example: Marine and Coastal Resource (Cont'd)

- 1. Issue (2):** Tidal erosion of seashore
- 2. Area that issue occurs:** Tambon Bang Kao
- 3. Cause:** Tidal force and inappropriate land use
- 4. Impact:** Loss of land and property
- 5. Measure taken:** Coastal protection
- 6. Measure to be taken:** Mangrove afforestation and study on coastal erosion mechanisms

**Summary of Situation & Issues of NRE (4):
Vision, Goals and Issues, and Direction of
Measures (1)**

- ❑ It is impossible to implement all of the issues and measures discussed in the section above by the PEQMP target year of 2011.
- ❑ The ideal state of NREM that the Province should aspire to in the long term is expressed through Vision and Goals, and the Issues and Direction of Measures are sorted accordingly. This long term goal must reflect the opinions of as many stakeholders as possible.



Part 2

4) Priority Setting of Issues: Selection Process of Priority Issues and Programs

- ❑ PEQMP formulation committee meeting
- ❑ Opinion Survey to residents, business entities, local administrations, NGOs
- ➔ Selection of Priority Issues
- ➔ Priority Programs on Priority Issues which should be implemented by 2011

Part 2

4) Priority Setting of Issues: Opinion Survey to the Stakeholders

Target Group

Target Group	Number
Local Administration	36 LA
Resident	64
Business Establishment	47
NGO	5 NGO

Part 2
4) Priority Setting of Issues: Problems of NREM

Target Group	Most Serious Problem	Reply Rate (%)	Second Most Serious Problem	Reply Rate (%)
LA	Marine/Coastal /Fishery Resources	38.9	Solid Waste Management	27.8
Resident	Marine/Coastal /Fishery Resources	25.0	Global Warming	23.4
Business Establishment	Marine/Coastal /Fishery Resources	25.5	Global Warming	17.0
NGO	Marine/Coastal /Fishery Resources	100.0	•Solid Waste Management •Water Quality	60.0 60.0

Part 2
4) Priority Setting of Issues: Reasons for Selecting Most Serious Problems

Most Serious Problem	Specific issue	Reason for choice
Marine /Coastal /Fishery Resources	<ul style="list-style-type: none"> •Disordered and illegal fishing methods •Decrease of fishery resources •Over harvesting of Razor clams •Coastal erosion •Too many tourists 	<ul style="list-style-type: none"> •Extreme decrease of fishery resources and less income for fishermen •Extreme reduction of razor clam population •Loss of land •Deterioration of natural environment

Part 2
4) Priority Setting of Issues: Reasons for Selecting Second Serious Problem

Second Serious Problem	Specific issue	Reason for choice
Solid Waste Management	<ul style="list-style-type: none"> •Improper treatment of huge amount of solid waste •Improper management of transfer station by private company •Dumping waste into waterways 	<ul style="list-style-type: none"> •Occurrence of serious environmental problem •Obstacles to fishery
Global Warming	<ul style="list-style-type: none"> •Rise in temperature 	<ul style="list-style-type: none"> •Adverse impact on agriculture •Decrease of fishery resources •Change of season •Influence on health
Water Quality	<ul style="list-style-type: none"> •Polluted water flowing from neighbouring provinces •Polluted water flowing from fishery ponds 	<ul style="list-style-type: none"> •Decrease of fishery resources •Adverse impact on agricultural land

Part 2
4) Priority Setting of Issues: Priority Examined in SWOT Analysis

- The PEQMP-KPI Formulation Committee was held at the SKP Conference Room on the 2 of July 2007 chaired by the Governor
- SWOT Analysis was conducted with 70 relevant participants directed by a moderator from Mahidol University
- In addition to SWOT Analysis, the priority among issues to be resolved for NREM was examined in the PEQMP-KPI Formulation Committee.

