

**KINGDOM OF CAMBODIA**

**NATION RELIGION KING**

**COUNTRY REPORT**  
**ON**  
**ENVIRONMENTAL IMPACT ASSESSMENT**  
**ON**  
**MAY 02 TO JUNE 02 YEAR 2000**

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## **SUMMARY**

Today, the development are increasing on every services, above all, industrial one which is continuing fast. The activities of there developments have polluted environment resources seriously. Therefore, there are just in a numbers of developing countries that have met crises of environment pollution and they have tried to fine solutions for avoiding these harmful crises. And then, they change the direction to make economy have good developments and stabilize environment. As a result to develop and strengthen economy we must estimate environment impact or making EIA every project of all developments before they start the process or they are in the middle of process. According to the importance of EIA roles in the development. they just considered that EIA process is a very important subject to solve economic development as well as the requirements of law, policy and guidelines of human resources, experiences and specific goals to achieve a suitable economic development and strengthen environment section for present and future times.

## **1. INTRODUCTION**

Cambodia is situated in South East Asia, Southwest part of the Indochina peninsula. It is located between latitudes 10 and 15 degrees North and longitudes 102 and 108 east. The total land area is 181.035 km<sup>2</sup>. From East to West is 560 km and from North to South is 440 km. The North has border with Laos and Thailand. The East and South has border with Vietnam socialism republic, the Gulf of Thailand to the Southwest. The total boulder of the country is 2.600 km of which approximately 5/6 is land and 1/6 is coast.

### **Topographic**

Topographically the country can be divided in to two distinct parts:

- The central flat land including the Tonle Sap lake and the flood plain of Mekong river, and the flat coastal areas.

- The mountain ranges and high plateau surrounding the flat land.

## **Climate**

The climate in Cambodia is tropical monsoon. There are two distinct seasons:

- The dry season from November to April and
- The rainy season from May to November

The average annual rainfall over most of the country is 1200mm. The warmest month is April when temperatures can rise above 38c and the coldest month is January. The averages mean temperature is 25c.

## **Population**

The total Population of Cambodia in 1998 was estimated 11.3 million. In the year 2000, populations approximately 14.6 million.

## **Social and Economic Development**

Cambodia is an agriculture country. It has the potential for being a net exporter of food, rice, fisheries, and forestry. The food crop production sector is estimated to have grown by 2% to 4% over the period 1989 to 1998.

## **2. BACKGROUND AND HISTORY OF EIA IN CAMBODIA**

Cambodia was damaged and lost Environment resources severely by war and the requirement of economy, so the Royal government just created Ministry of Environment in July 1993. In 1995 it created EIA group under the supply of Asian Development Bank organization. From October 1995 to June 1996 Asian Development Bank body made training course on Environment Planning and Impacts Assessment. In 1996 after the end of this course, Royal government has been necessary to develop projects, so the government made this EIA department under the control of Environment Ministry. There are four offices:

1. Administrative Office ,
2. Planning Office ,
3. Project Review Office
4. Project Monitoring Office

The Administration and Planning Office Provide assistance with respect to staffing logistic, information and finance. The EIA and Project Monitoring Office are responsible for most of the technical activities related to analyzing the potential environmental effects of a specific project or decision and produced the information needed to follow up on an EIA and to design mitigation measures where and when they are needed.

