

(Final Draft Report)



Lao People's Democratic Republic

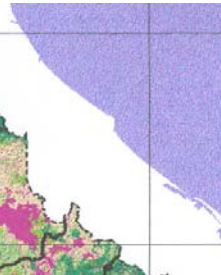
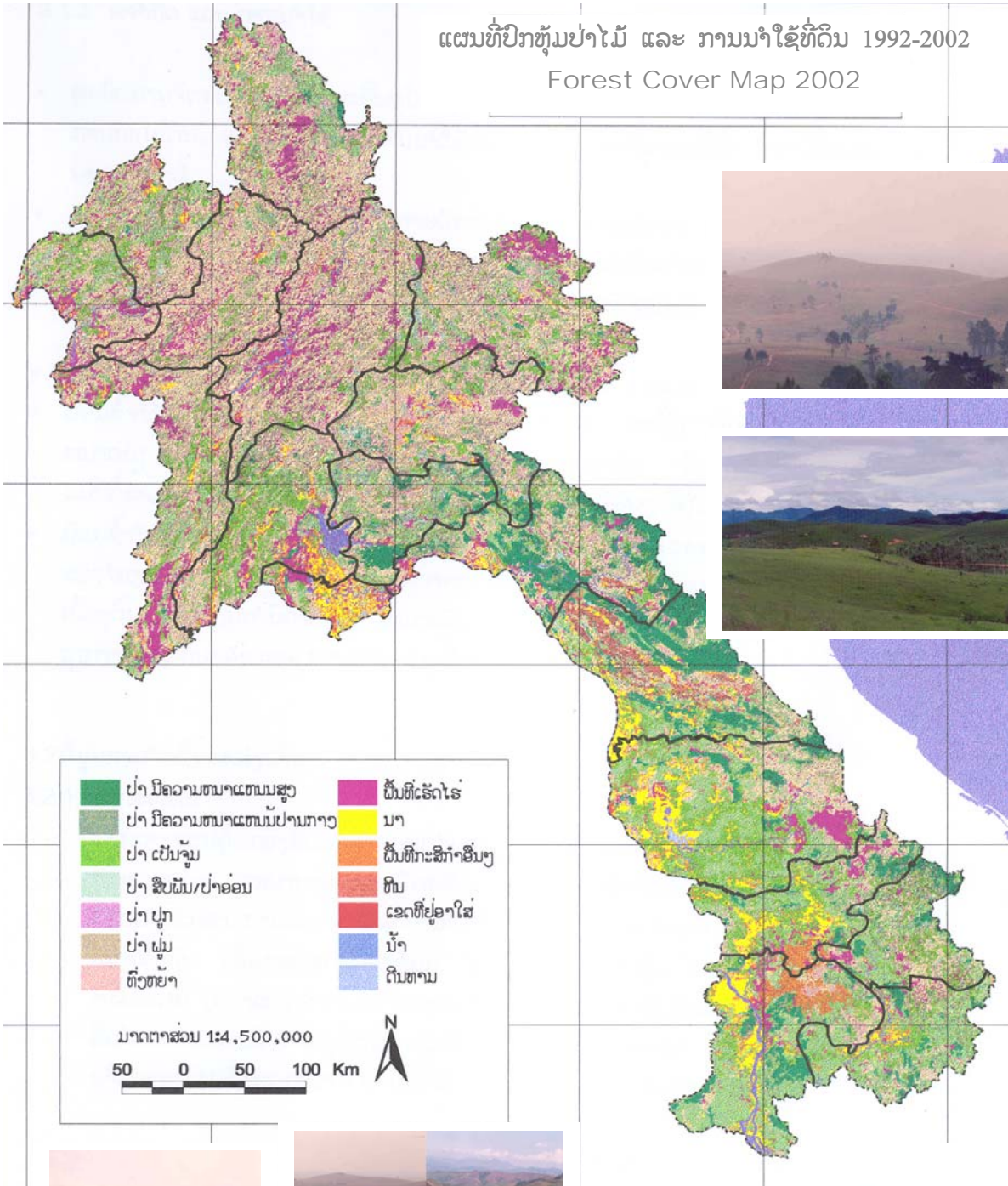
Third National Report on the Implementation of the United Nations Convention to Combat Desertification

Submitted to the United Nations Convention to Combat
Desertification (UNCCD)

**Prime Minister' Office
Science Technology and Environment Agency**

31st May 2006

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Forest Cover Map 2002



LIST OF ABBREVIATIONS

°C	Degree Celsius
ADB	Asian Development Bank
AEZ	Agro-Ecological Zone
ASEAN	Association of South-East Asian Nations
AusAID	Australian Aid Agency
CRIC	Committee for the Review of the Implementation of the Convention
CDM	Clean Development Mechanism
COP	Conference of Parties
CPC	Committee for Planning and Cooperation
DANIDA	Danish International Development Agency
EC	European Community
EIA	Environmental Impact Assessment
EMMU	Environmental Management and Monitoring Unit
ENSO	El Niño-Southern Oscillation
EST _s	Environmentally Sound Technologies
ESTIS	Environmentally Sound Technologies Information System
ETPA	Education, Training and Public Awareness
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GEF	Global Environment Facility
GMS	Greater Mekong Subregion
GOL	Government of Lao PDR
GTZ	Gesellschaft für Zusammenarbeit
ICT	Information Communication Technologies
IFAD	International Fund for Agriculture Development
IUCN	World Conservation Union
JICA	Japanese International Cooperation Agency
Lao PDR	Lao People's Democratic Republic
LFNC	Lao Front for National Construction
LNCE	Lao National Committee for Energy
LNMC	Lao National Mekong Committee
LWU	Lao Women's Union

LYU	Lao Youth Union
MoAF	Ministry of Agriculture and Forestry
MEAs	Multilateral Environmental Agreements
MRC	Mekong River Commission
NAP	National Action Programme
NAPA	National Adaptation Programme of Action
NCSA	National Capacity Self Assessment
NEPF	National Environmental Protection Fund
NES & AP	National Strategy on Environment and Action Plan
NEC	National Environment Committee
NGPES	National Growth and Poverty Eradication Strategy (NGPES)
NGO	Non-Governmental Organization
NAFES	National Agriculture and Forestry Extension Service
NAFRI	National Agriculture and Forestry Research Institute
NORAD	Norwegian Agency for Development Cooperation
NSC	National Statistics Centre
NSEDP	National Socio-Economic Development Plan
NUoL	National University of Lao PDR
PMO	Prime Minister's Office
SIDA	Swedish International Development Agency
STEA	Science Technology and Environment Agency
TCWG	Technical Coordination Working Group
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
UNITAR	United Nations Institute for Training and Research
UNIDO	United Nations Industrial Development Organization
WB	World Bank
WMO	World Meteorological Organization
WRCC	Water Resources Coordination Committee

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Executive summary

Lao People's Democratic Republic (Lao PDR) joined the United Nations Convention to Combat Desertification/Drought (UNCCD) in September 1996. The first and second national report on implementation of the UNCCD was reported and updated in 2000 and 2002. Since the National Action Program on Combating Drought/Desertification (NAP) was issued in 1999, Lao PDR has worked to combat the land degradation and drought. The main programs activities were integrated in the "strategic vision for the agriculture sector" which was finalized in 2000.

In Lao context, desertification refers to the land degradation and seasonal drought caused by inappropriate land use practices such as slash and burn agriculture, deforestation, overgrazing, etc. Lao PDR is confronting with land degradation, soil erosion and seasonal drought which are some forms of desertification. The recent changes in climatic events, particularly the increasing frequency of dry events notably by El Nino, have increased new emerging climate pattern called seasonally aridity. The dry spell can extend 6 to 7 months. Huaphane, Xiengkhuang, Savannakhet and other provinces are suffering from this disaster.

Activities to combat desertification and drought in Laos are related to the national priority programs. They cover issues concerning to forestry, water resources, biodiversity, natural disasters, climate change, flood and drought prevention, environmental public awareness. A collaboration group for the UNCCD implementation was officially established.

The preparation of this report was led by the National UNCCD focal point, and supported by United Nations Convention to Combat Desertification Secretariat. Preparation activities included data collection; information formulation was conducted since the end of December, 2005. Two workshops were organized. The first workshop was to introduce the guideline and structure the report and collect preliminary data. The second workshop was to present and exchange idea and recommendation on the first draft report. There were more than 40 Participants from relevant stakeholders attending the workshop.

The consultation workshop on 20th January and 10th April, and 3rd May, 2006 provided useful inputs to the Report. Local consultants from the Faculty of Forestry, the National University of Laos (NUoL), in collaboration with UNCCD Technical Coordination Working Group (TCWG) formulated the first draft of this national report under the UNCCD help guideline. In addition, the regional adviser on environment and sustainable development of UNESCAP, provided significant comments and technical advice to finalize this report. The UNCCD Secretariat

has kindly facilitated the transfer of financial support from IFAD and provided useful policy advice regarding the preparation of the Report.

