

Lao People's Democratic Republic

Country Report

1999

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I . The Lao context

Laos used to be a very lush country, with abundant forests, mountains and many species of wildlife, for this reason it was called "Land of million elephant" in the 14th century. The Lao People's Democratic Republic is established on 2nd December 1975. Lao PDR is a multiethnic country in the heart of South East Asia with a total land area of about 236.800 km² and a population of about 4,8 million people (SPC-1997) giving an overall population density of 20 per km². The population share a rich ethnic diversity, classifying into three broad groups Lao Loum (lowlanders) 70% live along the Mekong river and its tributaries. Lao theung (highlanders) 20% live on the slopes and hills with an elevation of less than 1,000 metres and Lao Soung (uplanders) 10% live in the high mountainous areas. Approximately 85% of the country is mountainous, which is a barrier to development of economic infrastructure, transportation, communication and production and sustainable use for the development of modern irrigation system.

The country is divided administratively into 17 provinces and I special zone. These are in turn divided into 142 districts, 11.390 villages and 792.287 households (SPC-1997). The country remains a predominantly rural economy, with about 80% of the population living in the rural areas and some 66% relying on subsistence agriculture. Poverty is greatest in the upland rural areas and varies between regions as follows: central region 33,6%, northern region 26.5%, southern region 16,2% . In absolute terms, about 2,05 million of the Lao people are

poor based on the poverty incidence measure (in northern region- 46%, central region- 40% and southern region- 60%). The Lao PDR or Laos is among the least developed countries in the world with its GDP of 382 US \$ per capita in 1997. Its economy is virtually undiversified and depends largely on the country's natural resource base.

Lao PDR is considered, also by international standards, to be still relatively rich in forest, water, biodiversity, mineral and land resources. However, although the country has significant unused land resources, unexploited most of the forest resources are found and where the overall resource base is fragile, with the majority of land susceptible to degradation and generally poor soils.

In 1950, closed tropical forests covered approximately 70% of the Laos. That figure has declined to about 47% in the last 30 to 40 years. Despite significant degradation over the past three to four decades, Lao PDR still has extensive natural forests cover and retains one of the highest portions of relatively intact forests in Asia.

Availability of agricultural land similarly varies widely by region. The centre and particularly the southern provinces retain significant arable land resources, of which a marked part remains underdeveloped. The more mountainous north, where demand is highest, has significantly less potential agricultural land. Although Lao PDR's population is small, it is growing rapidly (growth rate 2,5%) and heavily concentrated in the provinces which border the Mekong River and its tributaries, putting increasing demands on the natural resources in the upland areas.

Agricultural production in upland areas is still dominated by subsistence crop cultivation under a shifting cultivation or swidden (slash-and-burn) farming system. Most sustained severe deforestation and land degradation in Lao PDR is associated with shifting cultivation. This is particularly true in areas where population pressure has led to a significant decrease in the rotation period or where traditional lowland farmers encroach on neighbouring uplands to make up for low and often declining yields on their lowlands paddy fields,

Rural poverty in the uplands is directly linked to land degradation resulting from the management of the agricultural systems practiced. The challenge of stabilising shifting cultivation in upland areas cannot be met unless the issues of poverty reduction, provision of alternative source of livelihood, food security, and security of land tenure are addressed simultaneously. This need to be accompanied by assistance in community-based natural resource management planning so that upland communities have a mix land uses, including conservation forests to protect soils, water resources, wildlife, and other biological resources of value to the community and the region. To address the great complexities of upland livelihood and socio-cultural systems, the Lao Government has devised a "Focal Site" approach to support sustainable decentralised forest land management in the uplands.

II . Overview of Environment Issues

Some environmental characteristics of the Lao People's Democratic Republic distinguish the country from other countries in the region. The most prominent among them are:

- Although with less than 20 people per km² Lao P D R is the most thinly populated country in south-east Asia, agricultural land is scarce. The ratio of population to cultivated cropland is about 5 persons per hectare¹.
- Geographic conditions are difficult with the main portion of the country's surface mountainous and prone to erosion. Road infrastructure is far from sufficient.
- The ecological quality of remaining upland forests and unmodified waterways is partly unique in the region. The natural conditions of most of the territory (climate, soil, topography) are more favourable for silviculture and agroforestry than for sedentary agriculture.
- About half of the country's districts still have to cope with unexploded ordnance. Some are contaminated by wartime defoliants.
- Traditionally regarded as isolated and remote; and began the transformation of its economy from a centrally planned to an open market-based system, the country is now becoming located more in the centre of new trade routes that join booming regional economies.
- The export oriented development of the country's natural resource base is accelerating sharply, in response to internal and external pressure.