Part 2
4) Priority Setting of Issues: Priority Issues on Natural Resources in SKP discussed in SWOT Analysis Meeting

Priority	Disastified/Degraded	Revertive Measures and/or Solution
1.	Amount of aquatic animals is decreasing	<ul style="list-style-type: none"> Build habitat for marine animals (artificial coral) Release fresh water aquatic animals into natural water Publish warnings to fishermen to stop illegal fishery Encourage people and fishermen to participate in protection e.g. support creation of voluntary fisherman's network in the entire area
2.	Deteriorated soil	<ul style="list-style-type: none"> Reduce the use of chemical fertilizers Promote the use of biological/ organic fertilizers Promote planting of vetiver grass Provide knowledge on soil conservation
3.	Water Monitor lizards eat villagers' pets/ livestock	<ul style="list-style-type: none"> Decide upon a responsible agency for catching and releasing water monitors in a controlled area Propose to relevant organizations to reconsider law on water monitors as a protected animal
4.	Lack of water for domestic use/ consumption and agriculture	<ul style="list-style-type: none"> Expand water supply to cover whole area Repair/ maintenance of water supply system Bridge canal Organize water presentation block i.e. water control facility/ collect opinions from all sectors in order to meet requirement of area and thus operate properly
5.	Land are sold to investors	<ul style="list-style-type: none"> Campaign to create awareness for loss of hometown Promote "sufficiency economy" philosophy

Part 2
4) Priority Setting of Issues: Priority Issues on Environment in SKP discussed in SWOT Analysis Meeting

Priority	Disastified/Degraded	Revertive Measures and/or Solution
1	Uncollected waste	<ul style="list-style-type: none"> Promote waste separation Reduce waste generation Increase capacity of collection and disposal
2	Wastewater	<ul style="list-style-type: none"> Construct proper wastewater treatment system for the area Create awareness among residents to stop discharging waste and night soil into natural water sources
3	No waste disposal site	<ul style="list-style-type: none"> Build acceptance among local residents Provide quality management by government
4	Household hazardous wastes	<ul style="list-style-type: none"> Promote waste separation Provide guidelines in integrated disposal system
5	Disorderly advertising billboards	<ul style="list-style-type: none"> Strict and serious enforcement of law Survey on advertising billboards in the Province
6	Noise level is above standard	<ul style="list-style-type: none"> Set measures for tourism boats to have standard engine noise levels Changing tourism boat engines to models within noise standard
7	Infectious waste from hospital/clinics	<ul style="list-style-type: none"> Collect and dispose of medical waste using proper technology

Part 2
4) Priority Setting of Issues: Examination of Priorities

- Since NREM encompasses a wide-ranging variety of sectors, it is quite difficult to decide the priority ranking among projects from differing sectors.
- Individual NREM projects routinely require a huge sum of money to implement.
- It becomes important to conduct sufficient survey, research, and planning activities and to exhaustively consider the feasibility of each project, in order to make each individual NREM project cost-effective.
- Specifically priority among projects should be determined only after extensive comparative analyses between sector master plans.
- SKP lacks these basic master plans in various NREM sectors.

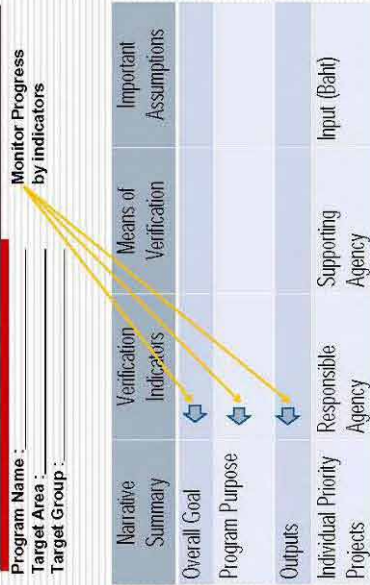
Part 2
6) Preventive Measures and Solution for Problems => Selection of Priority Programs (to be implemented by 2011)

- Improvement in individual NREM sectors
 - Program for Conservation and Rehabilitation of Aquatic Resources
 - Program for Appropriate and Sustainable Solid Waste Management
 - Program for Safe and Quality Water Supply
 - Program for Water Quality Preservation in Public Water Bodies
- Strengthening NREM administration
 - Program to Strengthen Linkage between Central Government Agencies, Provincial Administrations and LAs
 - Program to Strengthen NREM capacities of LAs