Throughout the preparation of this report, our sincere gratitude to the director general cabinet of STEA, director general of the Department of Environment (DOE), Director of Soil Survey and Land Classification Center, National Agriculture and Forestry Research Institute (NAFRI), Department of Meteorological and Department of Land Planning and Development that provide valuable advice and guidance so as to ensure the successful completion of this Report in a timely manner. In addition, special thanks are to the participants of the national review workshop who have provided many constructive comments, which have greatly improved the quality of the Report.

Chapter 1: Introduction

1.1 Background

Lao PDR joined the UNCCD on 20 September 1996. In the context of Lao PDR, desertification¹ refers to land degradation caused by agricultural development, deforestation and seasonal drought.

In accordance to the Article 26 of the UNCCD and the decisions of the Conference of the Parties (COP), particularly decision 11/COP.1, each Party member to the Convention is required to report, through the UNCCD secretariat, on measures undertaken to implement the UNCCD.

The Government of Lao PDR prepared its National Action Program (NAP) on combating desertification in September 1999, and this NAP will be updated in the next few months. The Government of Lao PDR submitted its first national report on the implementation of the UNCCD to the COP 4 in December 2000, and the second report in April 2002. This third National Report is prepared in response to the Decision 9/COP.7 on the Implementation of the UNCCD.

1.2 Methodology

This report is prepared base on the guidelines and methodology provided in the Help Guide (ICCD/CRIC(5)INF(3)) prepared by the UNCCD Secretariat. Some modifications are necessary due to the national circumstances of the country.

The preparation process began with the review of the first and second National Reports. All relevant documents and information from line ministries, sectoral institutions and agencies were collected. Interviews and consultation with the key stakeholders were conducted since the end of December, 2005. Two workshops were organized. The first workshop was to introduce the guideline and structure of the report and collect preliminary data. The second workshop was to present and exchange idea, comment and recommendation on the first draft of the report. There were more than 40 Participants from relevant stakeholders attended the workshop.

1.3 Structure of the Report

This report is composed of an Executive Summary and nine chapters. *Chapter 1* gives an Introduction to the Report, which provides the background, methodology and the structure of the Report; *Chapter 2* provides the national circumstances and Country Profile; *Chapter 3* describes the strategies and priorities established within the framework of sustainable development plan and policies. *Chapter 4* describes the institutional framework and measures taken to implement the UNCCD, including the NAP and linkages achieved with sub-regional and regional action programs; *Chapter 5* highlights the participatory and

¹ Article 1 (a) of the UNCCD defines "Desertification" as "land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities".

consultative processes in support of the preparation and implementation of NAP, and partnership agreements with developed country parties and other interested entities; *Chapter 6* discusses measures taken and planned within the framework of the NAP, including the establishment of technical programs and functional integrated projects to combat desertification, and effectiveness of measures in local capacity building; *Chapter 7* discusses the financial resources and technical assistance/cooperation needed for supporting the implementation of the NAP and UNCCD; *Chapter 8* reviews the benchmarks and indicators to measure the progress and assessment; and *Chapter 9* provides conclusions and recommendations.

Chapter 2: National Circumstances and Country Profile

2.1 National circumstances

2.1.1 Geography

Lao PDR is distinguished topographically by a mountainous area extending throughout most of the country. Some small areas of lowland are available along the southern and southwestern borders. It has a land area of 236,800 square kilometers, stretching more than 1,700 km from north to south and between 100 and 400 km from east to west. The nation shares borders with Cambodia, China, Myanmar, Thailand and Vietnam.

The mountainous area covers about 70 percent of the country. The country is divided into northern section of heavily forested mountain ranges and plateaus cut deep, narrow valleys and gorges and a southern section containing more sparsely forested limestone terraces. The maximum elevation is Phou Bia in the north (2,820 meters). In the south, the maximum height reaches about 1,980 meters above the sea level.

2.1.2 Climate

The climate is monsoon tropical, but wide variations in temperatures occur in different areas because of variations in elevation. The wet summer season prevails from May to October, with rainfall averaging about 1,700 millimeters (about 70 inches). A dry, cool season extends from about November to February. The remainder of the year is hot and humid.

The sub-tropical climate is dominated by the southwest monsoon which brings high rainfall, high humidity and high temperatures between mid April to mid October. Average temperature ranges from around 20⁰C in mountainous areas and 25-27⁰C in the plains. There are three main agro-climatic zones:

- The mountainous north: with elevations over 1000 m and steep slopes is dominated by moist to dry subtropical climate with annual rainfall between 1500-2000mm.

- The mountainous parts of center and south: with elevations between 500-1000 m generally moderate slopes is dominated by a tropical monsoon climate with annual rainfall from 2000-2500 mm on the Bolovens plateau.
- The plains: they are located along the Mekong river and its tributaries including the Vientiane plain, the narrow plain Bolikhamxay province and the larger plain from northern Khammouane province to the southern Savannakhet province and a series of smaller plains in the southern provinces (Champasack, Saravane, Attapeu) these areas are inhabited by more than 50 percent of population and are dominated by a moist to dry tropical climate with annual rainfall from 1200-2000 mm.

2.1.3 Demography

The country is administratively divided into 16 provinces and one municipality (Vientiane). The country has 142 districts. The current population is 5.6 million peoples (NSC, 2005). Among those population, 70 percent of them living in rural areas while 66 percent relying directly on subsistence agriculture. Importantly, About 39 percent of the Lao people are living under poverty line, the Lao PDR is the second least populated country in Association of South-East Asian Nations (ASEAN) with the lowest population density (23 persons/km²). The country has a young population, with 54 percent aged of 19 and below, and 62 percent aged of 24 and below (NSC, 2003).

2.1.4 Socio-economic development

Since the liberation in 1975, the Lao government pays attention to heal the wounds from war and efforts to improve people's living conditions. In 1986 the government adopted the New Economic Mechanism, moving economic activity away from a central command system towards a market-based approach-allowing the private sector active in socio-economic development. Since then there has been considerable progress, with steady improvements in key social and economic indicators. Economic growth rate is increasing in average of about 6 percent. Despite the Asian financial crisis during the late 1990s, the macro-economic climate has remained stable and growth. At the same time, the Lao PDR has become an active partner in Association of South-East Asian Nations and in other initiatives for regional cooperation.

With an annual per capita income of US\$ 356.80, Lao PDR is classified by the UN as a least developed country (LDC) and is one of the poorest countries in the East Asia and Pacific Region. The country's human development index ranking is 143rd among 175 countries with this level of poverty (MDG, 2004). The economy is essentially agrarian: agriculture accounted for more than 50 percent of GDP in 2002, while services accounted for 26 percent and industry for 24 percent. Agriculture is even more significant when it comes to employment approximately 80 percent of people depend for their livelihood on agriculture and the rearing of livestock. However, the Lao government plans to exist the group of LDCs by the year 2020.

The main country product exports include electricity from its hydroelectric plants, some gold, lignite, copper, coffee, tin, textiles, and wood products.

2.1.5 Natural disasters (Disaster in Laos comparing to the nearby countries is not severe because of ...)

Due to its location and topography, Lao PDR has less severe and fewer number of natural disasters than its neighboring countries. However, certain parts of Laos suffer from these disasters. These disasters include droughts, floods, forest fires and soil erosion and so on.



Droughts, this type of disaster occurs over the whole country. However, the areas with most experience with droughts are in the central and southern provinces. The droughts often effect to the agricultural production of the farmer.



The flooding is the main natural disaster in the country- both in terms of frequency and consequences. There are floods along the Mekong River every year particularly in the central and southern parts of the country. Those areas represent almost a half of the plain area surface of the country where agricultural production concentrate. Flooding in the north and east is rare. However, Oudomxay and Luangnamtha provinces have been affected in the recent year.

The major floods occurred in the country since the last 40 years severe in 1966, 1978, 1983, 1990, 1991, 1993 and 1995. Usually, floods are experienced from August to September in the central and southern provinces of the country. The government began in recent years to collect data at the most affected areas from flooding by using RS/GIS aimed to mitigate the impacts in the future.



Forest fires always occurred in Lao PDR. They are mostly observed during the dry season (February to April), particularly in the mountainous north and northeast. In 1998, an unusual drought as a possible consequence of the year's El Nino occurred and led to much higher incidence of forest fires.

Each year, Lao PDR suffers with losing of forest cover due to fires from human activities.



