



Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Report on

NATIONAL CAPACITY NEEDS SELF-ASSESSMENT FOR GLOBAL ENVIRONMENT MANAGEMENT

For the three Rio Conventions:

United Nations Framework Convention on Climate Change

United Nations Convention to Combat Desertification

United Nations Convention on Biological Diversity

Vientiane Capital, April 2009





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Acronyms

ADPC	Asia Disaster Preparedness Centre
COM	Council of Ministers
CPI	Committee for Planning and Investment
DHM	Department of Meteorology and Hydrology
DLF	Department of Livestock and Fisheries
DOC	Department of Communication
DOI	Department of Irrigation
DOP	Department of Planning
GDP	Gross Domestic Product
GHG	Green House Gasses
HDI	Human Development Index
IUCN	World Conservation Union
INC	Initial National Communication
IPCC	Intergovernmental Panel on Climate Change
LDC	Least Developed Country
LRIAD	Land Resources Inventory for Agriculture Development
MAF	Ministry of Agriculture and Forestry
MCTPC	Ministry of Communication Transport Post and Construction
MEAs	Multi-lateral Environmental Agreements
MLSW	Ministry of Labour and Social Welfare
MOE	Ministry of Education
MOH	Ministry of Health
MRCS	Mekong River Commission Secretariat
NAP	National Adaptation Plan
NAPA	National Adaptation Plan of Action
NAFES	National Agriculture and Forestry Extension Service
NBCA	National Biodiversity Conservation Areas
NBSAP	National Biodiversity Strategy and Action Plan
NDMC	National Disaster Management Committee
NDMO	National Disaster Management Office
NEAP	National Environmental Action Plan
NES	National Environment Strategy
NEW	National Environment Health and Water Programme
NGO	Non-Governmental Organisations
NGPES	National Growth and Poverty Eradication Strategy
NPA	National Protected Areas
NTFPs	Non-timber Forest Products
PA	Protected Area
PAFO	Provincial Agriculture and Forestry Office
PMT	Project Management Team
PSC	Project Steering Committee
STEA	Science, Technology and Environment Agency
TWG	Technical Working Groups
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WREA	Water Resources and Environment Agency

**LETTER OF ACKNOWLEDGEMENT FROM HER EXCELLENCY
MME KHEMPHENG PHOLSENA, MINISTER TO THE PRIME MINISTER OFFICE,
HEAD OF WATER RESOURCES AND ENVIRONMENT ADMINISTRATION**

As the Minister to the Prime Minister's Office, Head of Water Resources and Environment Administration, the National Focal Point of the Lao PDR for the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD) and United Nations Convention to Combat Desertification (UNCCD) and the supervisor for the preparation of this National Capacity Needs Self Assessment for Global Environment Management (NCSA), I would like to express my sincere gratitude to the Government of the Lao PDR for its close direction and support to develop this assessment.

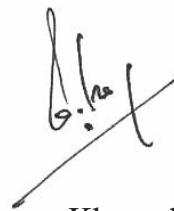
The Water Resources and Environment Administration has worked hard with line ministries and other government agencies as well as the donor partners to formulate the Lao NCSA. This is a realistic and achievable country-driven capacity needs assessment and programme of action addressing urgent and immediate needs and concerns of the country for building national capacities to comply with UNFCCC, UNCBD, and UNCCD. Through a series of consultations from the grassroots to policy-makers, national and provincial workshops, the NCSA was found to be one of the most important and necessary processes for the Government of the Lao PDR. The NCSA process has enabled the government to concentrate on capacity building needs and to upgrade the knowledge and awareness of government officials from all sectors concerned at central and local levels throughout the country. While the process has been complex and time consuming, results obtained by the assessment have been proved satisfactory to all stakeholders that have lead and participated in the assessment.

As we can see, the Lao NCSA is in line with objectives set out in the Socio-Economic Development Strategy, the Millennium Development Goals and the 2006-2010 National Socio-Economic Development Plan, which have been officially adopted by the National Assembly.

In preparing the Lao NCSA, I would like to express my sincere thanks to the leadership of the previous Science and Technology, Environment Agency and all the individuals in the Project Steering Committee,

which always gave clear and strong guidance. I should also like to thank all the representatives of technical working groups from different sectors who spared their time and dedicated their efforts, thoughts and ideas to the preparation of the NCSA.

Last but not least, I would like to thank all those who have contributed to the Lao NCSA for their dedication and hard work. I sincerely wish to thank our partners from the United Nations Development Programme and Global Environment Facility for their constructive and fruitful cooperation in preparing this important document. I would like to assure our commitment to the successful implementation of the Lao NCSA.



Khempheng Pholsena
Minister to the Prime Minister Office
Head of Water Resources and Environment
Administration, Vientiane

EXECUTIVE SUMMARY

The Lao People's Democratic Republic (Lao PDR) has ratified the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biological Diversity (UNCBD) and United Nations Convention to Combat Desertification (UNCCD) (also known as the “Rio Conventions”). The Lao PDR is classified as a country with limited capacity to fulfil its commitments and obligations as party to the Rio Conventions. In this regard the Government of Lao PDR (GOL) has received funding support from the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP) to conduct a National Capacity Needs Self-Assessment (NCSA) for Global Environment Management.

The NCSA process was divided into four steps: 1) preparation period; 2) data and information collection; 3) conducting the capacity needs self-assessment; and 4) undertaking an analysis to identify and prioritise capacity needs and cross-cutting issues associated with the Rio Conventions.

During the **preparation period**, a Project Steering Committee (PSC) comprising various key line agencies was established to oversee the overall NCSA process and to ensure the project achieved its objectives. A Project Management Team (PMT) was also created to manage and implement the project on a day-to-day basis, and to coordinate with all stakeholders to ensure the active participation of relevant sectors. In addition, three Technical Working Groups (TWGs) – one for each of the Rio Conventions – were established to undertake interviews, facilitate workshop activities and prepare assessment tools and techniques for the capacity self-assessment.

During the **data collection** phase, a wide variety of data and information was collected. This information was reviewed by the TWGs and presented to over 55 government and non-government offices in a number of participatory workshops and meetings at the centre and provincial levels. These workshops served to raise awareness of commitments and issues related to the Rio Conventions – and also allowed information to be gathered to assess both the implementation status and effectiveness of government commitments to the Rio Conventions.

During the capacity needs self-assessment phase the PMT and the TWGs set out a framework to identify key provisions of the Rio Conventions that are of special relevance to the Lao PDR. Through

additional central and provincial workshops with related stakeholders, and the use of a series of tools and assessment techniques, an analysis was made of:

- capacity constraints impeding the implementation of Convention articles;
- the root causes of capacity constraints;
- actions and measures needed to solve capacity constraints and meet Convention requirements; and,
- capacity needs to implement specific actions and measures.

As part of this assessment process, capacity strengthening measures were grouped into the following three categories:

- National level (or systemic level) requirements that focus upon the creation of “enabling environments” (the overall policy, economic, regulatory, and accountability frameworks within which institutions and individuals operate);
- Institutional level (or organisational level) needs that centre upon organisational performance and functioning capabilities, as well as the ability of an organisation to adapt to change; and,
- Individual level requirements that focus upon strengthening and changing attitudes and behaviours and skills, most frequently through imparting knowledge and developing skills through training. This process also involves learning by doing, participation, ownership, and processes associated with increasing performance through changes in management, motivation, morale, and levels of accountability and responsibility.

The final in-depth analysis phase reviewed progress made and focussed in on identifying capacity strengthening requirements that are of a cross-cutting nature. In other words what forms of technical assistance, training and support might be provided to the Lao PDR to simultaneously facilitate the implementation of all Rio Conventions? Having identified these cross-cutting needs, time was spent prioritising capacity building measures to identify the most critical and important actions to carry forward to implementation.

Throughout each of the four steps, the NCSA engaged with representatives of agencies at the centre and provincial levels – 24 meetings and

workshops were held that involved 55 offices and the active participation of more than 300 people. The overall process has been enormously beneficial in terms of raising government and wider national awareness of the Rio Conventions and the Lao PDR's commitments and obligations to them.

Key cross-cutting capacity strengthening needs were identified through the NCSA process, and listed according to priority per national, institutional and individual level.

National Level

1. Technical assistance to develop national strategies for climate change and to combat land degradation and drought.
2. Strengthen systemic capacity to implement the strategies under each of the Rio Conventions, with a special focus upon:
 - a) establishing and coordinating mechanisms between the three strategies (inter-institutional coordination), and between the centre and provincial levels; and,
 - b) legal and regulatory mechanisms to facilitate implementation.
3. Strengthen national information systems to:
 - a) document and profile environmental and natural resource conditions;
 - b) promote information exchange with domestic and international agencies; and,
 - c) raise public awareness of climate change, desertification and biodiversity conservation issues and agendas.

Institutional level

1. Institutional and organisational support to the agencies, secretariats and management offices assigned as the focal points to coordinate strategies and day-to-day activities under the Rio Conventions – including support to define mandates, roles and responsibilities.
2. Provide programme and technical support to provincial and district level line agencies to design and implement action plans that provide demonstrable models of sustainable resource use and management systems.
3. Technical support to develop a comprehensive research plan that addresses key cross-cutting issues that are relevant to the Rio Conventions.
4. Technical and managerial assistance to design and implement HR management system, including

training and development programmes, staff job descriptions, incentive and appraisal mechanisms.

5. Technical assistance to design and implement monitoring and evaluation processes, to enable line agencies to self-assess themselves in terms of the effectiveness of work programmes and responsibilities under the Rio Conventions.

Individual Level

1. A wide variety of domestic and international trainings and scholarships in technical fields related to each of the Rio Conventions – that provide staff at all levels with specialist technical knowledge and skills to implement and apply actions and activities included under the Rio Conventions.
2. Short and long courses in English language training (speaking, writing, reading and listening) for government staff in key government agencies at central and provincial levels.

To carry these capacity building needs forward to implementation this report includes a programme proposal with a series of objectives and actions to comprehensively address each of the above needs. Actions identified in the proposal are prioritised and statements made as to whether short, medium or long-term assistance is required to implement specific actions.

