## 添付資料 3.F

ステークホルダーミーティング 資料(専門家チーム) Technical Assistance for Power Development Plan 7 in Vietnam Stakeholders Meeting August 3, 2010 in Hanoi, Vietnam

# Interim Review of PDP7 (Environmental and Social Consideration)

**JICA TA Team/TEPCO** 

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- 2. SEA Review Checklist
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## 1. Outline of the Interim Review

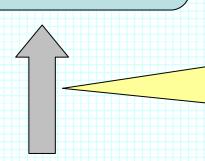
## 1.1 **SEA**

## **SEA (Strategic Environmental Assessment)**

- Required by the Law on Environmental Protection of Vietnam
- ➤ SEA is environmental assessment which aims at the Policy, Plan and Program (PPPs)
- ➤ It can investigate broader range of mitigation measures from more early stage, compared to Environmental Impact Assessment (EIA), which aims at individual projects

## 1.2 Outline of the Interim Review





### **Importance of Quality Improvement**

- Most of development cooperation agencies require to apply SEA to Master Plan etc.

## **Interim Review**

- Preparation of SEA Review Checklist
- Based on
  - Relevant Vietnamese laws and regulations
  - ➤ Good practice of the development cooperation agencies etc.

## 2. SEA Review Checklist

## 2.1 SEA Review Checklist (1)

SEA Review Checklist is prepared based on the good practice of the development cooperation agencies etc. such as;

- > JICA (2005): Basic Research on Introduction of SEA
- ➤ MONRE (2008): General Technical Guideline for Strategic Environmental Assessment
- ➤ Green Regional Development Programmes Network (2006): Handbook on SEA for Cohesion Policy 2007-2013
- ➢ OECD (2006): Applying Strategic Environmental Assessment
   Good Practice Guidance for Development Co-Operation
- World Bank: SEA performance criteria

etc.

## 2.2 SEA Review Checklist (2)

#### 1. Description of the Plan and the Baseline Conditions

- 1.1 Description of the Plan
- Is the purpose of the plan clear?
- Have the related strategies, policies and plans (e.g. environmental objectives) been reviewed and do they line up with the plan's purpose?
- 1.2 Baseline Environmental Conditions
- Have current environmental conditions (natural, social and pollution aspects) been described?
- Are there significant data and information deficiencies? How can these be patched up?

## 2.3 SEA Review Checklist (3)

#### 2. Identification and Evaluation of Key Impacts

#### 2.1 Scoping

- Are impacts scoped in a systematic and explicit manner to ensure that all relevant issues (e.g. natural, social and pollution) are covered?
- Are the stakeholders consulted in appropriate ways at appropriate times on the scope of the SEA Report?

#### 2.2 Impact Assessment

- Is the methodology of evaluation explained? Are the impacts evaluated quantitatively, when possible?
- Has the impact assessment been implemented, in accordance with the stages of the plan (e.g. Master Plan: IEE (Initial Environmental Examination), Feasibility Study: EIA (Environmental Impact Assessment)))
- Are the spatial and temporal extent of the impact, cumulative impact and positive impact described?
- Where there are uncertainties in assessing the impacts and assumptions have been made, have they been explained?

## 2.4 SEA Review Checklist (4)

#### 3. Alternatives, Mitigation Measures, Monitoring and Recommendations

#### 3.1 Alternatives

- Are alternatives (Including No-Action and Best Practicable Environmental Option, where appropriate) investigated in accordance with the stage of the plan?
- Are the alternatives evaluated in the natural, social and pollution aspects? Are their reasons given for the selection or elimination of alternatives?
- Are the assumptions and uncertainties in the alternatives explained?
- Are the stakeholders consulted in appropriate ways and at appropriate times on the investigation of the alternatives?

#### 3.2 Mitigation Measures

 Are mitigation measures (Including cost, duration and method, etc.) investigated in accordance with the stages of the plan?

## 2.5 SEA Review Checklist (5)

#### 3.3 Monitoring

 Are measures proposed for monitoring, including the responsibilities, schedule and budget etc.?

#### 3.4 Recommendations

- Have the recommendations on natural, social and pollution issues been proposed?
- Are there specific points within the process to develop the plan where the SEA can have influence over decisions or design?