Erosion and Sedimentation, as Lao PDR is mountainous, soil erosion seems to be tremendous especially where the forest or vegetation cover is depleted. The predominant soil types and heavy rainfall data and topography condition of the country suggest that Lao PDR is susceptible to erosion. A recent analysis of sedimentation data in the lower Mekong basin suggests that sediment rates in southern parts of Lao PDR have increased

substantially over the past twenty five year and are among the highest in the region, although the exact causes for the increase have not yet been determined.

2.1.6 Land degradation in Lao PDR: causes and issues

Land degradation is a worldwide phenomenon impacting nearly every country. Although the Lao PDR is rich in natural resources, including water and forest resources, it has been confronting with land degradation caused by deforestation due to improper agricultural practice and timber extraction. In addition, the seasonal drought, which is compounded by the increasing frequency and magnitude of El Niño, has also contributed to land degradation. During the El Niño years, extended dry spell can last as long as 6 to 7 months, this has caused severe long term damages on soil condition and ultimately reduction of the soil capacity to sustain crop yields. Land degradation has exerted tremendous pressures on affected communities especially, in the rural remote area. For further information on the figure of vulnerable land to degrade, please refer to the country profile annex 1.

Chapter 3: Strategies and priorities established within the framework of sustainable development plan and/or policies.

3.1 National plans and strategies available in other social, economic and environmental areas

The government of Lao PDR developed a national socio- economic development strategy to the years 2020, and action plan to 2010 in various sector strategies and action plans. This section presents progress on some sectoral strategies, actions as well as achievements over the reporting period.

Guidelines and objectives through the first 5 year of the national socio-economic development plans have been set and translated these into each sector, active focusing on poverty reduction and highlighting priorities for industrialization and modernization.

The strategy and action plan called for special attention to protection of environment, and sustainable use of the natural resources. The government's

goal, in the environment and natural resources management area, is the sustainable management of resources through encouraging prevention and restoration of environmental degradation such as reforestation and prevention of water source's forests, reducing unsound logging practices and promoting domestic wood processing industry to increase value added products for exports.

3.1.1 National Strategy on Environment to the years 2020 and action Plan for the year 2006-2010.

The national environmental management strategy is formulated to provide the general direction, targets, programs and projects on environmental protection to be implemented in short term and long term-up to the year 2020. The strategy has been considerably successful in providing broad guidelines for sector and provincial specific policies and strategic action plans. The plan also encourages and foster the involvement and commitment of the Lao people in the course of environmental and natural resources management in line with the socio-economic development of the nation; to give impetus to the implementation of the environmental protection law and other environment and natural resources related laws. It also serves the commitment of the Lao PDR in its membership of regional and sub-regional environmental treaties and cooperative agreements. The strategy is also aimed at securing sustainable development, contributing to the poverty eradication and improving people's livelihoods.

The development process of the national strategy and action plan on environment corresponds with the guiding principles of the UNCCD. The process has effectively involved the participation of all key stakeholders such as key ministries, provincial level, mass organization and local communities etc... at villages, districts and provinces.

In terms of achievements and relation to the NAP implementation, STEA managed to establish environment management and monitoring unit (EMMU) under key line ministry, provincial and districts offices as important technical teams of the province and district with the responsibilities to supervise environmental aspects of all community environmental activities. Especially environmental mitigation measures those to do with land degradation.

3.1.2 Forestry Strategy to the year 2020 of the Lao PDR

The Lao PDR is particularly endowed with valuable, productive and ecologically unique forests which are a vital economic resource that provides essential contributions to the consumption and income of rural population, especially the rural poor. Some 80% of the population relies heavily on the forest for timber product, food, fuel, medicines and spiritual protection (MoAF, 2005). The current primary forest remains only 41.5 percent (or 9.8 million ha) as compared to 47.2 percent in 1992 and 70 percent in 1960s.

The direct causes for the loss are forest clearing and burning; unsustainable shifting cultivation practice, uncontrolled logging and conversion to agriculture

and other land uses with the underlying causes of widespread poverty, rapid population increase and weak law enforcement (MoAF, 2005).

The formulation of Forestry Strategy 2020 (FS-2020) was initiated in September 2000. Since then, several consultations and workshops were organized for review of the status and issues of the sector and a land use and forest cover survey was conducted to understand resource situation and to analyze causes for changes in land use and forest cover. After a series of consultations with relevant agencies, donors and other stakeholders, the FS-2020 was endorsed by the Government in early 2005.

The government vision on forestry sector by 2020 is to continue the vigor and leading role of forestry sector contributing to the socio economic development strategy. It encourages participation of villagers for sustainable forestry management with technical advices from the local government. Commercial wood plantation and NTFP management and processing by farmers and private sector are promoted with supervision from the well trained staffs from local and central government.

The strategy addresses to 4 targets on forestry sector as below:

1. to improve quality of existing forested area of about 70 percent of the total land area by naturally regenerating up to 6 million ha and planting up to 500,000 ha in degraded forest area as an integral part of livelihood support system encompassing stable system water supplies and prevention of natural disaster.
2. to provide a sustainable flow of forest products for domestic consumption and to generate household income through sale and export, thus contributing to livelihood improvement, fiscal revenue and foreign exchange earnings whilst increasing direct and indirect employment.
3. to preserve the many species and unique habitats, which are, for different reasons, threatened both within the country and elsewhere.
4. to conserve environment including protection of soil, conservation of watershed and climate.

3.1.3 The Government's Strategic Vision for the Agricultural Sector

The Ministry of Agriculture and Forestry formulated strategic vision for the agriculture sector in 1999. The objective of this vision is to explain and capture the government's policies, strategies and program linkages for the agricultural sector. The strategic vision differentiates agriculture development strategy on two different geographic agriculture lands: the flat land and the sloping land.

For the flatland areas, the strategy is to maintain and accelerate the pace of agricultural diversification and intensification with increased productivity per unit of land, improved value added processing and expanded marketing and sales. Market forces are now driving this process. The policies and strategies support

and maintain the pace of market integration in the flatland areas and gradually expand the market economy to the sloping lands.

For the sloping land, the problems are different due to remoteness, inaccessibility, endemic rural poverty, poor credit and capital accessibility and other factors. The strategy emphasis on transforming shifting cultivation farming systems a way from “low-input: low output” systems in order to stabilize communities, enhance resource productivity, improve the socio-economic, environment and minimize the degradation of the natural resources.

The strategic vision ensures agriculture production development in a sustainable and environmental sound manner for both agricultural lands. In addition, the vision highly contributes and corresponds with the Lao UNCCD framework as to minimize the land degradation and the rural life improvement.

3.1.4 Government’s Water Strategy and Action Plan to the year 2020

The government’ water resource coordination committee was prepared in view of the commitment to full fill the objectives of the international water, Mekong River Committee (MRC) and the country’s policies and strategy on sustainable use and water resources management. In order to support the long-term development objectives the water sector strategy and action plan address the following issues:

- (a) prepare water resources management plans for priority rivers;
- (b) prepare water distribution plan for each river body that have high levels of water use and that are suitable for multipurpose water resources development projects;
- (c) create a setting in which different sectors can make full use of existing information by aiming at complete and effective data management;
- (d) establish a centralized data compilation center;
- (e) improve and expand the meteorology network;
- (f) concentrate on capability building, human resources development, and integrated river basin development planning.

The capacity building is crucial for the implementing of the water sector strategy and action plan, particularly at community level.

3.1.5 National growth and poverty eradication strategy

In Lao context, Poverty refer to lacking of ability to fulfill basic human needs such as not having enough food, lacking adequate clothing, not having permanent housing and lacking access to health, education and transportation services.

In 2003, the Lao PDR embarked on a process to create its own national poverty eradication strategies based on local needs and priorities, which culminated in the finalization of its National Growth and Poverty Eradication Strategy (NGPES)⁵

The NGPES is the strategic framework under which all of the Government's future growth and poverty eradication programmes will be developed and implemented. It has a particular focus on the improvement of the poverty situation in the poorest districts. The main objectives of the long-term development strategy are:

- to sustain economic growth with equity at an average rate of about 7 percent, considered as the necessary rate for tripling per-capita income of the multi-ethnic Lao population by 2020.
- to halve poverty levels by 2005 and eradicate mass poverty by 2010.
- to eliminate opium production by 2006 and phase-out shifting cultivation by 2010.

3.1.6 Millennium Development Goals²

The government of the Lao PDR endorsed the Millennium Declaration at the UN Millennium Summit in September 2000. The Declaration sets the overall goals and specific targets with a view to reducing human poverty. These goals are to:

1. Eradicate poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development.

Each goal of the MDGs, especially the goal to ensure environmental sustainability through integrating the principles of sustainable development into country policies and programs in order to reverse the loss of environment and natural resources that include land degradation, deforestation, water pollution and wildlife depletion is relevant to the NAP implementation of UNCCD.