The NCSA process has been found to be a valuable and necessary project for the Government of the Lao PDR. While the process followed has been complex and time consuming it has helped raise broad national awareness of the Rio Conventions and actions that the public and private sectors must take at the national, provincial and district levels to implement these Conventions. The capacity strengthening needs identified in this report are genuine and real and the Government of Lao PDR is fully committed to strengthening its capacity and fulfilling its obligations to the Rio Conventions.

1. INTRODUCTION AND BACKGROUND

In the mid 1990s, the Lao People's Democratic Republic (Lao PDR) ratified three international environment conventions, namely: the United Nations Framework Convention on Climate Change (UNFCCC) in 1995, the United Nations Convention to Combat Desertification (UNCCD) in 1996 and the United Nations Convention on Biological Diversity (UNCBD) also in 1996 (also known collectively as the “Rio Conventions”). The Lao PDR is classified as a country with limited capacity to fulfil its commitments to the Rio Conventions – and has therefore received funding support from the Global Environment Facility (GEF) to conduct a National Capacity Needs Self Assessment (NCSA) for Global Environment Management.

NCSA is a mechanism for undertaking a comprehensive assessment of country capacities and associated capacity needs to fulfil the requirements of the Rio Conventions. In this respect, the aim of the NCSA is to identify areas where capacity building and programme assistance can be specifically targeted to enable the Lao PDR to honour its commitments to the Rio Conventions. The objectives of this NCSA report are to:

- familiarise readers from the highest levels of government to members of general public, both within Lao PDR and abroad, as to the background, approach and outputs of the Lao PDR’s NCSA;
- explore related capacity needs within and across the three thematic areas, as evident in the outputs and findings of the NCSA;
- provide a basis for the exchange of views and experiences both on the Lao PDR’s NCSA and the wider general approach of the NCSA; and,
- mobilise financial and technical support from donors and other parties to carry forward the tasks and activities identified as outputs and recommendations of the NCSA.

Throughout the NCSA process, government agencies have worked together to develop a series of recommendations that prioritise and target capacity building actions towards cross-cutting areas that will improve that Lao Government’s ability to implement the Rio Conventions. It is the responsibility of all government agencies – from the centre to the local level – to ensure these recommendations are carried forward and implemented. At the same

time, however, it is recognised that continued cooperation and support from GEF and other donor and development partners is critically important to fully enable the Lao PDR to honour its commitments to the Conventions – and it is hoped this report will facilitate engagement and dialogue between government agencies, both at the centre and local levels, and with a range of donor and development partners.

When commencing the NCSA in October 2004, the Government of the Lao PDR requested the Science Technology and Environment Agency (STEA) to take overall responsibility for the NCSA Project. During the Project’s implementation period, government re-organisation resulted in the separation of Science and Technology from Environment and the creation of new line agencies. The newly formed Water Resources and Environment Administration (WREA) came into being in May 2007 and assumed responsibility for the NCSA Project. This government re-organisation also included a re-shuffle of staff working on the NCSA, which contributed to delays in the finalisation of the Project. In addition, challenges and difficulties were faced in so far as the NCSA approach is a new concept and none of the project management team or government personnel involved had any knowledge or experience in this area. Moreover, as the “NCSA Resource Kit” offers general process guidelines rather than detailed prescriptive actions, the assessment process was conducted very much in the form of “learning by doing”. Despite these challenges, the Project enjoyed good cooperation and involvement among different sectors at both the centre and local levels. For implementation purposes, the NCSA process was divided into four steps:

- i) Preparation Period;
- ii) Data and Information Collection;
- iii) Conducting Needs Self-Assessment; and,
- iv) Analysis and identification of priority capacity needs and cross-cutting issues of the Rio Conventions.

In line with these steps, sub-section 1.1 below outlines the process and methodology for the NCSA. Section 2 summarises the environmental context of the Lao PDR in terms of the Rio Conventions, and reviews the Convention Articles that specifically relate to the Lao PDR. Section 3 presents the self-assessment through a series of tables – one for each

of the Rio Conventions. Section 4 focuses on the cross-cutting issues raised in the self-assessment and prioritises the capacity building needs. Section 5 sets out a proposed programme of technical and practical support that would deliver capacity building to each of the priority and cross-cutting areas identified in section 4. A final section 6 identifies a number of conclusions drawn from the NCSA process, and recommendations to carry the capacity strengthening programme forward.

1.1 National Capacity Needs Self Assessment Process

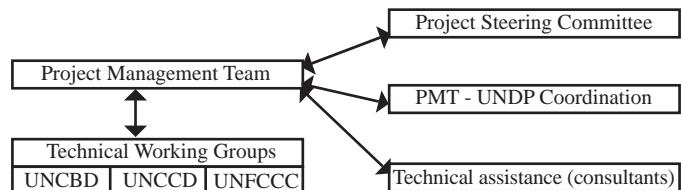
Preparation period

The Lao NCSA was initiated in October 2004 and, following a number of consecutive extensions, was completed in April 2009. At the start of the Project, a Project Steering Committee (PSC) was established chaired by the Director General of the Department of the Environment (Figure 1 below provides an illustration of the project's institutional set up). Agencies represented on the PSC included the: Ministry of Agriculture and Forestry, Ministry of Industry and Commerce, Central Lao Women's Union, Ministry of Labour and Social Welfare, Ministry of Health, Ministry of Education, Ministry of Foreign Affairs, Ministry of Public Work and Transport (see Annex 1 for a full list of designated officials). The PSC's remit was to directly supervise a Project Management Team (PMT) (see below) and ensure project goals, objectives and expectations were successfully achieved.

Consistent with the UNDP/GEF NCSA guidelines, a Project Management Team (PMT – equivalent to the Project Coordination Committee as referenced in the NCSA Guidelines) was also established consisting of officials from STEA's (and later WREA's) Department of Environment to assume responsibility for planning, directing and coordinating the implementation of NCSA activities on a day to day basis – as well as conducting the public consultation processes with stakeholders at the central and provincial levels (see Annex 2 for a list of persons appointed to the PMT).

In addition to the PSC and PMT, three Technical Working Groups (TWGs) – one for each Convention – were established to ensure full consultation with all relevant agencies and to manage on-going activities under the Rio Conventions. The leaders of the

Figure 1: NCSA Institutional Set-up



three TWGs were all from WREA's Department of Environment as the Department serves as the national focal point for each Convention. The TWGs were composed of officials from a number of departments (Annex 3 includes a list of the officials designated to each TWG).

- **UNFCCC TWG** consisted of technical officials from: Faculty of Forestry; Department of Industry; Department of Transport; Department of Forestry; Lao National Mekong Committee; Department of Meteorology and Hydrology; Department of Hygiene and Disease Prevention; Department of Agriculture; and Department of Electricity.
- **UNCCD TWG** consisted of technical officials from: National Disaster Management Office; National Agriculture and Forestry Research Institute; Department of Agriculture; Department of Meteorology and Hydrology and Department of Irrigation.
- **UNCBD TWG** consisted of technical officials from: Department of Forestry; Department of Livestock and Fishery; Department of Agriculture; Environmental Research Institute; Department of Environment; and, Faculty of Forestry.

Although, the NCSA is an internally managed and driven self-assessment process, both an international consultant and a national consultant were engaged during the planning and identification of tools and methodology phases. They supported the PMT and assisted the project on a day-to-day basis. The former was engaged for fifteen days in January 2005 while the latter was engaged from August 2004 to December 2005¹. An international consultant was also engaged for 17 days in October and November 2008 to finalise the content of this report.

Following the establishment of the TWGs, the first consultation meeting was convened on 21st October 2004 (see Annex 4 for a list of consultation meetings convened). The aim of this meeting was to familiarise TWG members with the background and rational of the NCSA process, together with roles, responsibilities and coordination mechanisms.

To assist the NCSA to achieve its objectives, a wider nationwide consultation workshop was organised on 24th November 2004. The workshop was attended by members of the three TWGs and representatives from relevant sectors at central and provincial levels. The workshop introduced the background and rational of the NCSA process and familiarised participants with the Project's cooperation and coordination mechanisms. It also provided an opportunity for all sectors and participants to make their contribution and, together with other workshops, ensured their active participation throughout the NCSA process, from initial planning to the final drafting and approval of this NCSA report. A full list of the 55 agencies who attended this and other consultative meetings and workshops is provided in Annex 5.

To commence the actual assessment process itself, a workshop on planning methodologies and approaches to capacity needs self-assessments was organised for the TWG members and 51 out of the 55 agencies listed in Annex 5 from the 24th–27th January 2005. At this workshop, detailed action plans for the assessment process were considered, discussed and approved. These plans later served as an important tool for the capacity assessment, and helped ensure the self-assessment process was conducted in a proper. The workshop also incorporated a training course that focussed on the identification and application of best practices for capacity needs self-assessments for the PMT and the TWGs, strengthening their capacity to carry out the assessment process.

Data and Information Collection Process

Data collection was an important component of the assessment process, especially with regard to identifying limitations and capacity constraints of each sector at the central, provincial and district levels in performing their commitments under the

BOX 1. Key Planning and Strategy Documents Reviewed

- The three Rio Conventions;
- Socio-Economic Development Strategy up to 2020 and 2010;
- Fifth 5-Year Socio-Economic Development Plan (2001-2005) and Sixth 5-Year Socio-Economic Development Plan (2006-2010);
- Laws on Natural Resources Management (Environment, Water, Land, Forestry, Industry and Mining);
- National Policy and Strategy on Poverty Eradication;
- National Environment Strategy to 2020 and Action Plan to 2010;
- National Biodiversity Strategy to 2020 and Action Plan to 2010;
- National Strategy on the Development of Industry and Handicraft;
- National Forestry Strategy to 2020;
- Lao People's Democratic Republic First National Communication on Climate Change 2000; and,
- Strategy on Environmental Education and Awareness to 2020 and Action Plan to 2010.

¹In hindsight, the project would have benefited from an extended period of technical support for two reasons. Firstly, in translating NCSA materials and directives into the Lao language some misinterpretations were made which served to confuse and mislead the PSC and PCC and for them to misunderstand the Project's objectives. This situation was not properly resolved until 2007. Secondly, the PCC and authors of the original Lao language version of this report would have benefited from additional technical assistance to help structure and draft the report.