Part 3 Details of the PEQMP

1. Should provide details of the priority programs i.e. objectives, results, indicators etc.
2. Should use a PDM (Project Design Matrix) format
3. 1 PDM = 1 project

PDM Structure



Part 3 Details of the PEQMP: Project Design Matrix (PDM)

- Advantage of PDM
 - It is logically explained that, in order to achieve Program Purpose, what kind of outputs will be required.
 - It is logically explained what kind of inputs (Individual Priority Projects) will be required in order to realize outputs.
 - It is easy to monitor progress of each step

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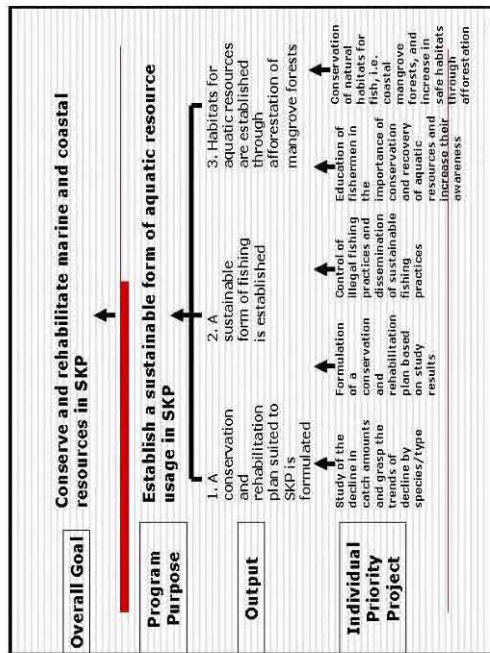
Part 3 Details of the PEQMP:

Example 1: Conservation and Rehabilitation of Aquatic

Resources: Background

- Although the GPP for the whole Province is on the increase, the GPP for the fishery sector in 2005 (356 million Baht) has decreased to half of the 2001 figures (658 million Baht).
- All of four opinion survey target groups pointed out that the most serious problem of NREM in SKP is "Marine and coastal resources". The reasons why the respondents regarded this as the most serious problem are as follows:
 1. Extreme decrease of fishery resources and less income for fishermen
 2. Extreme reduction of razor clam population
 3. Loss of land
- Investigation revealed that there is a moderate amount of erosion, at a rate of 1 to 5 meters per year, at the northeast coast of the Gulf of Thailand

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**Part 3 Details of the PEQMP:
Example 1: Individual Priority Projects, Responsible Agency, Supporting Agency, and Input**

Individual Priority Projects	Responsible Agency	Supporting Agency
1.1. Study of the decline in catch amounts and grasp the trends of decline by species/type, use of study as baseline data to suggest countermeasures	PFO	PEO, MFDS7, FFKU, MSRDC
1.2. Formulation of a conservation and rehabilitation plan based on study results	PFO	PEO, MFDS7, FFKU, MSRDC
2.1. Control of illegal fishing practices and dissemination of sustainable fishing practices	PFO, LAs	PEO
2.2. Education of fishermen in the importance of conservation and recovery of aquatic resources and increase their awareness	PEO, LAs, MFDS	PO
3. Conservation of natural habitats for fish, i.e. coastal mangrove forests, and increase in safe habitats through afforestation	MFDS7, PEO	LAs