3.2 National plans or strategies in the field of combating desertification developed prior to the UNCCD NAP.

3.2.1 National Action Program on Combating Drought/Desertification

The National Action Program on Combating Drought/Desertification (NAP) was written in 1999 by cooperation of the National Disaster Management Office (NDMO) and coordinators from Irrigation Department, Meteorology Department, Soil Research center, Forestry Department and Environment Department as first guideline to combat drought and desertification in Lao PDR. The main objectives

² In 2000, at the United Nations Millennium Summit, 189 world leaders adopted the Millennium Declaration and agreed to collective commitments to overcome poverty through a set of eight mutually reinforcing interrelated time-bound goals (MDGs) with related targets. The MDGs synthesize the goals of 1990s global UN conferences and provide an accountability framework and global partnership for progressively eradicating poverty in all its dimensions. The MDGs are at the forefront of the global development agenda and represent the international community's commitment to eradicate poverty by 2015.

of the NAP include food security, stabilization and reduction of slash-and-burn cultivation, conservation of watershed forests, enhancement of livelihoods of the farmers and poverty reduction.

The NAP comprises of four components: Training and public awareness, prevention and mitigation, preparedness and relief. The components of drought management plan as follows:

Training and public awareness	Prevention and mitigation	Preparedness	Relief
Strengthening capacity of the national institutes and capability of the support staff for forecasting;	Feasibility studies to assess the potential and feasibility of water harvesting and conservation work	Improvement of drought forecasting and early warning system	Post-disaster assistance strategies, including institutional mechanisms for administering relief programs, effective food delivery system
Strengthening local capacities in the planing and implementation of water conservation works. Including training of provincial and district staff by providing technical support to local communities	Area specific studies: master plans for water management (irrigation and soil/water conservation, water budgets to optimize use of reservoirs and ground water sources	Contingency plans for droughts(line Ministries and Agencies) including: drinking water, food delivery, public health and nutrients for children, fodder and nutrients for livestock, adequate resources at the operational level	Data collection and reporting on damage and needs assessment
Public awareness campaigns aimed at enhanced community mobilization	Drought insurance and self-financing	Calamity relief fund	
Sensitization programs to advocate drought mitigation and preparedness to senior officials and decision makers	Study on Local vulnerability Reduction Measures, building on the considerable local knowledge and coping mechanisms		Employment Generation (including drought mitigation works)
	Introduction of simple low-cost irrigation technologies, Generation of power for uninterrupted power supply to the agricultural sector (and other fuels), Employment generation		

Currently, we have detail programmes for implementation. However, the programmes have not effectively implemented at the community level. The key reason is lacking of capacity in terms of technique and fund.

3.2.2 Key Legislations or Laws

Since early 1990s, the Lao government has issued several regulations and laws in relation to UNCCD as following:

Legislations	Regulated activities	Key contents related to UNCCD
Land law (1997)	Provides rules on management, protection and use of land	All individuals and organizations have obligation to protect the land to ensure that there is no soil erosion, land slice, soil degradation and negative impact on the natural or social environment
Forestry law (1996)	Provides principles, regulations and standards for the use of forest lands and resources. Promote the conservation and rehabilitation of forest resources	Specified procedures for getting approvals from authorized agency is required for individuals and organizations to process and use natural forest Individuals and organizations have obligation to preserve forest resources including water sources, marine animals and wildlife
Water and water resource law (1997)	Regulates the management, exploitation, development, protection and sustainable use of water and water resources	MoAF is responsible for the survey and inventory of water resources Classifies scale of water use into small, medium and large, the latter two require permits
Mining Law	Provides a system of management for the conservation, exploitation, mining and processing of minerals for local consumption and export	Licensees are required to preserve and restore the land utilized during mining and to rehabilitate the land after mine closure and to guarantee that the project shall have no serious negative impacts. Any person or entity licensed to develop mineral resources shall utilize procedures to limit adverse environmental impacts
Agriculture law	Provide principles, regulations and measures on agricultural production activities and management as well as to promote agro-ecological conservation.	All individuals and organizations have obligation to protect and sustainable use agricultural land to ensure that there is no degradation land, water and forest.
Environment Protection law (1999)	Specifies principles, rules and measures to manage, monitor, restore and protect the environment, natural resources and biodiversity Ensure the sustainable socio-economic development	All persons and organizations residing in Lao PDR have an obligation to protect the environment STEAs are responsible for overall environmental oversight and coordination

		Each sector responsible for development projects shall issue its own regulations for EIA, based on EIA regulation issued by STEA
Environmental Impact Assessment (2000)	Establishes uniform environmental assessment requirements and procedures for all development projects in Lao PDR	Requirements for the environmental management plans, environmental monitoring and evaluation, and public involvement

Many laws and regulatory and enabling frameworks have significantly addressed issues related to the UNCCD objectives. However, the implementations of these policies remain in a primary stage which is challenging with several issues and factors especially in relation to institutional, technical, financial and human resource capacity.

Chapter 4: Institutional measures taken to implement the UNCCD

4.1 NAPs as part of the national economic and social development and environment protection plans

The NAPs for UNCCD implementation is unavoidable to link with other field of government policies and strategies. Prior to develop the NAP, the government has reviewed other policies in order to establish synergies with available policies, plans and programs. For example, the several objectives of this NAP correspond to the government eight priorities for national economic and social development plan. Those include food security, rural development and human resource development, shifting cultivation stabilization. Other programs and policies that have linked on the NAP include: the Lao National Growth and Poverty Eradication Strategy (NGPES), the Millennium Development Goals, The Government's Strategic Vision for the Agricultural Sector, National Strategy on Forestry to the years 2020, National Strategy on Environment to the year 2020 and Action Plan for the years 2006 to 2020.

The private sector support has been encouraged by the government by adopting incentive schemes. For instance, the governments provide credit and tax free for individual and organization whose objective is for afforestation and plantation for their income generation as well as to protect soil property.

However, some institutional obstacles in integrating the objectives of the NAP in to above strategies exist. Lack of local capacity to translate the NAP to integrate in other sector action plans and implementation is the key constraint. The important reason is the newly establishment of the local office through out country where capacity building is terribly need. Technical staff is inadequate, resource to implement the policy is limited as well as the number of personnel engaging in the office is few.

4.2 Establishment of functional national coordinating body

Just after the ratification of the nation on UNCCD, the Lao government has set up institutional mechanisms for the implementation and co-ordination of the NAP as following:

1. The Science, Technology and Environment Agency (STEA): STEA under Prime Minister Office was assigned by the Lao government to be responsible for coordination on implementation of the international multilateral environment agreement such as UNCCD, UNCBD, UNFCCC. STEA is also the coordination office with the key line ministry and other stakeholder. In addition, STEA is responsible for macro coordinate to implement the obligation of international Environment Convention.
2. The National Focal Point (NFP): NFP has responsible for all UNCCD matter. It has the office in the STEA. The NFP is the UNCCD coordination unit to cooperate with line ministries, sectoral concern and local provincial and district office for monitoring and management of natural resource such as Land use, water and so on. The NFP also takes care for liaising with the UNCCD secretariat and other international, regional and national bodies to obligate the UNCCD implementation.
3. UNCCD Technical Coordination Working Group (TCWG): the group consists of representatives from Science Technology and Environment Agency, Department of Land Planning and Development under Prime Minister's Office, National Agriculture & Forestry Research Institute(NAFRI), Soil Survey and Land Classification Center, Department of Irrigation, Planting Department and Department of Meteorology under MAF; National University of Lao PDR, Ministry of Labor and Social Welfare-Disaster Management Office, Department of Land Planning and Development, and mass organization- Lao Women Union & Lao Youth Union. The Technical Coordinating Working Group³ (TCWG) on UNCCD implementation was coordinated by the STEA. The roles of the TCWG are to provide and recommend technical guidance to the implementing the UNCCD. The working group job also bring the UNCCD policy and strategies in to practice through programme and project formulation and implementation under their framework.

4.3 Institutional framework for coherent and functional desertification control

The institutional framework related to the desertification issues in Laos consists of: (a) At national level, ministries and agencies including STEA and MAF have a core role in environmental protection and conservation of the natural resources; (b) the national committees for UNCCD guide inter-sectoral coordination among agencies; (c) the provincial and district entities have devolves responsibility for environmental protection; and (d) mass organizations support the government in promoting participation and awareness.

³ The list of the TCWG is in annex 4

Recognizing the cross-sectoral character of environmental conservation and protection, the Lao Government created multiple coordination bodies to facilitate inter-agency and provincial coordination. These include the National Environment Committee⁴ (NEC) established by Prime Minister Decree No. 09/PM, 2nd February 2002. The committee roles are to advise and provide policy guidelines for environment and natural resources management, in particularly the UNCCD implementation.

