

KINGDOM OF CAMBODIA NATION RELEGION KING

NATIONAL REPORT ON THE IMPLEMENTATION OF THE CONVENTION TO COMBAT DESERTIFICATION

SUMMMARY

I- MAJOR ECOSYSTEMS OF CAMBODIA

The natural ecosystems of Cambodia consist of tropical forests, rivers, lakes, and coastal areas. Man has influenced these natural ecosystems over thousands of years. Forest has been cleared to create Rice Growing Land, thereby giving rise to rice ecosystems. The movement of humans to live in cities, towns and villages is known as urbanization. These towns and cities can be described as urban ecosystems.

1 –1 RICE ECOSYSTEMS OF CAMBODIA

The rice ecosystems are among the most important terrestrial ecosystems to the Cambodian population in terms of food security. As in any other ecosystem there are living and non-living components and rice is undoubtedly the most important living component of the ecosystem.

1. Rainfed lowland rice or wet season rice
2. Deepwater or floating rice
3. Rainfed upland rice or Chamkar rice
4. Dry season irrigated rice

1-2- WETLANDS

The majority of Cambodia's freshwater wetlands are found around the Tonle Sap Lake and along the Mekong River and its tributaries. They comprise the Tonle Sap Lake, other permanent lakes and swamps and annually inundated flood plains. The total wetlands area increases nearly ten-fold from about 0.5 million ha in the dry season to 5 million ha in the wet season (July-September) in an average year. The Tonle Sap Lake alone increases four-fold in area from 250,000 ha in the dry season to about 1,000,000 ha in an average year, and to about 1,350,000 ha in a wet (heavy rained) year. The surface of the lake was reported to have from 2,700 km² during the dry season to approximately of 16,000 km² at the maximum level of flooding and the water level depths vary between 1m in the dry season to 9m in the wet season (Guiscafre, 1963).

1-3- RIVERS AND LAKES

Mekong River - Tonle Sap system dominates the hydrology of Cambodia. The Mekong River rises in the Tanghla Shan Mountains in the Tibetan, Plateau and flows through Myanmar, Laos, Thailand, Cambodia and Vietnam. A further 10-20% from the Sesan, Srepok and Sekong in North-Eastern of Cambodia and the remaining 10% from the rivers that drain Cambodia into the Tonle sap Lake (Pantulu, 1986). Eighty six percent of the land of Cambodia lies within the catchment of the Mekong River.

II- THE STATUS OF LAND USE AND ITS CHANGES

Human activities are continuously changing and affecting land and the landscape. In this context, the rapidly increasing world population has placed great demands on the available living space in many countries. In Cambodia, business interest takes precedence over small-scale farmers, forcing many subsistence farmers to give up their land to be replaced by industries or commercial farms with require skilled or semi-skilled workers.

2-1- LAND USAGE AND FERTILIZER USE

2-1-1- Land Usage

The cultivated area 21% is mainly concentrated in the lowland around the Tonle Sap Lake and in the South of the country, on the North side of the Mekong River. The Uplands crop/fruit garden occurs especially along the banks of the main rivers.

The main constraints rely to soils in crop production in Cambodia are:

- The lost of soil fertility in cultivated areas cause from poor soils management and cultural practices
- Devastation and its erosion cause from the process of deforestation and shifting cultivation of ethnic groups in uplands slope
- Drought and flood cause to soil degradation and erosion
- High concentration of acidity and/or salinity in some dry season rice production areas
- Large change fluctuation of environment as increase big gape of temperature cause to soil moisture content and soil fertility
- Farmers have a very limited input to improve soil fertility
- Low literacy cause the constraints to adopt the new modern technology to improve soil fertility
- Unavailability of credit in rural areas to purchase fertilizers
- Poor fertilizer application and use cause the destruction in soil structures and soil texture

2-1-2- Fertilizer Use

Fertilizer application, together with modern varieties, irrigation and other improved management practices has been driving the growth in food production in South-

East Asia over the past 25 years. Fertilizer use in Cambodia, however, has been very small as compared to the other countries in the region. Cambodia farmers applied between zero and 8,000tons of organic fertilizers (NPK) per annum in the period 1965 to 1990, but with upwards of 40,000tons per year had been applied for the last two years (FAO unpublished data).

2-2- THE CHANGE IN AREAS OF RICE FIELD ECOSYSTEMS

The main causes for rice ecosystems changes are observed to be from basic factor: warfare, population growth, poverty, security issues and development trends. It is basically ascertained that the economic development, mainly in the agriculture sectors, has been much more intensified during last decade, controversy sometimes to the wise use concepts or sustainable development (for examples: rice fields expansion, over-fishing, over-grazing).

2-3- THE CONFLICT USES OF AREAS

There have been presently conflicting uses of rice fields, as due to various development practices:

- Agricultural developments: rice and other crops harvesting (traditionally) and rice-fish farming
- Industrial development: many rice fields have been filled for constructions of factories, manufactures and handicrafts, building of many new settlements and other as well
- Other building and infrastructures

2-4- THE IMPACT ASSESSMENT TOWARDS HUMAN ACTIVITIES

In Cambodia, the major root causes of soil erosion are deforestation, poor agricultural activities (shifting cultivation) and gemstone mining activity in the area of border between Cambodia and Thailand. The high erosion has taken place at the North-East mountain ranges and high plateau along main tributaries of the Mekong River, and at the North-West high plateau, where sediment flows into the Tonle Sap Lake.