## **3. LAW, POLICY AND INSTITUTIONAL ARRANGEMENT FOR EIA**

### **3.1. Legal claims**

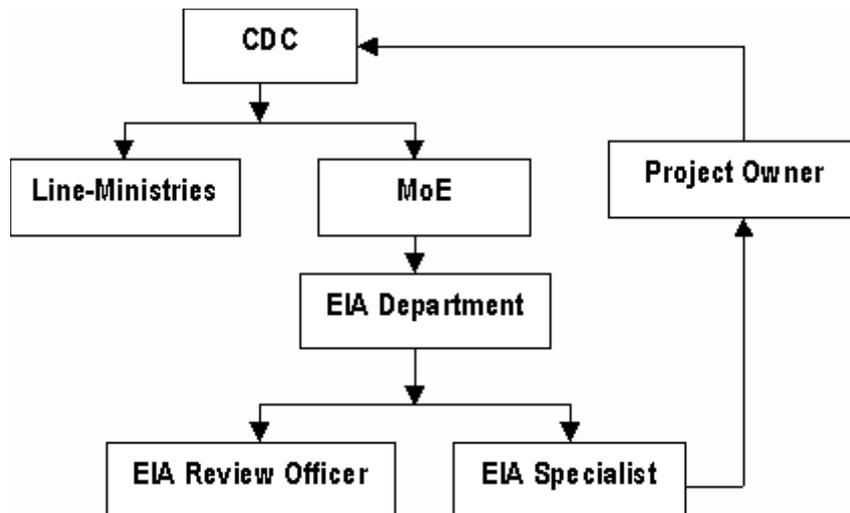
Law of Environment Protection and natural resources management were created by the National Assembly in 1996. This law was on Regional Environment Development Plan (REDP) and EIA. They connect with 5 institutions: Council Development of Cambodia (CDC) Ministry of Environment (MoE), Line-Ministry, Supporter and Public Participation. The REDP is going on, but it's not suitable to law requirement clearly. Nowadays EIA is operating. The Sub-decree on EIA process that was submitted by the Royal government on August 11<sup>th</sup>, 1999.

### **3.2. Actors involved in EIA process and division of responsibilities**

The involved in EIA process such as:

- CDC
- Project Owner
- Line- Ministries
- MoE
- EIA Department
- EIA Review Officer
- EIA Specialist

#### EIA process and division



#### Responsibilities:

- **CDC**
  - Receive the application of investment of project owner
  - Submit application forms of project owners
  - Give the information to MoE and Line- Ministries
  - Receive the opinion from MoE and Line- Ministries
- **Project Owner**
  - Application for investment with CDC
  - Application for EIA review
  - Application for submission to line-ministries and own investment
  - Prepared EIA report and make contract send to EIA department
- **Line- Ministries**
  - Give the opinion to CDC about problems that project owners proposed
  - Implement the techniques that involve project owners.
- **MoE**
  - Give the ideas to CDC about environment
  - Receive form environment review
  - Responsibility for general submission of collection and correct process of environment review.
- **EIA Department**

- Receives the application of investment EIA review project
- Give opinion to MoE about evaluated project
- Give opinion of investors for prepared EIA report and contract
- Prepare guideline for investors

- **EIA Review Officers & EIA Specialists**

- Review EIA Report
- Monitoring of Project
- Give opinion to EIA Department about evaluated project
- Conclusion and evaluation

### 3.3. Policies and guidelines

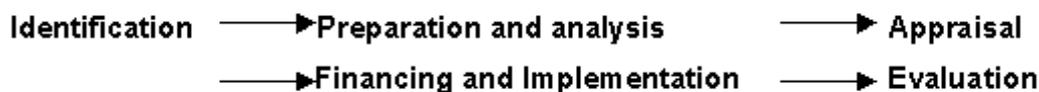
The policies and guidelines are to:

1. Promote conservation, protection and uses of natural resources in a rational and efficient manner while maintaining sustainable economic development, and enhance environmental quality including natural resources, public health, social, cultural and economic values to satisfy its current needs without compromising the needs of future generations;
2. Integrate development planning and decision –making with environmental impact assessment and consideration at the earliest stage so that harmful impact are avoided and/or minimized at present and in the future;
3. Implement an environmental impact assessment process in consonance with project planning;
4. Approve an environmental impact report for a project before the project is implemented; and
5. Foster public participation in the environmental impact assessment process in recognition that the people of Cambodia are a valuable resource of environmental knowledge and that their concerns should be considered in the project decision-making process.

### 3.4. Relationship between project cycle and EIA process

#### Project cycle

This is the main parts of the project cycle are described below:



- **Identification**

This first stage means the finding the potential project in which require investment and can generate benefit. Projects could be identified through a plan to fit within the general needs identified by a plan.