4.4 Coherent and functional legal and regulatory framework

As earlier mention in this chapter, the NAP to combat drought and desertification have linkage with (NGPES), the MDGs, The Government's Strategic Vision for the Agricultural Sector, National Strategy on Forestry to the years 2020, National Strategy on Environment to the year 2020 and so on. Thus, institutional measures in terms of policies, plans, legislations and contained in those mentioned government strategies and policies. They have taken environmental protection and sustainable use of the natural resource in to a serious concern especially the land degradation, soil erosion and drought. The policies empower the relevant government agencies and mass organizations, allow and facilitate NGOs as well as encourage private sector to carry out activities aimed at combating land degradation and drought mitigation.

4.5 Linkages achieved with sub-regional and regional action programs

Sub-regional linkages: As a country member of Association South East Asia Nations (ASEAN), International Mekong River Commission (MRC) and member of GMS country, Lao PDR has linked its activities to the ASEAN and MRC sub-region action programs and participated in the development process of the South east Asia Sub-regional Action Program (SEA-SRAP) on combating land degradation and eradicating poverty in dry, drought prone and food in-secured areas.

Regional linkages: Within the partnership for United Nations framework, Lao PDR is piloting a project on national capacity needs self-assessment for global environmental management (NCSA) for the synergistic implementation of the multilateral environmental agreements (MEAs) with a focus on the UNCCD, UNCBD and UNFCCC. The project objective is developed sufficient individual, institutional and systemic capacities, to be able to fulfil its national obligations as a signatory to the major MEA such as UNCCD, UNCBD and UNFCCC, and promote patterns of sustainable development.

Lao PDR has also involved and participated in UNCCD regional action program, particularly the thematic program networks(TPNs) on the promotion of agro-forestry and soil conservation, water resource management for dry land agriculture, capacity building for mitigating drought impact and combating desertification and local development initiatives.

⁴ The list of member of NEC is in annex 3

Chapter 5: Participatory and consultative processes in support of the preparation and implementation of NAP

5.1 Effective participation of stakeholders in defining national priorities

Because the Lao government recognizes the significant involvement of stakeholders to define the national priority, various key Stakeholders were invited to attend the forums for formulation and implementation of the NAP. Identification of Stakeholders was based on their activities related to the UNCCD. At the ministry level, selection was addressed to the ministries that formulate and implement the national priority programs for socio-economic development that coherent to the UNCCD. At provincial level, the condition of land use, land degradation and poverty was used as benchmarks for site and participant selection. At the project level, it had to be ongoing projects related to the implementation of UNCCD. Mass organization such as Youth and Women Union are not less important as their role for UNCCD are to support and propagandize the government policy.

The Stakeholders in NAP include Key line ministries⁵ being as the UNCCD technical coordination working group. The group roles are to draft the NAP and to provide consultation for the implementation of the projects related to the national socio-economic development and the convention. Local government representatives from Xiengkouang, Luangprabang, Huaphanh, Xayaburi and Savannaketh also involved in order to provide local related issues to the forum as well as to show their interest. GO and NGO such as UNDP, FAO, GTZ, IUCN, IRRI, CARE, LAO RED-CROSS, FORCAP actively attend the forum to provide information from the actual implementation of the project related to this convention as well as to commend on the NAP draft that meet their requirement to support. Mass organizations, namely Youth and women union provide their point of view on the NAP. Last but not least, local community such as farmer and water user groups we also invited to show their interest.

5.2 Methods of participation of various actors in regular consultations, meetings and regular exchange of information

For the enhanced coordination, National Environment Committee has been established with representation of key ministries. A technical coordination working group for the UNCCD implementation was officially established in order to exchange information and initiate projects related to the national socio-economic development strategy and those related to the implementation of the UNCCD and also has organized several Thematic Program Networks (TPNs) for

⁵ Science Technology and Environment Agency, Department of Land Planning and Development under Prime Minister's Office, Ministry of Agriculture and Forestry: National Agriculture & Forestry Research Institute(NAFRI), Soil Survey and Land Classification Center, Department of Irrigation, Planting Department, Department of Meteorology, National University of Laos, Ministry of Labor and Social Welfare- Disaster Management Office and mass organization- Lao Women Union & Lao Youth Union

enhancing capacity building through exchange of experiences and sharing information on the best practices and lessons learnt in relevant the UNCCD implementation in the country.

The mass organizations, namely Lao Youth and Women Unions are key actors in the information dissemination and extension. The Youth union has a role to propagandize the government priorities for social and economic development. Meanwhile, the Women Union, in association with Youth Union, organizes groups of farmers and conservationism, develop permanent occupation for villagers. In addition, the unions encourage an application of indigenous knowledge in the government program implementation related to the treaty at community level.

Decentralization of decision-making mechanism has been adopted since 2000 which Socio-economic Development Plan designates provinces as strategic units, districts as planning-financial units and villages as administrators/executors. This mechanism ensures a full participation of the provincial, districts governor and village communities in the NAP implementation.

So far, progress has been made in developing with assistance of the private sector under supervision of the related government agency, to adopt appropriate technologies aiming at promoting sustainable land use practices. There has been an increase in both domestic and international private investment in land use for plantation; orchard and other cash crop. In addition, other activities such as large scale construction and mining require EIA prior to their actual implementation. Eco-tourism has also been booming contributing a significant national income. As the attraction of this tourism industry is the abandon of natural vegetation, conserving this resource is a necessity which appropriate technology needs to be applied. All of these activities minimize and against desertification of the land.

However, besides progress had been made, following capacities are needed in order to maintain active involvement of national and local stakeholders with regard to the planning and implementation of NAP activities.

- Updating NAP in order to have it consistent to the National Social and Economic Plan till 2020, national poverty eradication, Environmental, forestry, agricultural and water action plans.
- Strengthening on sustainable land use and management, Research and promote appropriate technology for sustainable agriculture production to appropriate areas.
- Strengthening coordination to relevant sectors for rehabilitation of degraded forest,
- Skill training to local community in degraded land area

5.3 Effective support from international partners for cooperation (including partnership agreements with developed country parties and other interested entities)

The Lao Government considers the NGPES, NSEDP and MDGs as the comprehensive framework under which development assistance (donor countries) is executed. So far, there have been several supports for a national consultation mechanism from relevant international organization. However, Specific financial support for UNCCD implementation is limited. So far, only few support from UNCCD secretariat to organize a national consultation forum in September 1999. In addition, the actual financial and technical support specific to the implementation to combat soil erosion and degradation as well as desertification in certain provinces in Lao PDR have not yet substantial, partially, because the nation faces less problem of desertification than those in Africa and thus priority is not placed in the country.

Certain efforts have been done so far to seek funding support from the international communities carry out the NAP. However, priorities of the convention are not placed in the country party where severe decortications and serious drought does not exist. However, this country party faces different problem. The problem are land degradation, deforestation, soil erosion and expansion of land for agriculture which are the key causes of desertification and drought.

Currently, the NFP is preparing to seek both financial and technical supports from UNCCD secretariat and other UN agencies as well as the developed countries, in particular a request to GEF and GM for assistance to conserve and use the land in a sustainable manner.

Chapter 6: Measures taken or planned within framework of the NAP.

Over the last decade, the Lao government have based on the condition of environment and natural resource for country development. Since the Earth Submit in 1992, Lao Government began to embrace the concept of sustainable development and to shift the priorities of existing agencies and programs to environment issues. The country has adopted a number of specific environmental agreements which related to the NAP implementation of the UNCCD. Other developments that have taken place include increase in public awareness, as a basis for action at every level responsibility on environment and natural resources degradation, simultaneously providing education on sustainable development. The investment projects and private sectors are also getting involved and adopt more environmental friendly technologies in order to promote sustainable management and utilization of the natural resources.

6.1 Established technical programmes and functional integrated projects to combat desertification

The Lao Government, with support from the cooperating partners is implementing programmes /projects aimed at promoting effective environmental protection and sustainable management of the natural resources. These programmes or projects implemented indirect collaboration with local province and district are in line with NAP and UNCCD provisions.