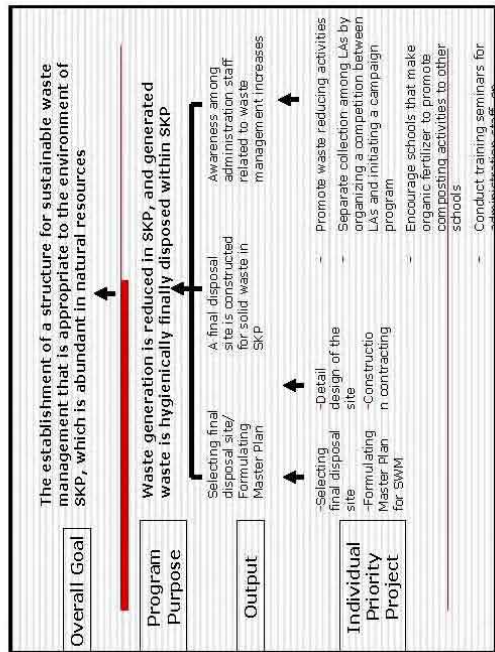
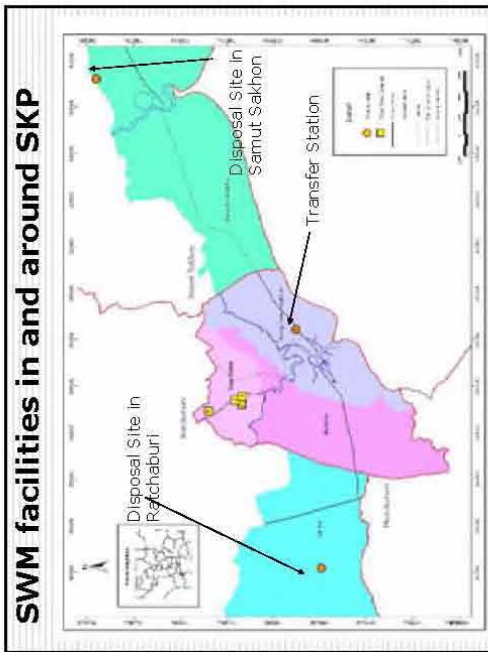
**Part 3 Details of the PEQMP:
Example 1: Monitoring Progress of Work**

Outputs	Verification Indicator
1. A conservation and rehabilitation plan suited to SKP is formulated	1.1. Fishery statistics by species/type and location 1.2. Detailed plan for conservation and rehabilitation
2. A sustainable form of fishing is established	2.1. Number of warnings and arrests over illegal fishing practices 2.2. Number of workshops and other educational events, number of participants of the same
3. Habitats for aquatic resources are established through afforestation of mangrove forests	3. Afforestation area statistics and total area statistics of mangrove forest

Progress of the work will be monitored by verification indicators.

**Part 3 Details of the PEQMP:
Example 2: Appropriate and Sustainable SWM in SKP: Background**

- There is no final disposal site located within SKP. All collected wastes from a transfer station are transported to disposal sites in neighboring Ratchaburi and Samut Sakhon Provinces as shown in the next screen.
- If the neighboring Provinces refuse to accept the waste collected in SKP, SKP could end up with many waste heaps in every urban area. This kind of "Waste War" has occurred in many cities in the world, including Tokyo, Japan.



Part 3 Details of the PEQMP:
Example 2: Individual Priority Projects, Responsible Agency and Supporting Agency

Individual Priority Projects	Responsible Agency	Supporting Agency
1-1. Site Selection for Final Disposal Site	Orborjor	Provincial Pollution Control Department
1-2. Formulation of Sustainable SWM Master Plan in Provincial Level		
1-3. Detailed Design study for the final disposal site		
1-4. Selection of construction contractor through tender process, and construction of final disposal site		

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**Part 3 Details of the PEQMP:
Example 2: Individual Priority Projects, Responsible
Agency and Supporting Agency**

Individual Priority Projects	Responsible Agency	Supporting Agency
2. Student/ public education in order to reduce waste generation rate.	LA	PEO, PLA0, Schools
3. Promotion of separate collection among LAs by organizing a competition between LAs and initiating a campaign program	LA	PEO, REO, DEQP
4. Dissemination of school composting among schools that do not currently implement such a program	Schools	PEO, REO, LA
5. Training seminars for administration staff on appropriate and environmentally friendly waste management	PEO	PEO, PCD, DEQP