The natural resource base of Lao P D R consists of forests, which still cover more than a third of the country, of water, in terms of hydropower potential, and of mineral deposits. These include limestone, anthracite, lignite, gypsum, sand, non-ferrous metals, precious stones, ores and possibly oil, many of those still being untapped. The

bulk of proposals for investment aims at exploring and/or extracting natural resources. Hydropower, forestry and mining are among the principal foreign exchange earners. The Government is well aware that there is a compelling need to ensure that sufficient attention is paid to the sustainability of the continued economic development in Lao PDR.

¹source: State of Environment in Asia and Pacific 1996

The main environmental problem in Lao PDR is deforestation, mainly due to the intensive slash and burn shifting cultivation of the upland and highland ethnic group people's farmers. It is also due to mismanaged logging and conversion of forest land to other uses under rapid population growth. In addition, urban environment problems should be taken into consideration at the outset. The national rich biodiversity resources are under increasing danger due to the rapid disappearance of forests and the weak conservation system. The environment issues in the area of water resource management are the threat of watershed degradation in key watersheds and the potential loss of hydropower and irrigation capacity, the absence of an adequate system to assess environment costs of hydropower development and the population's limited access to clean water and sanitation. Mining could lead to severe environmental damage if the necessary environment safeguards are not applied. Degradation of upland areas due to intensive slash and burn shifting cultivation, farming with shortening fallow periods and encroachment by lowland farmers on neighbouring uplands are increasingly becoming a concern. Due to the extent of development in the area of industries and transport, the Lao PDR would also be exposed to related environment problems if they are not accurately addressed at the beginning.

On 3rd April 1999, National Assembly of Lao PDR enacted the environmental protection law. The Government has started numbers of efforts, which clearly requested Science Technology and Environment Agency, line Ministries and Provinces at all level to take actions necessary for effecting environmental management and sustainable use of natural resources in the country. The basic principles of environmental and natural resource use in Lao PDR are as following:

- environmental conservation is the main task and comes before mitigation and restoration
- planning for environmental conservation should be done together and included into socioeconomic development plans
- all persons and organizations residing in the Lao PDR have to actively contribute to environmental conservation
- whoever has caused damage to the environment is responsible for the impact
- all use of natural resources, raw materials and energy has to be careful, avoiding pollution and waste for sustainable development

III. Disaster Countermeasures

1. Efficient use of the Natural Resources

1) Land resource management:

The effects of the expansion of permanent agricultural land and shifting cultivation areas on forest resource degradation show clearly that land and forest resource management are closely related in the Lao PDR. Expansion of agricultural land into forest lands not only contributes to the deforestation, but also, unless agricultural production systems are well adapted to the soil conditions of former forest lands, cultivation can result in serious land resources degradation and further downstream effects such as siltation and decreased stream flow.

Although population density in the Lao PDR is comparatively low, arable land is not only scarce but the potential for further expansion is limited because of the geographic conditions. Much of the unused land in the country is of inferior quality or inaccessible. The Government has the task to intensify its agriculture, in order to maintain its growing population. This task, however, is further hampered by the country's topography, which limits the potential for irrigation. It is estimated that less than 260,000 ha (15% of arable land with slope below 5%) could be irrigated during the wet season and only 116,600 ha are suitable for dry season irrigation. Less than half of the wet season and less than a third of the dry season potential have so far been developed.

Another factor impeding both the expansion of arable and the proper cultivation of crop-land is the wide-spread contamination with unexploded ordnance of our country-side. Every year many people, mainly farmers or their children are killed and maimed by these remnants of the "secret war". Lao PDR belongs, with a share of 1 tonne bombs per head of population, to the heaviest bombed nations of the world ever. First efforts are undertaken to clear rural areas from bombs and grenades. The National Unexploded Ordnance Awareness and Clearance Programme is a major priority for socio-economic development.

With the Land Law in place, the Government now is concentrating on the following issues:

- Land data survey and allocation

- Land measurement and quality evaluation
- improved upland farming systems
- improved lowland production
- facilitate agricultural research and extension

2) Water resource management:

Lao PDR possesses both abundant surface and ground water resources. With approximately 60,000 m³ per capita, the country has the highest availability of renewable freshwater resources per capita in Asia (and 20 times more than the Asian average). Although the hydrological figure is strongly influenced by the marked dry and wet seasons, acute water shortages and competition for water resources are not a major issue.