The functional integrated projects related to combat desertification following are some of the key ongoing projects:

1. Decentralized Irrigation Development and Management Project (ADB Loan):
The Project aims at establishing sustainable irrigated agriculture through the irrigation management transfer process and strengthening of Water Users Associations and agricultural extension. Components include (i) the development of Water User Associations, ii) rehabilitation of irrigation infrastructure, and iii) enhancement of extension capacity. The project is implemented in Borikhamxay, Savannakhet, Vientiane Municipality, Vientiane, Luangprabang and Xayabury. Progress has been made in the training of Water Users Associations and survey and design work on the irrigation infrastructure is about to commence.
2. Nam Ngum River Basin Development Sector Project: The two immediate objectives are to foster and institutionalize integrated water resources management (IWRM) in Government at the central, provincial, and district levels; and to support investment interventions in relatively degraded parts of the Nam Ngum River Basin to ensure sustainable watershed management and to provide livelihood opportunities for the poor and ethnic groups. The project is implemented in Xiengkhuang, Xaysomboun SR (Special region), and Vientiane Province.
3. Champasack Community Based Disaster Management Project (World Vision): This project is enabling the people of Champasack District to better cope with the perennial hazards of drought and floods on their lives and livelihoods. It promotes community-based and environmentally sensitive approaches to disaster risk management. Three key objectives are: Early warning and capacity enhanced, System of flash flood rain catchments weirs constructed, and Diversified flood/drought resilient agricultural practices established.
4. Champasack Disaster Management Project 2 (World Vision): This project aims to reduce vulnerability to disasters (floods and drought) for 5,500 people in 10 villages of Champasack District by March 2005. Immediate objectives include 1. Increased disaster awareness through the capacity building and strengthening of existing Village Disaster Preparedness Units; 2. Increased awareness in the community through training and community education campaign; and 3. Increased income diversification through the continued monitoring and support of vegetable and fruit tree production around recently completed weirs as well as the establishment of village-based savings and credit groups.

6.2 Action programmes implemented in compliance with priority fields set out in the Convention

- **Smallholder Development Project (ADB):** Objectives are to promote agricultural commercialization through extension and training and to support the growth of value-added enterprises by improving access to information and market and creating an enabling environment for investments in agribusiness. The project is implemented in CHAMPASACK, KHAMMUANE, SAVANNAKHET, and VIENTIANE. The project has four main components: i) farmer support services to improve farmer's technical knowledge of integrated farming systems, and access to market information and inputs; ii) agribusiness and marketing to stimulate investment in agribusinesses; iii) rural infrastructure to improve physical access to produce markets and reduce marketing costs; and iv) project management.
- **Improvement & Development of Fruit & Vegetable Crops in Laos (FAO):** The objective of the project is to enhance the level of food security by developing sustainable fruit and vegetable farming systems in Lao PDR that help with diversification to reduce poverty, and improve the incomes, nutrition, and livelihoods of smallholder farmers in the project area. The strategy consists of targeted technological and social-economic interventions involving all Farmer Based Organizations and Immediate Support Organizations concerned.
- **National Agricultural Biodiversity Program in Lao PDR (UNDP):** to enhance understanding of crop and crop associated biodiversity; to increase the contribution of livestock to food security and sustainable livelihoods; to ensure the continued contribution of non-timber forest products to food security, nutrition, and rural development; to increase understanding of the roles and values of aquatic resources and enhance management capacity; To reduce malnutrition and support overall improvement of the diet of the people of Lao PDR; to provide overall policy direction for the National Agriculture Biodiversity Program and to establish an management unit; to ensure that the National Agricultural Biodiversity Program is integrated into the social, economic and environmental context of Lao PDR
- **Sustainable Forestry (WB)** to assist achieving sustainable forest management of production forests and to alleviate rural poverty in selected forest areas and to help advance a broad set of forest policy reforms. The project is implemented in Champasack, Khammuane, Saravane and Savannakhet.
- Numbers of key corroborating ongoing projects undertaking at community level through out the country contribute in compliance with priority fields set out in the Convention for combating desertification especially for sustainable natural resource management, poverty reduction, food security, conservation and local capacity building. These projects include:
 1. Community-based forest management for conservation and sustainable development in the upper Sekong watershed (WWF)

2. Integrated poverty reduction project in Bolikhamxay province (MuangMai) supported by (Deutsche Welthungerhilfe/German Agro Action (DWHH/GAA)
3. Community based natural resource management in Saravane province supported by (VFI)
4. Community based rural development project for conservation in Oudomxay (GAA)
5. Community development programme in northern provinces supported by Quaker Service in Laos (QSL)
6. Community development project Saravane province (CONCERN-Lao PDR)
7. Food security for ethnic minorities in Kaleum and Dakcheung districts, Sekong province supported Action Contre la Faim (ACF)
8. Poverty reduction through land tenure consolidation, participatory natural resources management and local communities skill building supported by (ADRA Lao PDR)

6.3 Effectiveness of measures in local capacity building

Capacity to implement the UNCCD in Lao PDR has been assessed in joint undertaking with that of the UNCBD, UNFCCC and International water under a GEF funded project. The national capacity self assessment project (NCSA) was executed by Department of Environment (DOE) under Science Technology and Environment Agency (STEA). Under this project, a situation analysis of each convention identified key capacity building issues and constraints, and proposed interventions regarding the UNCCD implementation in Lao PDR as follows:

Identified issues	Capacity constraints	Capacity building interventions
A. institution capacity to implement the UNCCD		
Weak harmonization of sustainable land management programs among relevant institutions	Weak mechanism for information exchange among key institution.	Institutionalize integrated planning approaches. Strengthen key sector & institutional coordination and collaboration. Prepare guideline for integrating SLM issues into development plans.
Inadequate women and youth at local level local mainstreaming in SLM programs	Negative traditional norms. Low integration of women and youth issues in SLM training. Lack of disaggregated data on women and youth in SLM.	Integrate women and youth issues into SLM policies. Train SLM actors in women and youth perspectives e.g. women and youth analysis, monitoring and evaluation. Sensitize and community leaders on women and youth issues in SLM.
Inadequate institutional capacity to collect data and monitor SLM	Inadequate trained manpower. Inadequate equipment and facilities. Poor networking among SLM actors.	Train manpower in modern SLM data collection and monitoring systems. Establish a data and information exchange network on SLM. Build ICT capacity to enhance data analysis and dissemination in dry, drought prone and food in-secured areas.

B. policy, legal and enabling frameworks		
Weak enforcement of laws, policies and action plans relating to SLM management	Weak capacity of local institutions. Inadequate training of enforcement officers in laws, policies relating to SLM management. Incompatibility of laws with local socio-economic conditions.	Advocate for a consistent and effective mechanism for participatory enforcement of laws on SLM. Rationalize mandates of relevant institutions in enforcing laws and policies. Train and involve legal aid agencies in awareness raising on SLM laws and policies. Update and review SLM policies for suitability for various socio-economic frameworks of dry, drought prone and food in-secured areas.
C. sustainable management of land resources		
Inadequate local capacity to implement SLM practices	Inadequate policy frameworks and awareness of SLM practices. Inadequate manpower and facilities.	Training courses in SLM for existing district extension staff, village communities, NGOs, and other private agriculture advisory service providers. Formulate a soil policy. Conduct sensitization programs for village communities. Advocate for SLM prioritization at all levels, including urban centers. Mobilize communities into groups to benefit from synergies.
D. Sustainable management of water resources		
Inadequate local capacity to harvest and conserve water for domestic and production purposes.	Lack of awareness and facilities weak policies for promoting water harvesting.	Train community workers, NGOs and CBO in water harvesting and management. Develop guidelines for and integrate water management into mainstream extension service system.
E. public education and awareness of UNCCD issues		
Inadequate awareness of land degradation/desertification issues among stakeholders at all levels	Inadequate manpower to sensitize stakeholders. Unattractive long-term nature of returns.	Hold sensitization programs through radios, newspaper, ... Integrate UNCCD issues into school curricula.

Chapter 7: Financial allocations from national budgets in support of implementation of the UNCCD/NAP as well as financial assistance and technical cooperation including their inflows

Financial allocation from national budgets in support of implementation of the UNCCD has been very limited. The UNCCD focal unit in the STEA is only staffed by three professionals who also have to shoulder many other responsibilities.

7.1 NAP Financing

There are two main sources of fund to sustain the viability of the UNCCD mechanism in Lao PDR. The Lao government support funding which covers all

expenses for administrative task and operations such as personnel stipend and material such as office space, office equipment, stationary and transportation for implementation of UNCCD activities. The UNCCD secretariat provides funding support mainly for personnel expense for attending UNCCD forum out of the country. Additional supports have received for organizing national workshop and report writing.

However, there has not been significant financial support from international community to develop a tangible project addressing specific to implementation of the NAP for UNCCD. Also the Lao PDR has not yet established a National Fund to combat land degradation to provide fund solely for NAP implementation.

The STEA has limited financial resource and qualified staff for the implementation of NAP, prepared in 1999 with funding support from the UNCCD Secretariat. Currently, funding is being sought from UNDP for updating, revising and strengthening the NAP. Once this new NAP is prepared, the Government will request funding from donors for its implementation.

The MAF is the main implementing agency of activities related to the combating to desertification/drought. It is appropriately staffed but lacks financial sources. Other concerned ministries are in the similar conditions of MAF.