## 2.6 SEA Review Checklist (6)

#### 4. Consultation

#### 4.1 Report

- Has the layout of the report enabled the reader to be able to easily and quickly find necessary data and information? Have the external data sources been acknowledged?
- In order to facilitate the readers' understanding of the report's contents, have the table of contents, abbreviations, glossary, list of references and figures been used in the report?
- Has a non-technical summary of the main findings of the report been prepared in the target reader's local language?

#### 4.2 Disclosure

 Has the report been disclosed to the public in a proper way? Has explanation material for the public (e.g. brochure) been prepared?

## 2.7 SEA Review Checklist (7)

#### 4.3 Review and Permits

- Has the report been independently reviewed?
- If necessary, has the report been approved by the relevant government authorities?
- If conditions are imposed on the approval of the report, have they been satisfied?

#### 4.4 Consultation

- Have the stakeholders been consulted in appropriate ways and at appropriate times, and how has their opinions affected the plan?
- Does the consultation pay attention to public involvement?
- Does the consultation pay particular attention to certain vulnerable groups or persons, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?

## 3. Review Results and Recommendations

## 3.1 Review Results (1)

#### **Step of SEA of PDP7**

Phase 1: Scoping

Phase 2: Data Collection and Baseline

Analysis

Phase 3: 1st Stakeholder Consultation Workshop

Phase 4: Impact Analysis and Scoring

Phase 5: Mitigation Measures and Recommendations

Phase 6: 2nd Stakeholder Consultation Workshop

Phase 7: Reflection of the results of the SFA in the PDP7

Phase 8: Submission of the SEA report to MONRE for review and comments

As of June 2010

- As of June 2010: Phase 2
- Results of SEA: Not yet
- Review focused on propriety of SEA implementation plan, such as;
  - ➤ SEA Methodology
  - ➤ Contents of SEA report, etc.

## 3.2 Review Results (2)

#### **Review Results**

- Almost covered the review items of the SEA review checklist
- Major adjustment is NOT necessary
- However, compared to the international good practice for SEA, there are some points taken into account
- Therefore, the SEA should be implemented in consideration of the following recommendations

#### **Recommendations**

- (1) Mitigation Measures for Coal Thermal Power Plants and Large-scale Hydro Power Plants
- (2) Monitoring Measures
- (3) Disclosure to the Public

## 3.3 Recommendations (1)-1

(1) Mitigation Measures for Coal Thermal Power Plants and Large-scale Hydro Power Plants

Environmental priority order list of development project



Priority of; Coal Thermal and Large-scale Hydro with Resettlement



Tend to be Low

- Importance of these plants is high for stable electricity supply
- For now, it is difficult to replace them by other means (e.g. electricity import and renewable energy)
- Reduction of greenhouse gas by large-scale hydro power plants is considerable

Necessary to utilize these plants effectively with the mitigation measures

## 3.4 Recommendations (1)-2

(1) Mitigation Measures for Coal Thermal Power Plants and Large-scale Hydro Power Plants

- (a) Coal Thermal Power Plants
- Introduction of high efficiency coal thermal power generation technologies (e.g. USC, A-USC and IGCC)
- Economically feasible CCS combined with EOR

- (b) Large-scale Hydro Power Plants with Resettlement
- Adequate mitigation measures for resettlement (Avoidance, Reduction and Compensation)
- Rearranging cascade of river to reduce the scale of dam

## 3.5 Recommendations (2)

### (2) Monitoring Measures

Monitoring measures of each development projects

will be prepared in EIAs for each projects

Monitoring plan of the SEA of the PDP7 should focus on;

"Effectiveness of the SEA" and "Cumulative Impact of the PDP7"

- (a) Effectiveness of the SEA
- Reflection of the recommendations in the approved PDP7
- Implementation of the mitigation measures

- (b) Cumulative Impact of the PDP7
- Utilization of environmental index (e.g. Total CO2 emission from power sector)

## 3.6 Recommendations (3)

#### (3) Disclosure to the Public

In general, the public is less inclined to participate in a PPPs process,

Because PPPs are more abstract and their impact is less specific compared to a project and EIA.

However, it is important to collect the opinions from the public concerning PPPs (especially vulnerable groups and persons) and reflect them in PPPs, where appropriate.

It is desirable to consider a disclosure of the draft SEA report to the public and a reception of opinions during the SEA process.