- **Preparation and analysis**

Usually, this step compares benefits to costs in a pre-feasibility study.

- **Appraisal**

The appraisal stage is a final check of the results of preparation and analysis before investment proceeds.

- **Financing and Implementation**

The project is financed, for construction and operation according to the detailed planning and analysis and the recommendations of the project appraisal.

- **Evaluation**

During and after operation, the project is evaluated to determine its successes and failures so that problems can be corrected and to learn lessons useful for future projects.

- **EIA Process**

The results of later stages can be fed back in to earlier stages which might be changed their conclusion which typically contains the following stages:

1. Screening ,
2. Scoping ,
3. Initial assessment ,
4. Draft EIA report ,
5. Review of the report ,
6. Final report and
7. Monitoring.

**1. Screening:** This procedure is used at the beginning of the EIA process to identify project and activities that are likely to have or are having, a significant environmental impact.

The purpose of screening is to determine whether substantive environmental review is required and the thoroughness of the required review s whether an EIA is necessary.

**2. Scoping:** defines and limits the scope of activities of an EIA and is essential to the Terms of Reference. It focuses on the process of the important works, which needs to be done, allowing work on less important issues to be minimized.

**3. Initial Assessment:** is sufficient to show that a proposed project does not require a more detailed or full-scale assessment. In this case, a short initial EIA Statement is written with no need for a more comprehensive EIA Report.

**4. Draft EIA Report:** If a full EIA is required, this the draft formal document which contains the results of the assessment. The contents typically include more thorough coverage of each component of the initial assessment described above.

**5. Review:** Should be review internally by the responsible government authority. However, reviews by the public and external experts can often greatly improve the quality of information, improve the objectivity of the work.

**6. Final EIA Report:** After the review, the draft EIA report is reviewed to include and reflect public and expert comments.

**7. Monitoring:** Observation of environmental variables over time and in space to determine trends. Monitoring is often a requirement for the approval of a proposed project or relicensing of an existing activity.

#### **4. HUMAN RESOURCES AND CAPACITY**

In Cambodia there is not enough human resource, both quantity and quality especially human resource of

environment sector. From 1995 till nowadays we made two environment training courses.

- First it started from 1995 to 1996 and it had about 50 trainees that come from other institutions to participate and study the Environment Impact Assessment and Regional Planning.
- Second in 1998 we studied the ways of EIA and guidelines in every sector. In this training course there were 100 trainees that come from provinces, ministries, institutions concern with environment such as Ministries: Agriculture, Industry, Tourism, Public work and transport, Development, Plan, CDC. Creations of these two training courses were to have the support from Asian Development Bank body, both budget and professors. Since the commencement of EIA department until today, we have 17 persons including one Director, two Deputy Directors, three Administrative persons and 11 Technicians that carry out this EIA tasks by having the support from Royal government and the rule of current environment ministry.

## 5. COMMON METHODS AND STANDARDS USED IN EIA

### Common methods

- **Matrix**

They are two dimensional tables to facilitate identify impact among from the interaction between project activities and specific environmental components. Generally activities associated with various phases of the project are listed along one areas and environmental components on the other. Thus one can usually describe the relationship between two sets of factors.

The matrix will be provides as a part of every environmental assessment report. The impact analysis presented in the cross impact matrix will be conducted the following procedure. The impact analysis will consider of concern in the study area. The results of the impact analysis will then be used to identify mitigation and monitoring requirements.

Two items will be initially necessary to conduct the impact analysis:

- A detailed project description, outlining the major activities that will take place as a result of the project.
- An environmental setting, that is a list of environmental resources that may be affected by the project activities.