Rio Conventions. Information was reviewed at this stage, which served as a basis and key reference point for further steps of the assessment.

At the outset, key planning documents listed in Box 1 were reviewed. To ensure a clear understanding of Convention Articles that are most relevant to Lao PDR, the Rio Conventions were translated into the Lao language. Information collected at this initial stage was however insufficient to initiate the actual capacity needs self-assessment. It was necessary to obtain additional information and to hold a number of additional workshops with the participation of the members of the PMT, the TWGs, and the central and provincial level sectors listed in Annex 5. During these workshops a matrix was set out for information collection and assessment needs. The following topics were included in the matrix:

- a review of key Articles from the Conventions that serve as national commitments;
- the implementation status of these commitments by sector; and,
- the effectiveness of the measures implemented.

Having reviewed each of the above issues, workshop discussions centred upon the selection of articles for detailed analysis and assessment of capacity building needs. The participatory discussions culminated in the selection of specific articles, which are set out and assessed in tables 3.1, 3.2 and 3.3 in Section 3 below. It was agreed in the workshops, and in subsequent PSC, PMT and TWG discussions that these were the most appropriate and applicable articles for detailed consideration – under UNCCD, for example, desertification is not a major issue in the Lao PDR so articles selected for detailed analysis centred upon mitigation of the effects of drought. Other similar justifications based upon ranking the relevance of the articles to the Lao PDR and government priorities were used in the selection of articles for inclusion in the tables 3.1, 3.2 and 3.3. Following the workshop, the PMT compiled information obtained from the review of documents and discussions during consultation workshop. Problems encountered at this stage included a shortage of information and low levels of data and information accuracy. Thus, the data collection process did not end at this stage and was continued as an on-going process throughout the NCSA.

Conducting the National Capacity Needs Assessment

To undertake the capacity needs assessment the PMT, in consultation with project stakeholders at centre and provincial levels and following the guidance of an international training consultant and UNDP, expanded the matrix described above to include the following issues:

- capacity constraints to implementing the convention articles;
- root causes of capacity constraints;
- actions and measures for solving capacity constraints to help meet Convention requirements; and,
- capacity needs to implement the specified actions and measures.

To review and screen the Convention articles two workshops were conducted at different times and venues to ensure a wide range of participation of parties at different levels. The PMT and key members of the TWGs acted as facilitators and each workshop lasted for 3-4 days. Before screening the articles all workshop participants were asked to review the documentation listed in Box 1. In both workshops participants were divided into three groups (UNFCCC, UNCBD, UNCCD) to review the convention articles in line with the prescribed matrix. Discussions at this stage also focused upon the practical and logistical constraints faced by the government together with its working policies and priorities. Capacity constraints were assessed at three levels – national (i.e. systemic), institutional (i.e. organizational) and individual. Following these group discussions, a plenary session was convened to discuss the outputs of each group session and ensure that findings were acceptable to all participants. The outputs of each workshop were synthesised and edited by the PMT, in consultation with key members of the TWGs to ensure workshop outputs were properly and accurately synthesised and recorded.

Analysis and identification of priority capacity needs and cross-cutting issues of the Rio Conventions

Following the consultations and assessments to identify capacity needs by Convention, a cross-cutting capacity needs assessment was conducted by organising a workshop with the participation of

the PMT, TWGs and key sectors at the centre and provincial levels (key participating agencies were from those listed in Annex 5). The assessment method used differed from those in previous steps as the participants were divided into three groups – with each group made up of a mix of individuals from each of the three TWGs. The assessment was based on the outputs of the capacity needs assessment under each of the Rio Conventions, and involved a series of ranking exercises that aimed to determine which of the capacity needs are of a cross-cutting nature. Recommendations made by each cross-cutting subgroup were presented and discussed in a plenary session to build consensus among all participants.

In summary, the PMT collaborated closely with the TWGs in planning and preparing different tools in advance of the capacity assessment workshops. Desktop assessments of key planning documents were undertaken together with a series of many interviews, focus group discussions and workshops with the agencies listed in Annex 5. During the workshops themselves, tools such as SWOT analysis and ranking exercises were employed. The process involved tackling complex and sometimes confusing issues – which required a clear understanding of objectives and purposes of the tasks. It was found that the selection of the leader for each sub-group session was critical to success – if the group leader had a sound understanding of the process, the results of the group discussion were generally satisfactory and the quality of the output was high. Limitations of the sub-group meetings included participation of staff with limited educational backgrounds and working experience related to the subject matter – which, on occasions, resulted in low participation.

2. LAO PDR ENVIRONMENTAL CONTEXT AND THEMATIC PRIORITIES

The first sub-section below reviews the environmental and development context of the Lao PDR. The review includes a summary of key environmental challenges and the country's efforts to strengthen its environmental legislation. This analysis, which is reproduced directly from a 2008 UNEP Lao country profile, is followed by three further sub-sections that review each of the Rio Conventions and how they relate to the Lao PDR.

2.1 Environmental context

As a landlocked country, the Lao PDR is located in the heart of Indochina peninsular and covers a total of area of approximately 236,800 square kilometers, three-quarters of which is mountainous terrain. The country is tropical and weather systems are influenced by monsoons. The population of the Lao PDR has reached 5,218,000, and is growing at an annual rate of 2.4%. The average population density is 21 per square kilometers, giving Lao PDR the lowest population density in Asia.

From an economic and political perspective, Lao PDR began opening up to the world in the 1990s, but despite reforms, it remains one of the poorest nations – a large majority of the population depend on agriculture and natural resources to subsist. Two-thirds of households have no access to electricity, half have no safe water supply and half of all villages are unreachable by all-weather roads during the rainy season. The main crop is rice, which is grown on the fertile floodplain of the Mekong River. Vegetables, fruit, spices and cotton are also grown.

Against this harsh reality, Lao PDR has an abundance of natural resources. Beneath the earth's surface, mineral deposits include tin, iron, coal, zinc, copper, gold, silver, sulphur and sapphires. Mining is being realized and prospecting surveys show that quantity and density of mineral deposits are quite high. On the surface the country has a wealth of forests, which comprise a variety of species, with many of high economic value. The forest regions are also rich in non-timber products such as shellac, benzoin, cardamom, pine resin, rattan and medicinal plants, and there is a wide range of fauna, including elephants, tigers, bears, deer and a newly-discovered species of deer called Saola.

The Lao PDR is crossed by many rivers and streams. 90% of Lao is located in the Mekong River basin and the river itself flows through 1,835 km of the country from north to south. Rivers and streams provide great potential for hydropower development with over half of the power potential of the lower Mekong Basin contained within Lao PDR. While agriculture and rural development remain central to both growth and poverty reduction, hopes for economic growth also centre around hydro-electricity, mining and tourism.

From an environmental perspective, the role of biodiversity and natural resources in Lao PDR's economy, especially their contribution to government revenue, export earnings and rural livelihoods, is greater than in any other country of the GMS. Hence conservation of these resources is viewed with great seriousness. Sustainable natural resource management and environmental protection have been government priorities for at least a decade. Programme such as community forest management attempt simultaneously to improve environmental conditions and the well-being of local populations. Important landmarks, reflecting policies favouring sustainable resource management include establishment of the Science, Technology and Environmental Agency in 1993 - which became the Water Resources and Environment Administration in 2007 - and the formulation in 2002 of the National Forestry Strategy 2020 and the National Biodiversity Strategy and Action Plan (NBSAP). Although the Lao PDR is a minor contributor to climate change, climate change at the global and regional levels may have significant impacts of the Lao PDR. Against this background, Lao PDR is in the process of developing its National Adaptation Programme of Action to Climate Change (NAPA).

In summary, and as concluded by the 2008 UNEP Lao PDR Country Profile, key environmental challenges facing the country include:

- deforestation and degradation of forests;
- a lack of enforcement and control mechanisms;
- degradation of biodiversity;
- encroachment by lowland farmers into neighboring uplands;
- catchment degradation;
- inadequate urban waste water treatment;
- overflow of drainage canals;
- low coverage of rural water supply and sanitation;
- industrial pollution; and,
- a lack of strong leadership in environmental affairs.

By way of contrast, the UNEP Country Profile recognises that the following significant legislation has been developed and approved to strengthen environmental management.

- Prime Ministerial Decree 03/PM on Land and Forest Allocation Policy 1992

- Prime Ministerial Decree No. 169/PM on Forestry and Land Use Management (superseded by Forestry Law of October 1996) 1993
- Decree No. 118 of the Council of Ministers on the Management and Protection of Wild Animals, Fisheries and on Hunting and Fishing 1992
- Prime Ministerial Decree No. 164 on National Biodiversity Conservation Areas 1993
- COM Decree 185, Defining the Prohibition of Certain Species of Wild Animals 1991
- Regulation on National Biodiversity Conservation Areas, Living Aquatic Resources and Wildlife Management 2001
- Minister of Industry and Handicraft Decree on Industry Management 1992
- Minister of Industry and Handicraft Decree on Discharges and Emissions 2006
- Law on the Promotion and Management of Foreign Investment 1991
- Forestry Law (Law 125) 1996 and amendment 2007
- Water and water Resources Law (Law 126) 1996
- Electricity Law 1996
- Mining Law 1997
- Land Law 1997 and amendment 2003
- Prime Ministerial Decree 99/PM on Land 1997
- Prime Ministerial Decree 03/PM on Land and Forest Allocation Policy 1992
- Environmental Protection Law 1999
- Regulation on Environment Assessment in the Lao PDR 2000

2.2 The United Nations Framework Convention on Climate Change and the Lao PDR.

Structure of the Convention

The Convention divides countries into two groups: Annex 1 Parties that are industrialised countries that have historically contributed to climate change; and Non-Annex 1 Parties that are primarily developing countries.

The Convention also establishes institutions like the COP, the Secretary of the Convention, the Subsidiary Body for Scientific and Technological Advice, and the Subsidiary Body for Implementation. The COP meets every year to review the implementation of the Convention, adopt decisions to further develop Convention's rules, and negotiate new commitments. The two subsidiary bodies meet at least twice a year to steer preparatory work for the COP.