## 添付資料 3.G

## ステークホルダーミーティング 資料(IE)

# STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE POWER DEVELOPMENT PLAN VII

# OVERVIEW OF SEA APPROACH AND OBJECTIVES



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## IMPLEMENTATION BASE

Regulation on SEA according to environmental law 2005

- Subjects to have SEA report preparation- Article 14
- a. Socio-economic development strategy / planning / plan at national level.
- b. Sector development strategy, plan, for the whole country
- c. Provincial socio-economic development strategy, plan of province, city under management of Central Government, region (herein after referred as provincial level).
- d. Land use planning: forest protection development; exploitation and use of other natural resources on inter-provincial, inter- regional areas.
- e. Important economic area development plan.
- f. River basin plan on inter-provincial areas

#### 2. Carrying out SEA and SEA report preparation

#### Article 15 of Environment Law 2005

- Organization which is entrusted to prepare strategy, planning and plan as mentioned in Article 14 of this Law is responsible for carrying out SEA and preparing SEA report
- SEA report is one content of the project and shall be prepared at the same time with project report, that means in parallel with PDP 7

#### 3. Contents of SEA report

Article 16 of Environment Law 2005 stipulates contents of SEA report as follows:

- Outlines of objectives, scale and features of project related to environment
- Overall description of natural, socio-economic, environmental conditions related to project

#### CONTEXT

- The current SEA is the first time that social and environmental issues have been fully integrated into the preparation of the PDP
- It is one of the first fully integrated SEAs in the preparation of a national sector strategic plan in Viet Nam
- It is based on international best practice, adapted to a Vietnamese context and to reflect the national SEA Guidelines as prepared by MoNRE
- It builds in the lessons learnt in the pilot SEA for hydropower in PDP VI

- Forecasting environmental negative impacts which may occur when implementation of the project.
- Indicating data and assessment method resources.
- Proposing overall directions, solutions for solving environmental issues during implementation of the project.

#### 4. Review of SEA report

- According to point 1 Article 17 of the Environment Law, SEA report shall be reviewed by one Reviewing Council
- According to point 7, Article 7 of environment law 2005, MONRE shall organize council for reviewing SEA report of project which are approved by the National Assembly, Government
- According to the point 6, Article 7, Review results of SEA report are one of background for approval of projects (PDP 7).

## CONTEXT

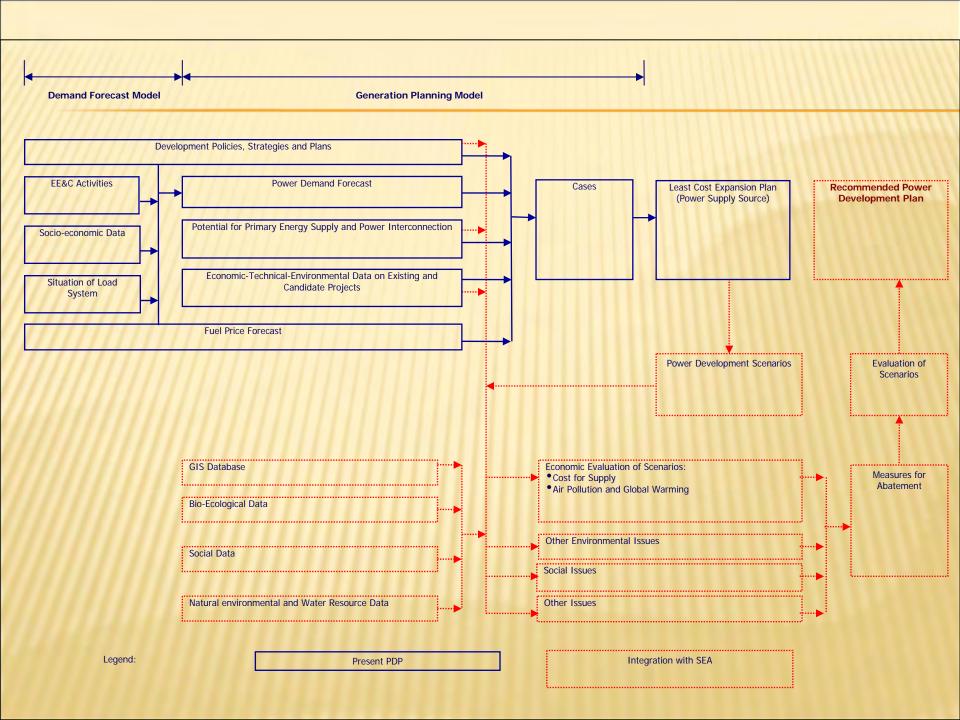
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## **Objectives of the SEA**

- Calculate and internalize the full range of social and environmental costs and benefits into the PDP VII.
- Ensure that key GoV policies on issues such as the promotion of renewable energy, climate change, environmental flows and benefit sharing are reflected in PDP VII.
- Where necessary, identify mitigation and compensation measures to reduce negative impacts or compensate people negatively affected by power development.