2-5- LAND ISSUES IN CAMBODIA

One of the major concerns regarding public land in Cambodia is the number of leases and concessions that have been made in recent years. Problems to the granting of these leases and concessions include:

- a lack of policy framework and accurate information to guide land use allocation;
- selling of national assets for very low prices to businessmen and foreign investors;
- the commitment on the development of agricultural crops in the land concession areas not been done by many investors and/or stakeholders from both local and external

The suggestion for optimizing use of Cambodia's land resources include:

- incorporate social, environmental and economic costs when considering the benefits of any land development;
- consider the public assets for future generations needs;
- introduce and implement measures to protect soil and water resources (to prevent floods, ensure safe water supply, and protect farm production);
- ensure capability of land-use allocation with local communities who use or need access to the same piece of land.

III- THE SOCIO-ECONOMIC IMPACTS

However, today's Cambodia not only can not provide rice into the external market, but also does not produce enough rice for local consumption too. In the question of why Cambodia faces food shortage? The answer is many: the large population growth, while the agriculture land is continued to decrease has long been a major driving growth in demand. The chronic continuation of civil war, which is lead to the massive destruction in economic and social infrastructures, but the more predominant of its was the drastic changes in natural conditions, in which farmers could not adapt to its changes.

IV- THE IMPLEMENTATION OF THE NATIONAL POLICY ON THE IMPLEMENTATION OF CCD (Legal, Institutional and Management Aspects)

4-1- LEGAL ASPECTS

The constitution of the Kingdom was adopted in September 1993. And over two dozen laws have been adopted since 1993, including the land management, urbanization and construction law, and the laws establishing the rights and responsibilities of various ministries. There are many other laws that are still awaiting execution by Parliament.

4-1-1- Existing Legislation Related to Environmental Management

A- Pre-1993 Laws:

B- Post - 1993 Laws:

- **Law of Land Management, Urbanization Planning and Construction**
- **Law on Environmental Protection and Natural Resource Management**
- **Sub-Decree on Construction Permission**
- **Royal Decree on Creation and Designation of Protected Areas**

RATIFICATION OF INTERNATIONAL CONVENTIONS

D- Forestry Law

This law being prepared by the National Commission on Forestry Policy Preparation and Reform, Ministry of Agriculture, Forestry and Fisheries (Department of Forestry and Wildlife), and will be submitted to the National Assembly by the end of 2000.

E- Mining Law, Petroleum Exploration Law and Factories Law

These laws were submitted to the council of Ministers for reviewing and will be adopted by the Government this year and then it will be submitted to the National Assembly.

4-2- INSTITUTIONAL AGENCY

The Government agencies responsible for water resource management are following:

- 1- Ministry Agriculture Fishery and Forestry
- 2- Ministry of Environment
- 3- Ministry of Rural Development
- 4- Ministry of Land Management, Urbanization Planning and Construction
- 5- Ministry of Water Resource and Meteorology; and
- 6- Other Institutions concerned

V- THE STRATEGIC POLICY ON THE IMPLEMENTATION OF THE CCD

5-1- The Mitigation of Drought and Flood

The Kingdom of Cambodia is fully depending on the Agricultural Sector, and its play as the main fundamental base of the development, because more than 80% of Cambodia Population are farmers. In this regards the Royal Government of Cambodia has foreseen that the major issues of social stability in which the main work is "Water Policy" (53 projects has been launched in 13 provinces and municipalities from 1998-2006.

5-2- The Collaborative Activities with International Agencies

To reach these goals and objectives the Ministry of Agriculture, Forestry and Fisheries pays much attention on Human Resources Development and Institutional Strengthening through Capacity Building. Improvement of Agricultural Infrastructure (irrigation and roads) that many base upon Technical Assistance, Grant Aids and/or loans from FAO, IMF, WB, ADB, USAID, AusAID, JICA, DANIDA, EU, IFAD, MRC-International, UNESCO and other donor communities as well. For the long-run sustainable development non-paradoxically needs sustainability in natural resources management. In this context, the Law in Forest Management Reform (Forest Concession Law), Law in Community Forestry, many other as regulations and PRAKAS such as Depression of Anarchy Activities in Forestry, had and have been prepared in close technical assistance with foreign experts from World Bank, Asian

Development Bank and many other from International Community such as FAO, GTZ, OXFAM, JICA.

5-3- Future Recommendations Policy on the Implementation of CCD

To achieve Sustainable Growth- growth consistent with the needs and constraints of nature-we need to secure the link between environmental and economic policies at all levels of government and in all sectors of the economy. Harmonizing economic expansion with environmental protection requires a recognition that there are environmental benefits to growth. However, today's Cambodia is not in the full capability (both technical, financial and institutional) to combat desertification, therefore, the following policy recommendations should be taken for future:

1. The more clear policy concerned should be developed
2. Immediate enforcement of the national economic (both micro- and macro-economy)
3. Foster building human capital
4. Institutional Strengthening, improving the coordination between pipe line ministries
5. Build the close cooperation with: UNCCD-NETWORK, UNESCO, GEF and other international community concerned