The GEF and the Intergovernmental Panel on Climate Change (IPCC) work with the Convention, but are not attached to it. The GEF currently operates the Convention's financial mechanism, which channels funds to developing countries on a grant or loan basis. The IPCC is a crucial source of information on climate change and at five-year intervals it publishes comprehensive progress reports on the state of climate change science.

Under the Convention, Non-Annex I Parties are expected to submit an First and Second National Communication (FNC & SNC) containing greenhouse gas (GHG) inventories. The number of countries that have presented FNCs rose from just 22 in 1999 to 123 by April 2005 (and included Lao PDR).

Obligations for the Lao PDR

The Lao PDR has signed the UNFCCC as a Non-Annex I Party to the Convention with ratification taking place on 5th of January 1994 by the Transitional Authority and the Convention entering into force on the 21st March 1994. The Lao PDR also signed the Kyoto Protocol on 6th February 2003. With ratification of the Convention comes the

responsibility to fulfil certain expectations outlined in the Convention and associated instruments.

Being a member of Non-Annex I countries, Articles 4 to 6 of the Convention are of particular importance, and those articles of relevance to the Lao PDR are as follows²:

Article 4:

- (a) Develop, periodically update, and publish national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gasses³;
- (b) Formulate, implement, publish and update national programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks;
- (c) Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases in all relevant sectors;
- (d) Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems;
- (e) Cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas affected by drought and desertification, as well as floods;
- (f) Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimising adverse effects on the economy, on public health and on the quality

²Summarised information presented, for full text see:

http://unfccc.int/essential_background/convention/background/items/2853.php. Summarized information presented for each Article has been drawn from the Afghanistan NCSA

³The Convention's provisions concern all greenhouse gases not covered by the 1987 Montreal Protocol to the United Nations Convention on Protection of the Ozone Layer.

- of the environment, of projects or measures undertaken by themselves to mitigate or adapt to climate change;
- (g) Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;
- (h) Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies;
- (i) Promote and cooperate in education, training and public awareness related to climate change; and
- (j) Communicate to the Conference of the Parties information related to implementation, in accordance with Article 12.

Article 5 discusses research and systematic observation:

- (a) Support and further develop, as appropriate, international and intergovernmental programmes and networks or organisations aimed at defining, conducting, assessing and financing research, data collection and systematic observation, taking into account the need to minimise duplication of effort; and
- (b) Support international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, promoting access to, and exchange of, data and analyses.

Article 6 addresses education, training and public awareness:

- (a) Promote and facilitate at the national and, as appropriate, sub-regional and regional levels, and in accordance with national laws

and regulations, and within their respective capacities:

- i. The development and implementation of educational and public awareness programmes on climate change and its effects;
 - ii. Public access to information on climate change and its effects;
 - iii. Public participation in addressing climate change and its effects and developing adequate responses; and
 - iv. Training of scientific, technical and managerial personnel.
- (b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:
- i. The development and exchange of educational and public awareness material on climate change and its effects; and
 - ii. The development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries.

Of particular importance, all Parties to the Convention agree to compile an inventory of their greenhouse gas emissions (Article 4(a)), and submit reports known as a national communications that document actions being taken to implement the Convention (Article 4 (b)). These national communications are focused according to the following topics:

- Climate change mitigation measures;
- Provisions for developing and transferring environmentally friendly technologies;
- Provisions for sustainably managed carbon ‘sinks’;
- Preparations to adapt to climate change;
- Plans for climate research, observation of the global climate system and data exchange; and
- Plans to promote education, training and public awareness relating to climate change.

Kyoto Protocol

In 1997, an extension to the Convention that outlined legally binding commitments to emission cuts was adopted at COP 3 in Kyoto, Japan. The focus of the Kyoto Protocol is on the following six greenhouse gasses: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride. The Kyoto Protocol has legally binding emissions targets for industrialised countries and subsequent development of the rules for its implementation.

The Protocol's rules focus on:

- Commitments, including legally binding emissions targets and general commitments;
- Implementation, including domestic steps and a number of novel implementing mechanisms;
- Minimising impacts on developing countries, including use of the Adaptation Fund;
- Accounting, reporting and review, including in-depth review of national reporting; and
- Compliance, including a Compliance Committee to assess and deal with problems.

General commitments that apply to all Parties include⁴:

- Taking steps to improve the quality of emissions data;
- Maintaining national mitigation and adaptation programmes;
- Promoting environmentally friendly technology transfer;
- Cooperating in scientific research and international climate observation networks; and
- Supporting education, training, public awareness, and capacity building.

2.3 The United Nations Convention to Combat Desertification and the Lao PDR

Ratification of the Lao PDR signing the UNCCD took place on 19th December 1996, and it entered into force on 26th December 1996. With ratification of the Convention comes the responsibility for Parties to fulfil expectations outlined in the Convention and associated instruments.

The UNCCD has one objective, ‘...to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in affected areas.’ The Convention notes that achieving this objective will require long-term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level.

Articles 3 to 19 of the Convention, together with Annex II, are of particular programmatic importance to the Lao PDR and specifically address the following issues.

Article 3. Principles. Emphasises the importance of ensuring the full participation of local communities in decisions on the design and implementation of programme that combat desertification and/or mitigate the effects of drought. Similarly, this article calls for a spirit of international solidarity and partnership that secures effective coordination and cooperation in the sharing of knowledge and in the use of financial, human, organisational and technical resources.

Article 4. General obligations. Discusses the need for integrated approaches that address the physical, biological and socio-economic aspects of the processes of desertification and drought. Emphasises integration of strategies for poverty eradication into efforts to combat desertification and mitigate the effects of drought. Discusses importance of cooperation between parties.

⁴UNFCCC 2005 Caring for Climate: A guide to the Climate Change Convention and the Kyoto Protocol

Article 5. Obligations of affected country Parties. Highlights that affected country Parties must give due priority to combating desertification and mitigating the effects of drought. They should seek to establish strategies and priorities within the framework of sustainable development plans and/ or policies, to combat desertification and mitigate effects of drought. Discusses the need to address underlying causes of drought, paying special attention to socio-economic factors, promote awareness, and provide an enabling environment by strengthening relevant existing legislation, enacting new laws and establishing long-term policies and action programme.

Article 8. Relationship with other conventions. Coordination is encouraged, in particular with the UNFCCC and UNCBD.

Section 1. Action Programme

Article 9. Basic Approach. Requires that a NAP to combat desertification and mitigate the effects of drought be prepared and continuously updated using participatory processes and on the basis of lessons learned. Action programme should be closely interlinked with other efforts to formulate national policies.

Article 10. National Adaptation Plans (NAP) aim to identify the factors contributing to desertification and practical measures necessary to combat desertification and mitigate the effects of drought. Important attributes of these programme include – the incorporation of long-term strategies; integration with national policies for sustainable development; sufficient flexibility to cope with changing conditions; particular attention to preventative measures; the importance of enhancing national climatological, meteorological and hydrological capabilities; partnership; effective participation of all stakeholders; and regular reporting on the status of their implementation.

NAPs may also include the following drought mitigation measures – establishment or strengthening of early warning systems; strengthening of drought preparedness and management; establishment of food security systems; establishment of alternative livelihood projects; and development of sustainable irrigation programme.

Article 11. Sub-regional and regional action programme. Where appropriate, action programme that go beyond the national context can be prepared. These may include the sustainable management of transboundary natural resources, scientific and technical cooperation, and strengthening of relevant institutions.

Articles 12 – 14. Emphasis is placed on cooperation and coordination in the development and implementation of action programme.

Section 2. Scientific and technical cooperation

Article 16. Information collection, analysis and exchange. Emphasises coordination in the collection, analysis and exchange of data, including the establishment of early warning and advance planning for periods of adverse climatic variation in a manner that is accessible to local communities and decision makers.

Article 17. Covers research and development in the fields of combating desertification and/ or mitigating the effects of drought.

Article 18. Discusses transfer, acquisition, adaptation and development of environmentally sound, economically viable and socially acceptable technologies relevant to combating desertification and/ or mitigating the effects of drought, with a view to contributing to the achievement of sustainable development in affected areas.

Section 3. Supporting measures

Article 19. Capacity building, education and public awareness. Capacity building requires multiple approaches and is to be undertaken with full participation at all levels. Education and public awareness focuses on promoting an understanding of the causes and effects of desertification and drought, and of the importance of meeting the objective of UNCCD.

Annex II of the Convention presents the Regional Implementation Annex for Asia. This Annex provides guidelines and arrangements for the effective implementation of the Convention in the affected country parties of the Asian region. It begins by examining the particular conditions of the Asian region that are relevant to the Convention, following which Article 3 to 8 detail programmatic-related commitments.

Annex II, Article 3. NAPs are to be an integral part of broader national policies for sustainable development.

Annex II, Article 4. NAPs may involve the affected populations, encompass a survey of the state of the environment in affected areas, include participatory evaluations, involve the integrated management of drainage basins, and develop indicators and associated monitoring and evaluation systems.

Annex II, Article 5. Sub-regional and joint action programme are encouraged and may include agreed joint programme for the sustainable management of transboundary natural resources, capacity building, scientific and technical cooperation, particularly drought early warning systems and information sharing, and means of strengthening the relevant sub-regional and other organisations or institutions.

Annex II, Article 6. Regional activities for the enhancement of sub regional or joint action programme may include measures to strengthen institutions and mechanisms for coordination and cooperation at the national, sub-regional and regional levels.

Annex II, Articles 7 and 8. Address financial resources, cooperation, coordination and associated mechanisms.

2.4 The United Nations Convention on Biological Diversity and the Lao PDR

The Lao PDR became a signatory to the UNCBD on 19th December 1996. With ratification of the Convention comes the responsibility for Parties to fulfil expectations outlined in the Convention and associated instruments, including the 2010 Biodiversity Targets.

The UNCBD has three objectives: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources⁵. Articles 6 to 19 of the Convention are of particular importance and specifically address the following issues.

Article 6: General measures for conservation and sustainable use emphasises the importance of national biodiversity conservation planning focusing

on the development of national strategies, plans or programme for both conservation and sustainable use of biological diversity. In addition to specific and targeted plans, this Article calls for conservation and sustainable use of biological diversity to be integrated into relevant sectoral or cross-sectoral plans, programme and policies.