Issues ad hereunder refer to inland waters only, because the Lao PDR is a landlocked country.

a) Rivers and Lakes

The main water artery of the country is the Mekong, which forms the main borderline with Thailand. According to the Mekong River Commission, approx. 35% of the Mekong river basin are situated in the Lao PDR. However, 90% out of the total surface of the country belong to the basin. Therefore it can be said that all actions affecting the Lao rivers also affect the Mekong.

The Mekong and its tributaries are of tremendous importance to the country - they provide water for usage and irrigation, they provide food (fish, water animals and plants) and feed (water spinach, water hyacinth) for the farm animals. In many remote parts of the country travel is only possible by boat. Through the Mekong River Commission the Lao PDR coordinates and manages the use of this important resource.

Catastrophic drought in 1991 and flooding was the main cause of the fall in the agricultural growth rates from 8.3% in 1993 to 4.9% in 1995, and again in 1996, when severe and widespread flooding seriously compromised output growth and food security for 1997.

b) Ground Water

The Lao PDR has extensive groundwater resources which receive significant annual recharge during the rainy season. its internal renewable water resources are estimated to 270 Cu km per year. As stated earlier, the per capita availability of the country (55,100 Cu km per head of population) is one of the most favourable in the region but maybe misleading because of the low population density. In fact, the availability of ground water varies considerably over the country. While in some areas the groundwater table is not very deep and enough groundwater exists to satisfy the needs of the population, other areas suffer a shortage of water. No thorough research, however, has boon conducted in this area.

C) Sectoral Water Use

The main bulk of water in the Lao PDR is being used by the agricultural sector (82%), while industrial and domestic withdrawals count for 10% and 8% respectively.

In order to prevent unsustainable use of its water resources, the Government has formed the National Task Force for Water Resources Management, comprising of members of the most important line ministries of water usage and management under the chairmanship of STENO.

The Water Law was promulgated in 1996.

Man-Made Reservoirs. After implementation of its hydro-power development programme the country's surface will be covered by several reservoirs. Each will need a management plan in order to prevent siltation and erosion. The people of adjacent villages also need to adjust their fanning techniques (e.g. from riverine to pond fishery) or even way of life from migratory to a more sedentary life.

At present there is only one large reservoir, the Nam-Ngum lake. The capacity of the attached hydro-power station is 150 MW.

Hydropower. An issue, which is not only of national interest is the intention of the country to accelerate economic development by exploitation of its big hydro-power potential for generation of foreign revenue. The Mekong river mainstream and its tributaries possess a vast potential for hydropower. The basin's hydropower potential from the Mekong and its tributaries in Laos is about 18,000 MW of installed capacity and 110,000 GWh/year of annual energy.

The use of such development, however, needs to be carefully assessed with regard to resettlement requirements, environmental and socio-cultural impacts. Rural electrification is one of the factors to enhance socio-economic conditions in the region, especially in the remote mountainous regions. Using the possibilities of transmission line extensions is one of the options for the electrification, together with local mini-hydropower projects. A national transmission grid would increase these opportunities.

3) Forest resource management :

a) General Issues

As mentioned before, the Lao PDR is still highly dependent on forest resources as a source of foreign exchange and income for a large share of its people. Given the economy's and particularly the export base's limited diversification, Lao PDR will remain dependent on income generated by the forest sector in the foreseeable future. What is therefore needed, is a balance between sustainably managed production forests and protection forests in key areas, such as critical watersheds and areas worthy of protection because of their rich biodiversity.

Based on the National Reconnaissance Survey of 1992, the sustainable annual rate of timber extraction from the country's commercial forests is 288,000 m³. This is approximately equal to both the annual allowable cut adopted by the Tropical Forestry Action Plan and recent annual quotas. In addition to this figure, another 100,000m³ are estimated to be cut annually by forest-based communities for sale and to meet local needs (building materials etc.). The major part of this comes from open area scattered stands and individual trees and does not affect potential commercial forests. Finally, some 80% of the country's energy consumption is wood based. It has been estimated that per head fuel wood consumption averages 1m³ per annum based on the present population. Most of this is harvested by local communities for their own use and often is taken from understory shrubs, and natural mortality of larger canopy tree. Fuel wood harvesting does not appear to represent a serious environmental problem in the Lao PDR, particularly in rural areas.