## **Approach**

- The valuation and internalization into the overall cost calculations for supply options of all measurable costs and benefits from different proposed sources of power generation.
- Based on quantitative and objectively verifiable indicators
- Weightings of valuations made to reflect (a) key national policy and development objectives and (b) the opinions and knowledge of key stakeholders



## Stages in the SEA

## Stage 1: Define the Analytical Framework

- Define the key indicators to measure impacts
- Establish the policy context in relation to national policies and targets
- Establish the supply and demand options and alternatives
- Define the role of GIS analysis in the overall SEA approach

# Stage 2: Data Collection and Definition of the Baseline Analysis

- Identify data availability
- Establish the parameters of the GIS analysis
- Acquire the PDP VII demand scenarios and baseline supply options
- For hydropower, identify where the analysis undertaken in the PDP VI Pilot SEA needs extension and/or amendment

## Stage 3: Initial Consultations

- First stakeholder workshop and national consultation
- Distribute and collect the Impact Matrices to relevant provincial authorities

## Stage 4: Impact Analysis and Weighting

- Quantitative analysis of the physical quantities of different impacts
- Economic valuation and development of indicators where valuation is not possible
- Weighting of values to reflect priorities of key GoV policies
- Integration of the impact valuations into the overall economic analysis
- Ranking of the power supply options, based on the internalization of impacts previously treated as externalities

# Stage 5: Identification of Areas and Options for Mitigation and Compensation

- For areas and people affected negatively by power plant and transmission line development, identify appropriate compensation and mitigation approaches
- Assess the financial implications and financing options for mitigation and compensation measures

## Stage 6: Final Consultation and Recommendations

- Interviews with key national stakeholders, to review possible recommendations for the SEA
- Final national stakeholder workshop
- Preparation of the SEA report, including the final recommendations



#### KEY ISSUES IN SEA OF PDP VII

#### 1. KEY ENVIRONMENTAL ISSUES

#### The group of Social – economic issues

- 1. Importance of PDP VII in Vietnam's social economic development.
- 2. Assurance of the national energy security.
- 3. Moving and resetlement for impacted people by power development projects.
- 4. Change of people and economic structure
- 5. Division of living standards and income between regions in Vietnam.
- 6. Contribution into poverty-alleviation movement and social fairness.
- 7. Issues of water use.
- 8. Food security.
- 9. Environmental conflict

#### The group of natural environmetal issures

- 1. Change of land use structure
- 2. Maintainance of ecosystem and biodiversity.
- 3. Save utilization for national resource consists of coal, oil, limestone.
- 4. Issues on climate change
- 5. Issues of air, water, soil pollution.

#### 2. SUGGESTED ALTERNATIVES

Increase rate of renewable energy from 4% to 5.8%

Increase rate of energy saving and efficiency from 1-3% (demand alternative) to 5-8% (period of 2011-2015) based on Nation target mentioned in National programe of Energy saving and efficiency

## 3. TOOLS

- Expert choice is used to rank of the power supply options, based on the new economic calculations that internalize impacts previously treated as externalities.
- IPCC method is used to calculate GHG emission.

GIS is used to analyse quantitative, where this is possible, of the physical quantities of different impacts, positive and negative. And map feedback from the impact matrices at different aggregation levels (individual indicator, type of impact, total impact) by mixing layers.

## UTILITY PERSPECTIVE

- Ensure the sustainable national power development plan: to obtain economic effect and environmental harmonization.
- Calculate the cost for damage and benefit from environmental and social economic indicators quantitatively and integrate the impact valuations into the overall economic analysis of each power supply option.
- Ensure that the national target and policies of climate change, environmental protection and promoting renewable energy to reflect into SEA and PDP VII.
- Suggest recommendations and feedback to PDP VII feasibly.



# Thank you for your Attention!