Article 7: Identify and monitor components of biological diversity important for its conservation and use, with particular attention being given to elements that require urgent conservation measures and those that offer the greatest potential for sustainable use. Monitor processes and categories of activities with significant adverse impacts on conservation and sustainable use of biological diversity. The systematic collection, organisation and analysis of associated information will facilitate the early identification of any adverse or harmful trends to biological diversity, thereby enabling rapid mobilisation and action to prevent severe and irreversible damage.

Article 8: In-situ conservation includes both the establishment of a system of protected areas where special measures need to be taken to conserve biological diversity, and the conservation of important biological diversity beyond the boundaries of these areas. Protected area establishment and management requires the development of guidelines for the selection, establishment and management of ecologically important and highly bio-diverse areas. As protected areas exist, not in isolation but in a wider landscape, important biological diversity and ecosystem processes located around these areas and elsewhere in a country must be identified and managed with a view to ensuring their conservation and sustainable use. Where adverse activities have degraded ecosystems and threatened species, there is a need to develop and implement rehabilitation plans. In all of the above processes, the importance of respecting, preserving and maintaining knowledge, innovations and practices of indigenous and local communities whose traditional lifestyles support conservation and sustainable use of biological diversity is of great importance. Finally, the development or maintenance of necessary legislation for the protection of threatened species and populations is mentioned.

⁵Summarised information presented, for full text see: <http://www.cbd.int/convention/convention.shtml>.

Article 9: Adopt measures for ex-situ conservation, preferably within Lao PDR itself. This includes the adoption of measures for the recovery, rehabilitation and where necessary the reintroduction of threatened species.

Article 10: Sustainable use of components of biological diversity through a variety of mechanisms that include integrating considerations of conservation and sustainable use of biological resources into national decision-making, encouraging cooperation between government authorities and the private sector in developing methods for sustainable use, and supporting local people to both use natural resources sustainably and implement rehabilitation plans in degraded areas.

Article 11: Incentive measures are required that promote, economically and socially, conservation and sustainable use of biological diversity.

Article 12: Research and training encompasses the establishment, maintenance and support of programme for scientific and technical education and training in the conservation and sustainable use of biological diversity.

Article 13: Public education and awareness is necessary from the local to the national level.

Article 14: Impact assessment and minimising adverse effects through the introduction of environmental impact assessments and other procedures that will ensure the environmental consequences of programme and policies that are likely to adversely impact biological diversity are taken into account.

Article 15: Access to genetic resources shall be facilitated for environmentally sound uses.

Article 16: Access to and transfer of technology will be facilitated for the attainment of the objectives of this Convention.

Article 17: Exchange of information shall be facilitated and will include the results of technical, scientific and socio-economic research, as well as information on training and surveying programme, specialised knowledge, indigenous and traditional knowledge.

Article 18: Technical and scientific cooperation shall be promoted, in particular in developing countries.

Article 19: Handling of biotechnology and distribution of its benefits shall be realized in a fair and equitable manner by all Parties, especially developing countries.

Strengths and weaknesses related to the implementation of the Rio Conventions in Lao PDR

Through the implementation of the Rio Conventions of Lao PDR over the years, it is possible to outline both the strengths and weaknesses in terms of their implementation, which can be summarised as follows:

Strengths

- Implementation of the Rio Conventions has shown a clear vision and strong efforts of Lao PDR to participate in global environmental management. Specifically, the implementation of Rio Conventions has assisted Lao PDR to become well-known; has demonstrated Lao PDR's commitment to obligations at the international level; and has increased international cooperation. Furthermore, it has also contributed sustainable development and poverty reduction.
- Lao PDR has gained some technical and financial support to implement the Rio Conventions in Lao PDR. For example: The National Biodiversity Strategy and Action Plan; the First National Communication on Climate Change; National Adaptation Plan of Action; and the National Report on Land Degradation.
- Furthermore, the process of developing and modifying laws and regulations has taken the Rio Conventions into account. For example, the modification of Law on Forest, Law on Land and the Law on the Environment (which is being realized at present), the development of the decree on Environmental and Social Impact Assessments, have all considered Lao PDR's obligations related to the Rio Conventions.
- There is strengthened capacity at the institutional level and training has been provided to staff who are responsible for work related to the Rio Conventions.

Weaknesses

- There are a number of challenges associated with natural resource based growth and socio-economic development.
- Increasing obligations and commitments of the Lao government in implementing and extending the Rio Conventions, especially related to increased workloads and responsibilities of key institutions and staff.

3. ANALYSIS OF CAPACITY CONSTRAINTS AND OPPORTUNITIES FOR CAPACITY STRENGTHENING IN THE THREE THEMATIC AREAS

Having reviewed the environmental context of the Lao PDR and its obligations under the Rio Conventions, focus now turns to the self-assessment of capacity needs for the Lao PDR to honour its commitments and obligations to the Conventions. Tables 3.1, 3.2 and 3.3 below set out a matrix to present and discuss these needs. Section 1.1 above describes the process and form of participatory consultations that were followed to develop the format for the table, which is split into three sections – Table 3.1 focuses upon UNFCCC, Table 3.2 on UNCCD and Table 3.3 on UNCBD. Hence progress and developments, limitations, constraints, underlying causes of constraints and opportunities for capacity building are presented separately under the jurisdiction of the Rio Conventions. Sections 4 and 5 of this report carry the conclusions from this assessment forward by focusing the discussion on capacity needs that cut across the Rio Conventions.

To ensure the accuracy of the findings and conclusions from the capacity needs assessment, workshops were conducted to correct and revise the proceedings, improving accuracy and checking consistency with government policies and direction. The needs identified were further analysed by the PMT in a further consultation workshop with the TWGs and sectors concerned at central and provincial levels. This additional workshop reviewed the capacity needs under each of the Rio Conventions. Amendments and updates to the capacity needs were recorded and prioritised by giving a score to each of the capacity needs.

TABLE 3.1 UNFCCC Capacity Needs Assessment

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Root Causes of Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
Key Convention Requirements					
Article 4: The Commitments (summarised).					
Article 4 (a) Develop, update & publish national inventories of anthropogenic emissions of all greenhouse gases					
Article 4 (b) Formulate, implement, publish & update national programme containing measures to mitigate climate change by addressing anthropogenic emissions					
Article 4 (c) Development, application, diffusion, and transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases					
Article 4 (d) Sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases					
Article 4 (e) Preparing for adaptation to the impacts of climate change; develop and elaborate integrated plans for water resources and agriculture, and for the protection and rehabilitation of areas affected by drought, desertification, and floods					
Article 4 (f) Take climate change considerations into account in their relevant social, economic and environmental policies and actions					
Inventories of sources of GHG (CO_2 , CH_4 , N_2O , CO , NOX_6) undertaken in four areas (energy, agriculture, forest, solid waste) for the year 1990 as part of First National Communication Project (1997-2000)	Inventories of sources	Undertaking GHG inventories is relatively new to Lao PDR	I National level: Lack of clear policy on climate change and directives for compiling GHG inventories and monitoring emissions Climate change agenda poses further challenges for the limited human resources of government	Develop strategy, policies, laws and regulations on climate change Develop directives for compiling GHG inventories and monitoring emissions and incorporate these into revisions of existing laws to enable all sectors to implement climate change measures Develop a research programme on appropriate technologies to reduce emissions of GHG Develop and update information network to improve availability of current and reliable information; national public information campaign on alternative energy	Technical assistance to build national capacity to develop and implement strategy policies, laws and regulations on climate change Training for central (all sectors) and provincial level staff in GHG inventories, emissions monitoring, climate change and monitoring up-take of alternative energy systems and technologies at centre, provincial and district levels Development of University teaching modules that specifically address climate change
Projects and programme developed and implemented that reduce greenhouse gasses using appropriate technologies, including the introduction of solar power, biogas stoves, improved household stoves, and so on	Implementation of projects to reduce greenhouse gasses and promote solar energy has been realised on a small scale, and there is considerable scope for expansion	Data and information on GHG, alternative energy projects and associated activities and take up of alternative energy by local communities is scattered and inaccurate		Develop a systematic training for government and university staff in climate change, GHG inventories and undertaking and analysing emissions	Commence activities to measure and monitor emissions across all sectors
Cross sector National Steering Committee on Climate Change, Secretariat and Climate Change Office Committee on Climate Change to assume responsibility for climate change agenda recently created (2008)	National Steering Committee on Climate Change is a new institution				

CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide, CO = carbon monoxide; NO_x = nitrogen oxide

Implementation situation Effectiveness of Measures Implemented	Root Causes of Capacity Constraints Capacity Constraints	Measures for Removing Capacity Constraints Capacity Needs	
<p>Cross sector National Steering Committee on Climate Change, Secretariat and Climate Change Office to assume responsibility for climate change agenda has recently been created (2008)</p> <p>II. Institutional level:</p> <ul style="list-style-type: none"> Lack of a strategic plan for the implementation of UNFCCC Lack of inter- and intra-institutional coordination mechanisms, both between sectors and between the national and provincial levels on climate change 	<p>Institutional, organisational, and systems management training and resources for staff of NSCCC Secretariat and Climate Change Office</p> <p>Technical assistance and human resource support to NSCCC Secretariat and Climate Change Office – including support for other line agencies to enable them to engage and work with the NSCCC Secretariat</p> <p>Integrate UNFCCC issues into current working agendas of line agencies to help raise national and provincial awareness in a more systematic and continuous manner</p> <p>Review and update climate change roles and responsibilities of all government sectors</p> <p>Encourage, promote, implement and improve climate change related research design and survey and data collection methods on a continuous basis across all key sectors; provide equipment and tools for survey and data collection</p> <p>Develop incentive systems to reward good working practices as part of a comprehensive human resource development plan</p> <p>Develop incentive systems to reward good working practices as part of a comprehensive human resource development plan</p> <p>Increase work ownership and responsibilities through developing ToRs and systems of appraisal</p>	<p>Support to develop national information system on climate change and to create an information exchange with international bodies</p> <p>Technical support to develop a comprehensive human resource management system</p> <p>Provide training to technical staff</p>	<p>Training and scholarships in climate change and GHG related issues</p> <p>English classes</p>