7.2 Financial mechanisms

7.2.1 Global Mechanism

Apart from limited funds provided to Lao PDR for preparing its NAP and for preparing of this third national report, so far the financial mechanism of the UNCCD has not been able to provide any substantial funding for Lao PDR for project activities relating to the implementation of the UNCCD.

7.2.2 Global Environment Facility

The GEF has become a financial mechanism of the UNCCD in 2003. However, due to the limited human and institutional capacity of Lao PDR for preparing the GEF project proposals, so far Lao PDR only participated in only one medium-size regional project under the GEF operational programme 15 "Sustainable Land Management entitled Sustainable Land Management in Mountainous Regions": Thailand, Lao PDR and China (Yunnan Province), which is being developed after the approval of the PDF-A grant of US\$45,000 by UNEP/GEF.

However, two national GEF projects have been funded under the focal area of biodiversity: (i) Wildlife and Protected Areas Conservation, a full size project with US\$5 million, and (ii) Integrated Ecosystem and Wildlife Management Project in Bolikhamxay Province, a medium-size project with GEF grant of US\$0.999 million. Both projects are implemented by the World Bank/GEF.

In addition, there are a number of national GEF projects funded under the focal area of climate change:

- National Greenhouse Gas Inventory Project; GEF grant: US\$0.313 million; GEF Implementing Agency: UNDP;
- National Adaptation Program of Action; GEF grant: US\$0.200 million; GEF Implementing Agency: UNDP;
- Climate Change Enabling Activity (additional financing for capacity building in priority Areas); GEF grant: US\$0.100 million; GEF Implementing Agency: UNDP;
- Off-grid Electrification Pilot Demonstration, A Component of the Lao PDR Southern Provinces rural electrification; GEF grant: US\$0.744 million; GEF Implementing Agency: World Bank;

Lao PDR also has participated a number of GEF regional projects under the focal areas of international waters and biodiversity, as follows:

- National Performance Assessment and Sub-regional Strategic Environment Framework in the Greater Mekong Sub-region (GMS); medium-size project with GEF grant of US\$0.8 million; GEF Executing Agency: ADB (approved);
- Mekong River Basin Water Utilization Project; Full-size project with GEF grant of US\$11.1 million; GEF Implementing Agency: World Bank (CEO endorsed);
- Mekong River Basin Wetland Biodiversity Conservation and Sustainable Use Program; Full-size project with GEF grant of US\$4.535 million; GEF Implementing Agency: UNDP (CEO endorsed);
- Implementing the Global Strategy for Plant Conservation: identification of threatened plant species and protection of important plant areas in six priority countries; Full-size project with GEF grant of US\$3.35 million; GEF Implementing Agency: UNEP; PDF B approved

7.3 Development of technical cooperation

Currently, the national focal point is preparing proposals to GEF and other Donor courtiers for projects implementation under the framework NAP on combating desertification and drought. The proposed goals are to address the land degradation and mitigate the effects of drought in Lao PDR. It aims at promoting innovation technical, policy and institutional mechanisms to enhance sustainable land management practice in vulnerable areas to degradation and drought with a view to improving the livelihoods of the local community in dried, drought prone and food unsecured areas.

Other than financial support, several technical cooperation supports from donor agencies have been received. Recently, an official from UNESCAP visit the STEA to provide guidance on the UNCCD country report preparation as well as provide consultation to access to the funding sources for NAP implementation.

7.4 Further financial and technical constraints & capacity development needs

To effective implementing the NAP for UNCCD, in addition to the government support, it requires adequate technical cooperation and guidance from the

UNCCD Secretariat as well as financial support from GEF and other donor countries:

Needs for capacity building

- Training on integrating of the NAP into government national planning and budgeting processes and also to create public awareness on combating land degradation and drought;
- Capacity building for provincial and district members on matters pertaining to leadership skill, and strengthen institution, human resource and improve collaboration between related sectors for rehabilitation of forest and land degradation;
- Promote participation of women and youth in forest rehabilitation, soil degradation and drought mitigation.

Technical cooperation needs

- Update and review the NAP on combating land degradation and drought;
- Study, research and promote technologies for integrated agricultural production management and sustainable land use;
- Create database system, communication and develop information network for combating land degradation and drought mitigation;
- Promote and use local traditional knowledge to combat land degradation and mitigate drought;
- Allocate and develop stable occupation for ethnic people that causes land degradation and risk on drought, and
- also need for continued support for Lao officials to attend the conferences at regional and global level to share and exchange experiences among the parties.

Chapter 8: Review of benchmarks and indicators utilized to measure progress and assessment.

8.1 Operational mechanisms for monitoring and evaluation

Lao PDR remained inadequate systematic benchmarks or indicator utilized to assess the implementation of the convention probably because of no significant activities or project under the NAP. However, the systematic indicators on natural resource change are available in various agencies. The National Statistical Center under Committee for Planning and Cooperation has published the statistical Yearbook. The books include data of geographic, meteorology and hydrology; administration, population and labor force; GDP, agriculture; industry, education and culture. The Environment Research Institute and Department of Environment under STEA has a section that monitors and manage the environment and natural resources utilization in the country. STEA has also published the state of environment report. The report focus on describing the status of the environment in the Lao PDR and identifying trends in natural resources, environmental quality and management, and preparing the Lao Environment Monitor (LEM). The National Agriculture and Forestry Research

Institute and Department of Forestry under MoAF have provided the ten year report on assessment of forest cover and land use in the country. In addition, STEA and MAF have also signify the overall change of environment and nature resource, especially forest, water, land, and ecology quality. These information are significant to reflect the achievements of socio-economic development in the country and serve as background for research, planning process and as general knowledge to all various sectors.

8.2 Scientific and technical desertification control activities

Despite the significant contribution of the scientific researches or activities related to the NAP for combating resource degradation in Lao PDR, financial and technical capacities are inadequate to promote the research activities. The UNCCD working group includes several scientific institutes namely: STEA, NAFRI, Soil Research institute, Forest Plantation Research Center and National University of Lao PDR. These institutes conduct several research projects in the field of natural resource use and management. Also, the institutes participate in many forum and networking activities concerning to sustainable resource management and end up with their scientific knowledge intervention on the policy to combat the natural resource degradation in Lao PDR.

8.3 Implementation of recommendations of the committee on science and technology

In line with the priority issue addressed by CST "land degradation, vulnerability and rehabilitation: an integrated approach, Lao PDR has since COP 7 centered its efforts on tackling land degradation by addressing vulnerability issues through and approach. In this regard, the integrated sustainable land management in mountainous area was formulated based on existing the best practices for SLM with focus on poverty eradication in target areas.

Furthermore, Lao PDR has, as part of the national capacity self assessment project, assessed capacity needs of the national scientific and academic institutions in providing support to the implementation of the UNCCD and synergies with other conventions.

Chapter 9: Conclusions and recommendations

The Lao Government has significantly addressed issues related to UNCCD objectives through formulation of relevant environment laws, policies, strategies, action plans and enabling frameworks. This is to ensure effective implementation of the NAP to combat drought/desertification in the country. Ongoing institutional restructuring has continued to bring sustainable land management issues into deliberate focus and this is expected to enhance resource allocation to the NAP implementation.

However, there are several constraints in the UNCCD implementation. The major one revolves around inadequate financial resources, insufficient technical expertise and lack of human resource.

In order to efficiently fulfill the NAP for UNCCD, NAP itself need to be updated in order to have it consistent to the National Social and Economic Plan till 2020, national poverty eradication, Environmental, forestry, agricultural and water action plans. Strengthening capacities are required especially on sustainable land use and management, research and promotion of appropriate technology for sustainable agriculture production to appropriate areas. Coordination to relevant sectors for rehabilitation of degraded forest is needed to improve. Last but not least, increasing in international technical and financial supports needs to be improved.

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- FAO (2001): FRA 2000, Food and Agriculture Organization of the United Nations (2001): Global Forestry Resources Assessment, Rome.

Annex-1

UNCCD Country profile Lao PDR

This UNCCD country profile has been provided by the National Focal Point Office: Science Technology and Environment Agency under Prime Minister's Office

Date: 31st May 2006
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Biophysical indicators relating to desertification and drought

1. Climate

- | | |
|------------------------------------|-----------|
| 1.1. Index of aridity ⁶ | 0.52-0.96 |
| 1.2. Normal rainfall | 2500 mm |
| 1.3. Rainfall standard deviation | 1200 mm |

Sub-national areas –Agro ecological zones	Mm
1. AEZ1 - the cool climate, temperature less than 8°C during November to March, the north mountainous zoning with elevations more than 1000m	1500-2000
2. AEZ2 - the good climate, temperature 8-25°C, during November to March the center and south mountainous zoning with elevations between 500-1000m	2000-2500
3. AEZ3 - the good climate, temperature more than 25°C, during November to March the plains zoning	1200-2000

2. Vegetation and land use

- | | |
|--|------------------------|
| 2.1. NDVI (normalized difference vegetation index) | N/A |
| 2.2. Vegetation cover (percent of total land area) | 62.8 |
| 2.3. Total land area of the country: (sq km) | 236,800 /23,680.000 ha |

⁶ The index of aridity is the ratio P/PET; P=precipitation, PET=potential evapotranspiration. Climatic zone maps to be annexed if available in a scale of 1/million.