In the country's development vision 2020, indicative targets were set to achieve a rehabilitation of 2,0 million ha of degraded forests and 500.000 ha of afforestation, in addition to natural forest regeneration on more than 16,5 million ha. This is to be implemented in parallel with sustainable exploitation of remaining forest resources) which maximum allowable annual cut is not to exceed 500.000 cubic metres.

b) Deforestation and its causes

The total forest area of the Lao PDR has decreased by 67,000 ha per year over the last decade. In addition to loss of forest land, there was also considerable degradation of the remaining area, causing concern within the Government and leading to the declaration of 20 National Protected Areas, which cover approximately 12% of the country's total area, the approval of the National Tropical Forestry Action Plan and the adoption of the forest law in 1996.

The depletion of the country's forest resources is due to a number of factors, including poorly planned and supervised logging, forest fires, encroachment and shifting cultivation.

According to Government statistics, somewhat over 300,000 ha are annually cleared under shifting cultivation. Although, at present, the three causes of deforestation (logging, encroachment and shifting cultivation) seem to be equally important, it is estimated, that to the extent that population continues to grow rapidly and fertility in the uplands is declining, expansion of shifting cultivation into forest lands will increasingly become an issue. The Government therefore pays attention to shifting cultivation and declared the reduction of slash-and-burn area a national goal is one of the national priority programme.

c) Government Strategy

The Government is aware of the need to sustainably manage its forest resource, which is very crucial to the Lao economy and society and therefore has decided to focus on several core programmes which provide the implementation framework for an improved system of resource management. 'The key points are:

Improved management of logging operations:

- clear demarcation of production, community and protection forests
- development of forest management plans to guide commercial timber extraction in specific production forest areas
- rendering forest enterprises contractually responsible for harvesting in accordance with forest management plans and forest plantation plans
- improved coordination between logging and local processing to reduce and recycle wastage

Institutional strengthening.

- establishment of effective enforcement and control mechanisms to minimize illegal logging, miss-specification and surreptitious exports
- training of forestry staff to strengthen its capacity in forest inventory and land use planning, forest management, silviculture, scaling and protection.
- establishment of a Forest Management Fund financed by a fixed percentage from forest taxation revenues, so as to assure sustainable funding for improved forest management activities and
- development and adoption of comprehensive land use and forestry legislation

Involve local communities in resource management

- granting long term use and access rights to forest land areas traditionally controlled by a given community in exchange for adherence to resource use and management plans
- assistance to lowland farmers to help increase yields so as to stop encroachment on neighboring uplands and
- development and gradual introduction of more sustainable upland production systems to limit extension of shifting cultivation areas into forest land.

2. The quality of life

a) Eradicating Poverty

As is generally known, pressures on the environment are driven by the dual forces of greed and need. In the first case, untrammled resources harvesting and development without regard for the negative consequences do quickly deplete and damage the nation's natural resources and cultural inheritance. In the second case, the pressure for survival pushes harvesting and land use beyond its carrying capacity and causes degradation over wide areas. This second scenario applies to the Lao PDR - environmental destruction is a "by-product" of subsistence living conditions, which have become unsustainable.

Socio-economic development is the first priority of the Government. In the five years after Rio De Janeiro, Brazil it has become increasingly clear that only development, which takes environment into consideration will be sustainable in the long term.

The Lao Government therefore has to eliminate poverty and to balance the development effort in urban and rural areas and to see the benefits of growth shared among the poor and non-poor alike. This has led to the present drafting effort of the Government of the National Poverty Alleviation Plan. Throughout this report, it is stressed that mass poverty eradication is our main development goal. Sustained growth with equity and a sustainable development strategy are the main instruments for reaching this goal.

As economic growth and rural development initiatives proceed, people in the rural areas will have access to socio-economic alternatives and this will contribute significantly to the alleviation of poverty but also to the protection of the forests, watersheds and streams, which will no longer be destroyed by shifting cultivation. It becomes essential therefore that this segment of the population be exposed as soon as possible to environmental education, training and awareness so to make them more receptive to alternative modes of production that are not environmentally destructive.

b) Raising the level of human health

In the five years after Rio investments in the health sector did not yet reach the government's own targets. A planned rise in Government's health expenditures from 2 to 6% of budget (1994-96) fell short. This situation will be addressed during the coming five years with the declaration of health improvement as top priority. The following objectives for the health sector are set:²

- enhanced promotion of health care, based on a combination of modern health sciences and traditional practices in rural areas, with specific emphasis on health services for the ethnic minorities;
- extension of the higher quality coverage of the free treatment system;
- intensification of preventive health care at the grassroots by increasing immunization levels, the encouragement of improved nutrition, the use of clean water and latrines,
- development of drug revolving funds;
- training of health workers and improved delivery practices in villages;
- upgrading of doctor's skills;
- increased supply of equipment;
- prevention of AIDS and
- improved supervision of private clinics.