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
<p>Article 4.1 (g) Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies.</p> <p>Article 4 (h) Promote exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies</p>		<p>I. National level:</p> <ul style="list-style-type: none"> Limited budget, equipment, resources and staff to undertake research International assistance and cooperation for the research agenda is not continuous Research needs and priorities have not been clearly defined or communicated to key sectors or the provincial levels Climate change awareness programme have not yet reached the public and private sectors <p>First National Communication (2000) completed and disseminated NAPA elaborated (completed in 2009)</p>	<ul style="list-style-type: none"> Establish climate change office to raise the profile of this issue at a national level Prioritise research needs Strengthen institutional capacity and expand bodies in charge of information dissemination; consult with public and private sector bodies to develop localised research priorities Poor dissemination of research and information Limited public and private sector interest due to little knowledge of climate change issues <p>II. Institution level:</p> <ul style="list-style-type: none"> Poor coordination between line agencies and the centre and provincial levels Insufficient staff and equipment to undertake research Low level of staff responsibility and motivation within research institutions <p>Inadequate staff incentives</p>	<ul style="list-style-type: none"> Technical assistance to support climate change office to identify research priorities; resource support to develop documentation and resource centre Support to develop public awareness campaign, which emphasises research needs to gather information to understand the consequences of climate change Training, technical and resource support in research design, methodologies and results analysis Support to develop research partnerships with regional and international partners Support to develop comprehensive HR systems in research institutions <p>III. Individual level:</p> <ul style="list-style-type: none"> Low levels of staff responsibility Limited knowledge of technical issues Lack of familiarity with research methods and processes Lack of familiarity with research methods and processes <p>Progressive training programme for technical staff to impart research skills and practices, including PhD scholarships</p>
				<ul style="list-style-type: none"> Develop clear research responsibilities for all staff Develop coherent and progressive training programme for technical staff, including possibilities to conduct PhD research

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Root Causes of Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
4.1.i Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including non-governmental organisations.	Article 6: Education, Training and Public Awareness: Article 6 (a) Promote and facilitate: (i) The development and implementation of educational and public awareness programme on climate change and its effects; (ii) Public access to information on climate change and its effects; (iii) Public participation in addressing climate change and its effects and developing adequate responses; and (iv) Training of scientific, technical and managerial personnel. Article 6 (b) Cooperate in and promote: (i) The development and exchange of educational and public awareness material on climate change and its effects; and (ii) The development and implementation of education and training programme.	Awareness on climate change raised by conducting workshops in every province (attended by more than 450 provincial leaders from the public and private sectors) and through media reports as part of First National Communication Project (GEF 1997-2000) Basic climate change information integrated into university curriculum Short-term in-country training organised in 2006 for 30 senior technical staff from government line agencies	I. National level: Awareness raising and information dissemination on climate change did not embrace all sectors at the centre and provincial levels – more needs to be done to raise awareness and understanding throughout the public and private sectors Poor quality and standard of student learning due to low teaching staff knowledge and skills University staff have very limited knowledge and technical information on climate change Technical staff participating in climate change to their sectors	Government agencies to establish units to coordinate and raise awareness of climate change issues within their sector Promote and encourage key sectors to engage with NUoL on climate change issues Seek international university partnerships to develop teaching curriculum, materials, and capacity Raise public and private sector awareness on climate change issues in the Party and State organisations Develop public awareness raising materials in Lao language	Technical assistance to design, develop and implement comprehensive and on-going public information and awareness strategy – across all key sectors 'Training of trainers' initiative for core team of university staff on climate change issues Technical support to develop a basic curriculum on climate change for the formal education system
4.1.ii Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including non-governmental organisations.	Article 6: Education, Training and Public Awareness: Article 6 (a) Promote and facilitate: (i) The development and implementation of educational and public awareness programme on climate change and its effects; (ii) Public access to information on climate change and its effects; (iii) Public participation in addressing climate change and its effects and developing adequate responses; and (iv) Training of scientific, technical and managerial personnel. Article 6 (b) Cooperate in and promote: (i) The development and exchange of educational and public awareness material on climate change and its effects; and (ii) The development and implementation of education and training programme.	Awareness on climate change raised by conducting workshops in every province (attended by more than 450 provincial leaders from the public and private sectors) and through media reports as part of First National Communication Project (GEF 1997-2000) Basic climate change information integrated into university curriculum Short-term in-country training organised in 2006 for 30 senior technical staff from government line agencies	II. Institution level: Most government sectors do not have environmental units or units responsible for disseminating information and raising awareness on the relevance of climate change to their sectors	No comprehensive climate change education and awareness raising plan Concept of climate change is relatively new	Technical assistance to develop comprehensive climate change education and awareness raising plan Organise meetings to widely

	<p>Limited understanding of importance of climate change</p> <p>Limited number of teachers and lecturers on climate change</p> <p>Universities are under resourced</p>	<p>resource support to establish climate change units in key line agencies</p>
<p>Between 2000 and 2008 approximately 5 government technical staff have attended training in different overseas countries</p>	<p>Government agencies do not understand the importance of climate change issues</p> <p>Insufficient resources to commit to climate change agenda</p> <p>Limited incentives and facilities available to staff</p> <p>III. Individual level:</p> <p>Knowledge and skills of staff in relation to climate change is inadequate</p> <p>Limited experience in disseminating information and raising public awareness in global issues</p> <p>Limited number of qualified and experienced teachers and university staff</p>	<p>Develop human resources with expertise in the area of climate change</p> <p>Further training of existing technical staff on climate change</p> <p>Training of staff on education and awareness raising methodologies and techniques</p>
	<p>Climate change is a relatively new concept</p> <p>Staff have not received specialised training in the field of climate change</p>	<p>Training opportunities for national and provincial sector staff in climate change issues, with special focus on their sector</p>
		<p>Training of teachers</p>

TABLE 3.2 UNCCD Capacity Needs Assessment

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Root Causes of Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
<p>Article 4 General obligations</p> <p>4.1 Parties shall implement obligations under UNCCD; need to coordinate effects and develop a coherent long-term strategy at all levels.</p> <p>4.2 Integrated approach addressing physical, biological and socio-economic aspects of the processes of desertification and drought. Integration of strategies for poverty eradication into efforts to combat desertification and mitigate the effects of drought. Importance of cooperation between parties.</p> <p>Article: 5 Obligations of Affected Country Parties.</p> <p>5.a Give priority to combine the desertification and mitigation the effect of drought, and allocate adequate resources in accordance with their circumstances and capabilities.</p> <p>5.b Establish strategies and priorities, within the framework of sustainable development plans and/or policies, to combat desertification and mitigate the effects of drought.</p> <p>5.d Promote awareness and facilitate participation of local populations.</p> <p>5.e Provide an enabling environment by strengthening relevant existing legislation, enacting new laws and establishing long-term policies and action programmes.</p> <p>Article 9 Basic approach</p> <p>An NAP to combat desertification and mitigate the effects of drought and shall be prepared and continuously updated using participatory processes and on the basis of lessons learned. Action programmes should be closely interlinked with other efforts to formulate national policies for sustainable development</p> <p>Article 10 National Action Programmes (NAPs)</p> <p>NAPs aim to identify the factors contributing to desertification and practical measures necessary to combat desertification and mitigate the effects of drought.</p>	<p>I. National level:</p> <ul style="list-style-type: none"> Implementation of laws has not been effective at the centre, provincial and district levels Legislation contains general principles – implementation guidelines, rules and regulations are required Laws and policies do not specifically address desertification and the impacts of drought 	<ul style="list-style-type: none"> Delays in the development of decrees to implement laws Some legislation and regulations overlap or contradict one another Lack of technical staff and technical assistance at the provincial and district levels to implement strategies and programmes and enforce laws, rules and regulations 	<ul style="list-style-type: none"> No overarching strategy (National Action Programme) to combat land degradation and mitigate the impacts of drought Lack of human, and financial resources at the national level to ensure drafting and implementation of laws, rules and regulations Lack of human and financial resources at the provincial and district levels to implement the impacts of drought Lack of knowledge concerning the location and impacts of drought and land degradation 	<ul style="list-style-type: none"> Develop National Action Programme to combat land degradation and mitigate the impacts of drought Strengthen laws and regulations in the area of land degradation Develop mechanisms to rank programmes and projects in accordance with government priorities 	<p>Technical assistance and resource support to develop national action plan on land degradation and mitigating the impacts of drought</p> <p>Develop national programme to build the capacity of staff in the areas of land degradation and mitigating drought</p> <p>Legal expertise to mainstream drought and land degradation considerations into national legislation</p> <p>Technical assistance and resources to develop human resource training programme, with a focus upon UNCCD issues</p>

	II. Institution level: Dissemination of strategies and legislation was not broad enough or followed through in detail at the provincial and district levels Some institutions at centre and provincial levels have limited decision-making power to enforce legislation Ineffective coordination mechanism between relevant line agencies Lack of a clear coordination mechanism between government departments Lack of UNCCD information passed to the provincial and district levels Poor staff management and motivation	<p>Decision-making powers assigned to centre and provincial bodies are unclear</p> <p>Lack of monitoring and evaluation systems for the implementation of legislation and regulations</p> <p>Unclear division of roles and responsibilities between centre and provincial bodies</p> <p>Lack of staff, vehicles, materials and budget for centre-level staff to raise awareness of UNCCD issues at the provincial and district levels</p> <p>National education standards are very low</p> <p>Lack of incentives and reward system for good work practices</p> <p>Review the decision-making powers of centre and provincial level bodies; strengthen the capacity of line agencies to implement rules and regulations</p> <p>Review and clarify the division of roles and responsibilities of relevant sectors at centre and provincial levels</p> <p>Establish drought and flooding early warning systems that include long-term monitoring and assessment</p> <p>Integrate UNCCD issues into current working agendas of line agencies to help raise national and provincial awareness in a more systematic and continuous manner</p> <p>Monitor and evaluate the implementation of legislation and regulations</p> <p>Develop human resource development programme</p> <p>Design and implement an incentive system to reward and encourage staff learning, development and work responsibilities</p>	<p>Technical assistance to review roles and responsibilities of land management line agencies</p> <p>Strengthen capacity of provincial land management bodies to use and manage land in a sustainable manner</p> <p>Technical expertise to develop drought and flooding early warning systems</p> <p>Technical assistance and support to strengthen coordination between relevant sectors for the rehabilitation of forest and degraded land</p> <p>Technical assistance and support to integrate UNCCD issues into projects and programme that strengthen land management capacity at the provincial level</p> <p>Training and resource support to enable monitoring and evaluation programme</p>	<p>Organise trainings, study tours and scholarships to improve knowledge and skills of staff</p> <p>English training to facilitate participation in international workshops and studying opportunities</p>
	III. Individual level: Low staff numbers Limited staff awareness and understanding of different legislation Low level of staff understanding of their roles and responsibilities Insufficient equipment and resources	<p>Many staff do not accept personal responsibilities and have poor work ethics</p> <p>Limited staff placement and recruitment</p>	<p>Develop human resources with expertise in the area of land degradation and mitigating impacts of drought</p> <p>Further training of existing technical staff on land degradation and mitigating the impacts of drought</p>	