Land use (1000ha)	1990	2002	2004
Total permanent agriculture land:		1,200.000	
- Arable crop land (Rice paddy) :	798.661	969.636	1,044.975
- Irrigated rice areas	11.392	84.000	76.840
- Season rice areas	392.376	519.471	575.520
- Harvested area of upland rice	260.178	134.553	117.960
- Other agriculture land	n/a	461.976	n/a
Current forest:	n/a	9,824.700	n/a
Potential forest area:	n/a	11,152.200	n/a
Other wooded area:	n/a	286.500	n/a
Other Non forest area	n/a	1,216.600	n/a

2.4. Surface albedo⁷ N/A

3. Water resources⁸

3.1. The annual supply of renewable freshwaters (million m³) 270,000
3.2. Fresh water resources per capita (million m³) 54,000
3.3. Water usage is predominantly agricultural (%) 80
3.4. Followed by industrial (%) 20
3.5. Access to clean water (% of population) 52

4. Energy

Consumption

4.1. Energy use per capita (kg oil equivalent) N/A
4.2. Agricultural energy use per hectare (millions of BTU) N/A

Production

4.3. The main source of electricity in the country is hydro power, the current installed capacity 565 MW which is 3 percent of the total exploitable of the country.

Renewable-Consumption by sector:

4.3. Industry (% of total renewable consumption) N/A
4.4. Residential (% of total renewable consumption) N/A
4.5. Agriculture (% of total renewable consumption) N/A

5. Types of land degradation

Vulnerable land to degradation	2002	
	1000 ha	percent of total area
- Unstocked forest areas	10,096.3	42.6
- Barren land and rock	231.0	9.8
- Savannah /open woodlands	94.4	4.0
- Heath, stunted and scrub forest area	192.1	8.1
- Grasslands/pasture	579.3	24.5
- Agriculture plantation	216.8	9.0

⁷ Surface albedo map to be annexed if available

⁸ STEA 2000 a State of Environment Report

Some key Socio-economic indicators related to environmental management in particularly desertification and drought:

6. People and economy	
6.1. Population (total)	5,663,000
• Population: urban (percent of total)	20
• Population: rural (percent of total)	80
6.2. Population growth (annual %)	2.4
6.3. Life expectancy at birth (years)	59
6.4. Infant mortality rate (per 1,000 live births)	82 deaths
6.5. GDP (current US\$)	356.80
6.6. GNP per capita (current US\$)	N/A
6.7. National Poverty rate (% of population)	39
7. Human development	
7.1. Net enrolment in primary school (% age group)	83
7.2. Ratio of girls to boys in primary, secondary, Secondary, and tertiary education (number of girls per 100 boys enrolled):	
- Primary:	84
- Secondary:	71
- Tertiary:	58
7.3. Literacy rate in the age group 15-24 years	79
7.4. Ratio of literate women to men, 15-24 years old	90
7.5. Share of women in wage employment in the Non-Agricultural sector (% of total):	38
7.6. Proportion of seats held by women in the nation parliament	23
7.7. Number of women in rural development (total number)	N/A
7.8. Unemployment (% of total)	N/A
7.9. Youth unemployment rate (age 15-24)	N/A
8. Science and Technology	
The number of scientific institutions engaged in land resources management in particularly desertification-related work (total number): 3	
- National Environment Research Institute	
- National Science Research Institute	
- National Agro-Forestry Research Institute	
9. Data Sources	
- Committee for Planning and Investment, (NSC-1975-2005)	
- Steering Committee for the Agricultural Census Office;	
- Science Technology and Environment Agency;	
- Ministry of Agriculture and Forestry;	
- Ministry of Education, (annual report -2002/3);	
- Ministry of Industry and Handicap.	

Annex-2

List of Activities and Participants on preparation, adoption and validation of the Third National Report on UNCCD Implementation in Lao PDR:

1. participants at 3 NR formulating process: Local Consultant and International Expert:
Dr. Sithong THONGMANIVONG, National Expert, NUoL
Mr. Kaisone PENG SOPHA, Local Consultant, NUoL
Dr. Pak Sum Low, International Consultant, UNESCAP



2. Participants at TCWG Consultation Meeting on 20th January, 10th April, and 3rd May, 2006:



3. Public involvement process on collaboration for the 3rd NR preparation process at University level, NUoL:



4. Participants at the National Consultation Workshop on 25th May 2006:



Annex-3

Composition of the National Environment Committee

Ministry/Agency	Position	Position
Prime Minister's Office	Vice- Prime Minister	Chairperson
Ministry of Agriculture and Forestry	Minister of MoAF	Deputy Chairperson
Science Technology and Environment Agency	Minister to the Prime Minister's Office, President of STEA	Deputy Chairperson, Permanent Secretary
Ministry of Industry and Handicraft	Vice-Minister of MoIH	Member
Ministry of Communication, Transport, Post and Construction	Vice-Minister of CTPC	Member
Ministry of Public Health	Vice-Minister of MoH	Member
Ministry of Education	Vice-Minister of MoE	Member
Ministry of Finance	Vice-Minister of MoF	Member
Ministry of Justice	Vice-Minister of MoJ	Member
Ministry of Commerce	Vice-Minister of MoC	Member
Ministry of Information and Culture	Vice-Minister of MoIC	Member
Lao Trade Union	Vice-Chair of Trade Union	Member
Lao Youth Organization	Vice-Secretary Lao Youth Organization	Member
Lao Women's Union	Vice-President Lao Women's Union	Member

Annex-4



Technical Coordination Working Group for UNCCD (TCWG)

Sector/Agency	Name & Surname	Position	Tel/Fax & email
Members:			
Prime Minister's Office, Science Technology Agency	Mr. Sitha Phouyavong	Director General of Cabinet, STEA	
Prime Minister's Office, Science Technology Agency	Mr. Soukata Vichit	Director General of NEPF Office	soukatav@yahoo.com
Division of International Cooperation, Science Technology Agency Cabinet under Prime Minister's Office,	Mr. Kongsaysy Phommaxay	Division of International Cooperation / UNCCD Focal Point	kongsaysy@stea.gov.la kon_env@yahoo.com
Faculty of Forestry, National of University of Laos, MOE	Dr. Sithong Thongmanivong	Head of forestry faculty	sithong@nuol.edu.la 021-770096
Department of Irrigation, MAF	Mr. Somnuak Chanthaseth	Head of Division	snchanth@hotmail.com
Soil Research and Land classification Center National Agriculture and Forestry Research Institute (NAFRI), MAF	Mr. Ohroth Sengtaheunghoug Mr. Bounthieng Sengmanyvong	Director of Center Head of Unit	
National Disaster Management Office, MoLSF	Mr. Phetsavang Soundala Ms. Vilaikham latsaath	Director of NDMO Technical staff	
Department of Meteorology, MAF	Mr Bouchoum Khonmexay	Deputy Director of Division	020-5934187
Technical Division, National Agriculture and Forestry Research Institute, MAF	Mr. Bouahom Thephavongsa	Deputy Director of Division	
Department of Land Planning and Development, PMO	Ms. Vina Phimmachanh	Technical staff	
Planting Department, MAF	Mr. Bouahome Thammavongsa	Deputy Director of Division	
National Agriculture & Forestry Extension Services (NAFES)	Mr. Boualy Phameuang	Director of Division	
Lao National Mekong Committee	Mr Phonphaseth Phousiphan	Technical staff	021-260981
Lao Women's Union	Mrs Anyaline phomasa	Technical staff	020-7860411
Lao Youth's Union			
Local Development Planning & Poverty eradication Division CPI	Mr. Chantanaphonh Vongsay	Deputy Director	
National University of Laos, Faculty of Forestry	Mr. Kaisone Phengsopha	Lecturer	020-5662299
Partnership			
NCSA Project	Ms. Bounkham Volachit	Project Manager	bounkham@hotmail.com
NAPA Project	Mr. Syamphone Sengchandala	Project Manager	
MEA Project	Mr. Sounadeth	Project Manager	
Northern Community Managed Irrigation Project (NCMI)	Mr Volasith Silikhan	020-5805653	020-5805653
Sustainable Forestry & Rural development Project		020-5620551	020-5620551