²from: Government Report. Sixth Round Table Meeting, 1997

c) Controlling population growth

The 1995 census recorded a population of 4.58 million. That represented a million increase since the last census 1985. The fastest growing province is Vientiane Municipality, growth stemming from immigration in addition to natural population growth. With the improvement of infrastructure and the expansion of medical services into the countryside, mother and child mortality are likely to decline (Table 4). The Government has initiated a family spacing programme in order to curb uncontrolled population growth and to ensure the health quality of mothers and children.

IV. Current Government and sectoral policy

1. General Development Policies and Socio -Economic Performance

The general economic development policy of the government is based on the New Economic Mechanism (NEW) initiated in 1986. The NEW has two main goals: (i) stabilization of the economy, and (ii) transition from central planning to a market oriented growth strategy. Over the last decade the NEW has a significant impact and success, including increase in foreign investment and a high growth of exports. The New was followed by a phase of structural transformation, which placed high priority on large-scale infrastructure development. such national highways, hydropower plants, urban water supply systems, and large-scale irrigation systems.

The present decentralised rural development policy of the Government is aimed at sustained growth with equity for all citizens and emphasizes the dual objectives of conservation of resources and achievement of improved livelihood systems, In 1994. the Government adopted a resolution, which highlighted the importance of decentralized rural development,, and national and provincial rural development committees were established.

2. Environmental Policy

Since the adoption of the New Economic Mechanism as an overall economic reform process in 1986. the Government has engaged in an ambitious programme to transform the national economy from a centrally planned to a market oriented one. With its economic base relying heavily on the exploitation of natural resources (agriculture, forests and hydropower), sustainable socio-economic development closely depends upon the adoption and implementation of comprehensive natural resources management policies and programmes. In its efforts to reform and reformulate national strategies, the Government prepared a number of policy documents for natural resource management in early 1990s, the tropical forestry action plan, the National Forestry Action Plan, the Environmental Action Plan and the Socio-economic Development Strategies.

The Environmental Action Plan lists the key environmental issues for the country and identifies the following areas:

- Development of planning and management framework for environmental aspects;
- Forestry resources management;
- Biological diversity conservation;
- Land resources management;
- Water resources management;
- Industrial, mining and access infrastructure development; and
- Institutional, legal and regulatory framework

3. Disaster Management Policy

The natural disaster prevention and protection in the Lao PDR is anchored in the Environmental Protection Law of the country:

“Disasters are extremely harmful incidents which occur either naturally, are man-made or caused by other reasons. They affect health, life, belongings, and the environment. Disasters in Lao PDR can be: floods, droughts, lands slides and erosion, fires, typhoons, pests epidemics, major oil spills or others.”

“Disaster Protection and Prevention Measures The government founds a National Disaster Prevention Committee. The Natural Disaster Prevention Committee must cooperate with the local administration for developing of disaster response and prevention plans. They must regularly monitor the threatened areas in advance.”

Before the Environmental Protection Law Summit, there was no organization responsible for general and macro-disaster management matters. after April 3, 1999, the National Disaster Management Office was founded by Prime Minister Decree³ to serve as center for coordination and main manager of UNCCD related activities.

National Disaster Management Office is cooperating on disaster prevention and protection within the country is promoted by the existing Line Ministries and Provinces on natural disaster management and protection which consists of representatives of key ministries, institutions and provinces.

Generally speaking, macro-level disaster management is being carried out by Ministry of Labour and Social Welfare(LSW) and Science Technology and Environment Agency (STEA), while each technical ministry and province has responsibility over their respective environment relating the disaster management in close cooperation with MLSW, STEA; Lao Red Cross(LRC), the Ministry of Agriculture/Forestry and Ministry of Health etc.