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Root Causes of Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
<p>Art. 19. Capacity Building, Education and Public Awareness.</p> <p>19.1.b Strengthening the capacity through training and research at the national level in the field of desertification and drought.</p> <p>19.1.d Fostering the use and dissemination of knowledge and know-how and practices of local people in technical cooperation programmes, wherever suitable.</p> <p>5.d promotes awareness and facilitates the participation of local populations, particularly women and youth, with the support of non-governmental organisations, in efforts to combat desertification and mitigate the effects of drought.</p>	<p>Drought and Flood Control Committee and activities established</p> <p>Research undertaken and technical and indigenous knowledge on reduction of land degradation and drought relief was promoted by means of:</p> <ul style="list-style-type: none"> - Training of farmers and gardeners - Rehabilitation and reforestation and stabilisation of slash and burn activities - Research on forestry, rice varieties, horticulture, Fisheries, Livestock and tea and coffee, land use and land allocation, up-land productivity research 	<p>No monitoring and evaluation of Drought and Flood Control Committee work plan and activities</p> <p>Research and extension activities inappropriate to local conditions</p> <p>Lack of inclusion of issues related to land degradation in the University curriculum</p> <p>Limited public awareness raising campaigns on land degradation and impacts of drought</p>	<p>Mandate, roles and responsibilities of Drought and Flood Committee are unclear</p> <p>Research is not regarded as an important activity</p> <p>Lack of qualified and experienced research staff</p>	<p>Review mandate, role, responsibilities of Drought and Flood Control Committee</p> <p>Assess research needs, strengthen research design; coordinate and implement with Partner agencies including NGOs</p> <p>Strengthening capacity of universities and other research institutions in the fields of land degradation, drought and sustainable land management</p> <p>III. National level:</p> <p>Members of the Drought and Flood Control Committee are all key government officials already engaged and committed with substantial responsibilities</p> <p>Coordination mechanism between Committee and sectors did not function well</p> <p>Overlapping roles and responsibilities at the centre and provincial levels</p> <p>Lack of incentives and reward system for good work practices</p> <p>Set up database and comprehensive information and communication systems</p> <p>Expand research and extension services to local areas</p> <p>Develop incentive and reward system</p> <p>Develop strategy to educate, train and share knowledge among staff (and local communities)</p>	<p>Technical assistance to support the role and functions of the Drought and Flood Control Committee</p> <p>Technical support to strengthen University capacity in this area</p> <p>Technical assistance and resource support to facilitate replicable research methodologies</p> <p>Technical and resource assistance to: a) strengthen the mandate, roles and responsibilities and working practices of the Drought and Flood Control Committee; and, b) develop and improve national information systems to combat land degradation and drought</p> <p>Technical assistance and resources to develop human resource training programme, with a focus upon UNCCD issues</p> <p>Trainings and scholarships</p>
				<p>Limited staff numbers and experience</p> <p>Limited staff placement and recruitment</p>	

TABLE 3.3 UNCCBD Capacity Needs Assessment

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Root Causes of Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
<p>Article: 6. General Measures for conservation and sustainable use of biodiversity (C&SU).</p> <p>6.1 Develop national strategies, plan or programmes for the C&SU of BD that shall reflect the Convention measures relevant to the contracting party.</p> <p>6.2 Integrate C&SU of BD into relevant sectoral Plans.</p>					
Completed Biodiversity strategy to 2020 and action plan to 2010 (NBSAP)	Dissemination of (NBSAP) from centre to provincial and district levels was ineffective Poor take up of biodiversity action plans at the provincial and district levels	I. National level: Lack of clear direction and effective plan to mobilise support and proceed with the implementation of the NBSAP II. Institution level: Limited staff numbers Low staff technical knowledge, capacity and experience Lack of equipment and vehicles constrains implementation of working plans and activities at the provincial and site levels	Importance assigned to the elaboration and implementation of the strategy was not high Biodiversity strategy and action plan to be given more importance Integrate UNCBD issues into current working agendas of line agencies to help raise national and provincial awareness in a more systematic and continuous manner	Technical support and resource assistance to strengthen the dissemination of legislation and regulations related to conservation and sustainable use of biodiversity – and to improve coordination between relevant sectors Technical support to the implementation of NBSAP	Technical support and resource assistance to strengthen the dissemination of legislation and regulations related to conservation and sustainable use of biodiversity – and to improve coordination between relevant sectors Technical support to the implementation of NBSAP
III. Individual level: Skills and experience of staff working on biodiversity is very limited Low awareness and motivation of many staff especially at the provincial level					
Lack of incentives and motivation Lack of ownership of work plans and programmes					
Scholarships, domestic and overseas training opportunities for centre and provincial level staff					

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
<p>Article: 7. Education and monitoring</p> <p>7.1.2 Identify and monitor key (Keystone) components of BD important for its C&SU, paying particular attention to those requiring urgent conservation and those which offer the greatest potential for SU.</p> <p>7.4 Maintain databases for the above identification and monitoring.</p>	<p>Studies realised and data collected on:</p> <ul style="list-style-type: none"> - endangered and near extinct aquatic and wild animals - key and endangered plants and genetic sources of flora - ecotourism and biodiversity issues - key insects <p>Monitoring body established</p>	<p>I. National level:</p> <ul style="list-style-type: none"> Limited budget available for research Little or no access to modern technology and research methods No natural history museum <p>Monitoring is taking place but on a limited scale</p> <p>Methodology used for keeping plant and animal samples was substandard and needs revising</p>	<p>Research into biodiversity is not regarded as an important priority</p> <p>Lack of specialised research experts and modern equipment</p> <p>Insufficient resources to construct and develop a natural history museum</p>	<p>Improve data collection and work with national and international agencies to conduct high-level meetings and workshops to disseminate information related to the importance and study of biodiversity</p> <p>Provide and seek matching funds for construction of natural history museum</p>
		<p>II. Institution level:</p> <ul style="list-style-type: none"> Lack of research experts and technical expertise Lack of research equipment and vehicles 	<p>Low government priority given to biodiversity research.</p> <p>Lack of budget to train and develop human resources for biodiversity</p> <p>Insufficient wider programme budget for biodiversity research</p>	<p>Technical assistance to: design and implement a research plan focusing upon endangered and threatened flora and fauna, including invaded alien species</p> <p>Develop a national database on flora and fauna</p>
		<p>III. Individual level:</p> <ul style="list-style-type: none"> Low staff numbers, limited staff skills and knowledge 	<p>Staff lack motivation and there are limited opportunities for training and education</p> <p>Problems associated with low pay and opportunities compared to private sector</p>	<p>Centre and provincial level assistance to develop human resources for the study and monitoring of biodiversity conservation, particularly endangered species</p>

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Root Causes of Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs
Article: 8 In-situ Conservation.					
8.1 Establish a system of PAs.					
8.5 Promote environmentally sound and sustainable development in areas adjacent to PAs with a view to furthering the protection of these areas.					
8.6 Rehabilitate and restore degraded ecosystem and promote the recovery of threatened species through the development and implementation of plans or other management strategies.					
8.8 Prevent the introduction of control or eradicated those alien species, which threaten ecosystems or species.					
Declared network of twenty national conservation areas totalling 3.3 million hectares (14% of total land area) in 1993 under prime minister's decree 164/P.M Established provincial conservation forests, biodiversity conservation areas, water resource protection areas and aquatic and wildlife sanctuaries including buffer zones Sustainable development models implemented in some PAs	Boundaries of conservation areas have yet to be defined Implementation of national, provincial and district PA regulations is patchy, ineffective and not consistently applied – implementation of PA law, rules and regulations is not a high government priority	I. National level: Limited public and private sector awareness and understanding of the importance of biodiversity Limited human resources allocated to PA management at the provincial level The number of people trained and experienced in PA management and sustainable use of biodiversity is very low	Low national income and average per-capita income – the majority of the people continue to depend upon nature and forest resources for their livelihoods The concept of sustainable use of biodiversity is relatively new Government lacks management experience in the sustainable use of biodiversity Ineffective dissemination of PA law, rules and regulations Conservation and development of PAs is not a high government priority	Capacity building programmes that enable local people to develop alternative sustainable livelihoods Establish a fund for biodiversity management Mobilise domestic and international funding sources Use different techniques for dissemination of legislation and regulations so that it can reach the local communities Promote commercial forestry production in some areas – to help fund sustainable use of biodiversity in priority areas	Provide training and support to alternative livelihood programmes and initiatives focusing upon the rehabilitation of degraded ecological systems Provide training and support for the design and implementation of integrated conservation and development programmes Train government staff to identify, document and promote forms of local and indigenous knowledge that promote sustainable use of biodiversity conservation
Established areas for forest rehabilitation Defined boundaries of conservation forests Developed regulations for the management of forest conservation areas including	II. Institution level: Limited budget allocated to centre and provincial agencies to manage PAs Insufficient budget to a) train staff in PA management techniques and b) work with local communities to promote sustainable use of biodiversity	PAs cover extensive areas and are used as hunting grounds for local communities – these areas are also largely inaccessible by road, and there is insufficient budget to manage and regulate resource use No sustainable financing mechanism exists for PAs and budget allocation is very low – and falls a long way short of implementation needs Limited budget for staff training and development No meaningful incentive mechanisms	Establish and develop a mechanism to raise funds that are dedicated to PA management Mobilise domestic and international funding sources to develop coherent short, mid and long-term HR training programme – and link to incentive system and logical career progression	Support to strengthen the PA network – especially the capacity to define prioritise and manage forest and biodiversity conservation areas that are representative of the Lao PDR's diverse ecosystems Technical support for the development of a sustainable financing system	

<p>aquatic and wildlife sanctuaries</p> <p>Identified new species of trees</p> <p>Undertook biodiversity surveys to prioritise areas for conservation</p> <p>Projects and programmes developed to promote sustainable use of NTFPs</p>	<p>III. Individual level:</p> <p>Staff have limited knowledge and experience – many fail to accept ownership of designated roles and responsibilities</p>	<p>Most staff are insufficiently motivated to self-learn to acquire new knowledge and skills</p> <p>Limited opportunities for quality education and training</p> <p>Limited knowledge of foreign languages, notably English, especially at provincial and district levels</p>	<p>Conduct workshops and study tours at both centre and local levels to prioritise biodiversity conservation objectives.</p> <p>Train and deploy staff where needed</p> <p>Organise financial management training</p>
			<p>Domestic and international study tours and exchange visits</p> <p>English language training</p>

Implementation situation	Effectiveness of Measures Implemented	Capacity Constraints	Measures for Removing Capacity Constraints	Capacity Needs

Article: 12 Research and training.