Each possible impact of the project (i.e. combination of project activity and environmental resource) will be assessed using field data collection from the project area, results of similar project elsewhere at the Southeast Asia and professional judgment on the part of the environmental assessment team. Each possible impact will be assessed as being None, Insignificant, Significant and Ability to Mitigation Unknown, Mitigatable, or Impact Unknown. For each impact, the environmental assessment team of the time scale of effect, the spatial scale over which the effect may occur, and the magnitude of the effect. It is important to note that the assessment of impacts will be conservative in that occurrence of any items will be sufficient to assign the corresponding ranking in addition, what is provided in the environmental assessment report after the conclusion has been reached to depend upon the specific conclusion itself.

### Standards used in EIA

Ministry of Environment has adopted regulations (Prakas) for ambient environmental standards for Cambodia. Those standards, which are both numerical and narrative depending upon the parameter of concern, should be obtained from MoE and used as a guide during project design, construction, and operation. Standards for water, air, soil, and noise/vibration have been adopted to protect natural resources, public health, and public welfare. Standards have been selected that are sufficient to protect resources and the public, but which allow for the use of a certain amount of the environment's assimilative capacity.

## 6. BRIEF SUMMARY OF STUDY CASE

## Case Study on the Oil Palm Development Project

### • Background

The study area is held under title by the Friendship Agricultural Development Co., Ltd . The area consists of 5,000 hectares of logged over forestry land. The company intends to obtain more land for the planting of Oil Palm once this first phase of 5,000 hectares is successfully developed. This present land is situated on both sides of Highway 19, which runs eastwards across Ratanakiri to Vietnam. The project site is situated about 50 km East of the Bun Lung, West of Vietnam and South of Lao. The Vietnam border is only about 8 km away from the project area, while Laos is only about 100km to its North. The project site is situated in the Oyadao district. The total area is 24,422 hectares, which is fertile with green bushes and trees. Parts of the area are lowland, plateau, streams, hills and valley. Populations in total there are 9558 people among whom there are:

- 143 Khmer
- 45 Lao
- 9005 Jorai
- 275 Phnong

Most people in the district are Jorai, mainly living in collective groups or descended family groups in areas considered to be favorable for good crop cultivation, except for the Khmer and Lao mainly those setting along route 19, do business. The emphasis of the studies is on addressing all related concerns so that implementation of the project is sustainable.

### • Purpose

To develop a set of guidelines for assessing the Environmental Impacts of Oil Palm Development Projects.

### • Objectives

- To evaluate the current situation
- To identify the key issues involved
- To prepare clear and concise guidelines

### • Scope

Oil Palm plantations have the potential for causing negative environment impacts of considerable scope and magnitude. The worst impacts occur where natural forests are cleared for plantation establishment. The negative impacts of site preparation includes not only the loss of existing vegetation and the ecological, economic and social value it may have, but also environmental problem is associated with land clearance: increase erosion, disruption of the hydrologic cycle, soil compaction, loss of nutrients, and a resulting decline in soil fertility. Logging affects wildlife by the destruction of habitat, cutting up of migration corridors, increased poaching, problem of noise and pollution, and hydrologic changes affecting aquatic system. The socio-economic benefit of oil palm plantations include employment generation (more job than in natural forest management but less than in agriculture) and often some improvements in local infrastructure and social services. However these have negative aspects, particularly in remote areas. These are problems related to the labor force brought in from the outside (over loading existing local infrastructure and social services, social and perhaps racial tensions, increase health problem, etc). Sizable oil palm plantation can pose problems related to land tenure, and land and resources use rights. An environmental assessment needs to collect data on the availability and use of such foodstuffs over time by specific ethnic and economic groups in the project area and bring this information to the attention of planners.

## 7. EFFECTIVENESS, OPPORTUNITIES AND CONSTRAINTS

After the law on Environmental Protection and National Resource Management in 1996 resulted in EIA requirements for public and private development project. The law is clear that MoE, EIA Department and other agencies with authority, responsibility and interest in development resource management are excepted to coordinate with MoE in implementing the law.

## **8. CONCLUSION**

EIA Department has not yet technology and experience clearly, especially human resource and human capacity building a comprehensive EIA process at the national or provincial level and it doesn't detail legal requirement for any EIA in Cambodia yet.

Thank You !