³National Disaster Management Office. (Decree N^o. 158. / PM, 23 August 1999)

V. Legislation and International Cooperation

1. International environmental convention which Lao PDR has joined

- Convention on Climate Change (1995)
- Convention on Combating Desertification and Drought (1996)
- Convention on Biological Diversity (1996)
- Vienna Convention for the protection of the Ozone Layer (1998) and;

The Lao PDR has participated in many meetings on global issues: the Earth Summit (1992), the International Conference on Population and Development (1994), the World Conference on Women (1995), the World Summit on Social Development (1995), the UN Conference on Human Settlements (1996), the World Food Summit (1996) and the Climate Conference (1997).

All behalf, Country Parties Lao PDR is expected to adopt national legislation, strategy and action plan related natural disaster prevention and protection such as Environmental Protection Law (Articles 17-19) Prime Minister Decree/No.158 on mandate of National Disaster Management Office, Land law, Water Law, Forest Law and Agriculture Law concerning the effective implementation of the UNCCD.

In the practices, Lao PDR formulated its collective short- and long-term development priorities in its National Socio-Economic Development Plan relating enforcement of this convention the main priority programmes:

- Food production securiug self-sufficiency
 - Basic food security for all Lao people and maintenance of a buffer rice stock.
 - Attain target levels of per capita consumption of meat, eggs, fish and vegetables.
 - Diversification of crops, to improve nutritional status of Lao people and provide better opportunities for commercialisation of agricultural production
- Stabilisation/reduction of shifting cultivation
 - stop the increase in lash-and-burn agriculture as population grows.
 - Preserve watersheds and catchment areas
- Human resources development
 - health, education, employment and social security, environment and refugee repatriation
- Infrastructure development
 - provide the necessary infrastructural support for unstained economic growth through production, trade and the delivery of goods and services, domestically and abroad.
- Rural development
 - the rural development programmes consists of various components or programmes: household food security, rural infrastructure, health and education, sustainable use natural resources and etc...
- Improved socio-economic management and foreign economic relations
 - improve macro-economic management
 - expand trade relations, *direct* foreign investment and access to overseas development financing.
 - Facilitate Lao participation in regional groupings such as ASEAN and international conventions

Each of these tackles priority programmes a significant root cause of poverty in Lao PDR.

“Freeing our Country front the State of Underdevelopment by the Year 2020”⁴

Our long-term development goal is to free the country from the long term development goal (LDG) status by the year 2020 through sustained and equitable economic growth.

Quilting the LDG status means eradicating mass poverty. This implies two strategies: high economic growth with equity said access to social services and markets for everybody, particularly these in the rural areas. The objectives and targets set for the period 1997- 2000 stress the need to press ahead with our strategies and accelerate the transition of the Lao PDR's rural areas away from subsistence production to market production.

The financing of Lao development has been heavily dependent on foreign savings through loans, grants and private investment. Four fifths of public investment is funded by foreign capital inflows, since domestic savings, both government and private, are very low.

Economic development in the future will also be dependent on the ability of the Lao Government to improve the road and communication network throughout the country. There is only one road which links the north and the south and many secondary roads are only passable during the dry season. Tue Infrastructure Development Programme focuses on the modernisation, by the year 2000 of the transportation and telecommunication network nation-wide. While acknowledging that this situation needs urgent improvement, the Government still takes precautions to protect its environment such as natural disaster prevention and protection.

⁴Policy Statement of the sixth Party Congress, March 1996

2. Conclusion Issues and failure trend associated with the process of decentralisation in disaster management:

Even though the government of Lao PDR considered decentralized environmental management including land use, water resources and forestland management as one of the key national priority programmes to eradication of poverty in the whole country, and that a number of policy, legal frameworks and different decentralized disaster management approaches/ mechanisms and modalities have been formulated, adjusted and tested to support these efforts of decentralization, there are still however a number of constraints with regard to filling the institutional vacuums that have emerged from this decentralization process.

Major deficiencies concern the limited capacities and financial mechanisms at the provincial and district levels for carrying out management and development activities at local levels, continued appropriate training and establishment of support services are needed at provincial and district level. This needs to include training on the interpretation of the data and information collected to allow the identification and classification of focal sites to form the basis for promoting land use, water resources and forestland management plans to be tailored to different recommendation domains.

The legal enforcement related to the natural disaster prevention and protection, the Lao PDR has acceded to many legislation and national priority programmes, which address issues essential to the country's present and future environment well being and natural resources for sustainable development. Currently very little implementation, legislative or physical, has been undertaken.

Many elements of the disaster protection management have not yet been addressed legislatively, and should be dealt with right away.

Think you!