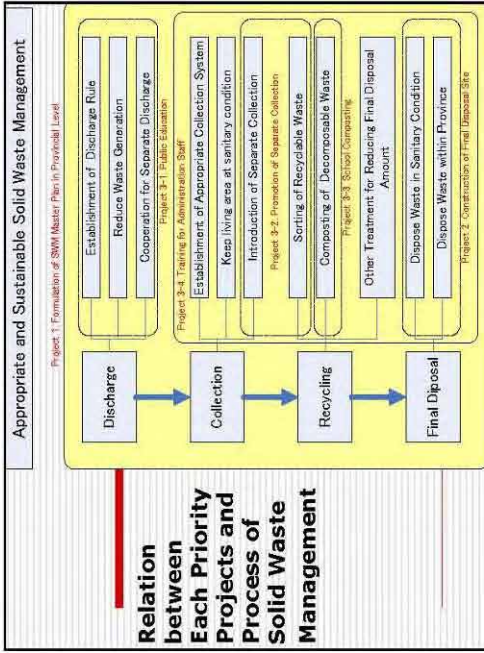
**E) Part 3 Details of the PEQMP (14): Example
(2) Monitoring Progress of Work**

Outputs	Verification Indicator
1. Having final disposal site	1. Capacity of new final disposal
2. Volume of waste is decreased	2. Waste generation rate per capita
3. More waste is separated and collected in LAs	3. Volume of separate discharge and collection, number of LAs
4. More schools hold composting activities and volume of waste is decreased	4. Number of schools which implemented school composting
5. An awareness on appropriate SWM is raised.	5. Number of seminars for administration staff

Progress of the work will be monitored by verification indicators.

**Part 4 Details of Important Projects
=> Details of Priority Projects**

- Example: Program for Appropriate and Sustainable Solid Waste Management in SKP
- Priority Projects
 - Formulation of SWM master plan in Provincial level
 - Construction of Final Disposal Site
 - Raising awareness on an appropriate SWM



Sample of Priority Project Detail – 1/7

- 1. Program Name**
 - Program for appropriate and sustainable SWM in SKP
- 2. Project Name**
 - Formulation of SWM master plan in Provincial level
- 3. Sector in NRE**
 - Solid Waste

Sample of Project Detail – 2/7

- 4. Responsible Agency**
 - Orboror in collaboration with all LAs
- 5. Supporting Agency**
 - Provincial Committee (PC), Pollution Control Department (PCD)
- 6. Monitoring and Evaluation Agency**
 - PEO in association with all stakeholders

Sample of Project Detail – 3/7

- 7. Background of the Project**
 - National Solid Waste Management plan was drafted by Pollution Control Department of MNRE in June 2003. This plan is a master plan at national level; and national policy and strategy are specified.
 - SKP does not have Master Plan on Solid Waste Management. It should therefore, formulate a Master plan that covers not only a final disposal but also other aspects such as improvement of waste collection, reduction of waste generation, promotion of recycling and so on.

Sample of Project Detail – 4/7

- 8. Objective of the Project**
 - Sustainable SWM master plan in provincial level is formulated
 - Site for final disposal site is selected
- 9. Objectively Verifiable Indicators**
 - Contents of SWM master plan (TOR)
 - Monitoring and Evaluation Agency

Sample of Project Detail – 5/7

- 10. Main Components of the Project**
- Formulation of sustainable SWM master plan of SKP (include priority project such as construction of final disposal site)
 - Site selection of final disposal site
 - Formation of final disposal site selection committee
 - Formulation of selection and exclusion criteria
 - Selection of candidate locations
 - Public hearings and getting agreement from nearby residents.
 - Selection of final disposal site

Sample of Project Detail – 6/7

11. Implementation Schedule

Component	Implementation
Site Selection of final disposal site	2008-2009
Formulation of SWM master plan	2008-2009

12. Budgetary Plan

Component	Budget	Source
Site Selection of final disposal site	1,000,000	Orborjor
Formulation of SWM master plan	3,000,000	Orborjor

Sample of Project Detail – 7/7

- 13. Justification of the Project**
- Beneficiary: Whole population in SKP
 - Relation with upper plan : **To be confirmed**

Thank you very much