12.1 Establish and maintain programmes for scientific and technical education and training in measures for identification conservation and sustainable use of biodiversity and its components and provide support for such education and training for specific needs of development countries.

Article: 13 Public Education and Awareness

13.1 Promote and encourage understanding of importance of, and the measures requires for, the conservation of biodiversity, as well as its propagation through the media, and the conclusion of these topics in educational programmes and –

13.2 cooperate as appropriate, with other states and international organisations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biodiversity.

4. OPPORTUNITIES FOR SYNERGISTIC AND CROSS-CUTTING CAPACITY STRENGTHENING APPROACHES

The results of NCSA cross-cutting analysis are presented in table 4.1 below. In this table, capacity needs identified through the wider assessment process under each Convention (as detailed in tables 3.1, 3.2 and 3.3 above) have been inserted in the first three columns under each Convention. These are grouped according to their level – national, institutional and individual. The fourth and final column summarises

in order of priority the cross-cutting elements and capacity building priorities of these overall needs. At this stage of the analysis it was found that confusion had occurred between the levels – for example, institutional needs were sometimes presented as national needs, and individual needs were sometimes presented as institutional needs. This confusion was partially corrected during the report writing phase. Table 4.1 seeks to cluster the capacity building needs under the correct (national, institutional and individual) levels. The table is followed by a brief discussion of key issues raised in this cross-cutting analysis.

TABLE 4.1 Identification of Cross-cutting Issues under the Rio Conventions

	Capacity Needs under UNFCCC	Capacity Needs under UNCCD	Capacity Needs under UNCBD	Prioritised Cross-cutting Needs and Issues
National level	<ul style="list-style-type: none"> • Technical assistance and resource support to develop national action plan on land degradation and mitigating the impacts of drought • Develop national programme to build the capacity of staff in the areas of land degradation and mitigating drought • Legal expertise to mainstream drought and land degradation considerations into national legislation • Technical assistance and resources to develop human resource training programme, with a focus upon UNCCD issues • Technical assistance to support the role and functions of the Drought and Flood Control Committee • Technical support to strengthen University capacity in this area • Technical assistance and resource support to facilitate replicable research methodologies • Train Government staff to identify, document and promote forms of local and indigenous knowledge that promote sustainable use of biodiversity conservation • Support for curriculum development in biodiversity conservation • Technical and financial assistance to set out coherent policies and action plans to facilitate research and study – and promote public awareness of – biodiversity conservation 			
	<ul style="list-style-type: none"> • Technical assistance and resource support to strengthen the dissemination of legislation and regulations related to conservation and sustainable use of biodiversity – and to improve coordination between relevant sectors • Technical support to the implementation of NBSAP • Technical and financial assistance to: a) design human resource training programme in research methods; and b) provide appropriate modern equipment • Provide training and support to alternative livelihood programmes and initiatives focusing upon the rehabilitation of degraded ecological systems • Provide training and support for the design and implementation of integrated conservation and development programmes • Train Government staff to identify, document and promote forms of local and indigenous knowledge that promote sustainable use of biodiversity conservation • Support for curriculum development in biodiversity conservation 	<ul style="list-style-type: none"> 1. Technical assistance to develop national strategies for climate change and to combat land degradation and drought 2. Strength systemic capacity to implement the strategies under each of Rio Conventions, with a special focus upon: a) establishing and coordinating mechanisms between the three strategies (inter-institutional coordination), and between the centre and provincial levels; and, b) legal and regulatory mechanisms to facilitate implementation 3. Strengthen national information systems to: a) document and profile environmental and natural resource conditions; b) promote information exchange with domestic and international agencies; and, c) raise public awareness of climate change, desertification and biodiversity conservation issues and agendas 	<ul style="list-style-type: none"> 1. Technical assistance to develop national strategies for climate change and to combat land degradation and drought 2. Strength systemic capacity to implement the strategies under each of Rio Conventions, with a special focus upon: a) establishing and coordinating mechanisms between the three strategies (inter-institutional coordination), and between the centre and provincial levels; and, b) legal and regulatory mechanisms to facilitate implementation 3. Strengthen national information systems to: a) document and profile environmental and natural resource conditions; b) promote information exchange with domestic and international agencies; and, c) raise public awareness of climate change, desertification and biodiversity conservation issues and agendas 	<ul style="list-style-type: none"> 1. Technical assistance to develop national strategies for climate change and to combat land degradation and drought 2. Strength systemic capacity to implement the strategies under each of Rio Conventions, with a special focus upon: a) establishing and coordinating mechanisms between the three strategies (inter-institutional coordination), and between the centre and provincial levels; and, b) legal and regulatory mechanisms to facilitate implementation 3. Strengthen national information systems to: a) document and profile environmental and natural resource conditions; b) promote information exchange with domestic and international agencies; and, c) raise public awareness of climate change, desertification and biodiversity conservation issues and agendas

Institutional level	<ul style="list-style-type: none"> • Institutional, organisational and systems management training and resources for staff of NSCCC Secretariat and Climate Change Office • Technical assistance and human resource support to NSCCC Secretariat and Climate Change Office – including support for other line agencies to enable them to engage and work with the NSCCC Secretariat • Support to develop national information system on climate change and to create an information exchange with international bodies • Technical support to develop a comprehensive human resource management system • Training, technical and resource support in research design, methodologies and results analysis • Support to develop research partnerships with regional and international partners • Support to develop comprehensive HR systems in research institutions • Technical assistance to develop comprehensive climate change education and awareness raising plan • Technical assistance and resource support to establish climate change units in key line agencies 	<ul style="list-style-type: none"> • Technical and resource assistance to build capacity of forest and conservation agencies at the centre and provincial levels • Technical support to design and develop a sustainable financing system for biodiversity conservation • Technical assistance to design and develop an incentive and reward-based working system • Technical assistance to: design and implement a research plan focusing upon endangered and threatened flora and fauna, including invaded alien species • Develop a national database on flora and fauna • Support to strengthen the PA network – especially the capacity to define prioritise and manage forest and biodiversity conservation areas that are representative of the Lao PDR's diverse ecosystems • Support to strengthen the PA network – especially the capacity to define prioritise and manage forest and biodiversity conservation areas that are representative of the Lao PDR's diverse ecosystems • Technical support for the development of a sustainable financing system • Support to design and implement HR and development programme • Support to develop training programmes and staff development in biodiversity conservation and sustainable livelihood issues • Design and develop a teaching curriculum for conservation, management and sustainable use of biodiversity • Develop and improve a resource centre for the management and sustainable use of biodiversity 	<ol style="list-style-type: none"> 1. Institutional and organisational support to the agencies, secretariats and management offices assigned as the focal points to coordinate strategies and day-to-day activities under the Rio Conventions <ul style="list-style-type: none"> - including support to define mandates, roles and responsibilities 2. Provide programme and technical support to provincial and district level line agencies to design and implement action plans that provide demonstrable models of sustainable resource use and management systems 3. Technical support to develop a comprehensive research plan that addresses key cross-cutting issues that are relevant to the Rio Conventions 4. Technical and managerial assistance to design and implement HR management system, including training and development programmes, staff job descriptions, incentive and appraisal mechanisms 5. Technical assistance to design and implement monitoring and evaluation processes, to enable line agencies to self-assess themselves in terms of the effectiveness of work programmes and responsibilities under the Rio Conventions
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Individual level	<ul style="list-style-type: none"> • Training and scholarships in climate change and GHG related issues • English classes • Progressive training programme for technical staff to impart research skills and practices, including PhD scholarships • Training opportunities for national and provincial sector staff in climate change issues, with special focus on their sector • Training of teachers 	<ul style="list-style-type: none"> • Organise trainings, study tours and scholarships to improve knowledge and skills of staff • English training to facilitate participation in international workshops and studying opportunities • Trainings and scholarships 	<ul style="list-style-type: none"> • Scholarships, domestic and overseas training opportunities for centre and provincial level staff • Centre and provincial level assistance to develop human resources for the study and monitoring of biodiversity conservation, particularly endangered species • Domestic and international study tours and exchange visits • English language training • Support to develop HR training and development programme – including training of trainers programme 	<ul style="list-style-type: none"> 1. A wide variety of domestic and international trainings and scholarships in technical fields related to each of the Rio Conventions – that provide staff at all levels with specialist technical knowledge and skills to implement and apply actions and activities included under the Rio Conventions 2. Short and long courses in English language training (speaking, writing, reading and listening) for Government staff in key Government agencies at the centre and provincial levels

The recommendations for capacity building identified in table 4.1 are somewhat general but do provide examples of key issues of direct relevance to the Rio Conventions. At the same time, however, further discussion between these agencies and donors interested to strengthen capacity in these areas is required. The Lao Government is open, ready and willing – at both the centre and provincial levels – to engage in detailed discussions to clarify issues and jointly develop solutions. By way of example, Annex 6 provides an organisational overview of how Lao Government will establish a climate change secretariat. At the time of writing it is not clear what technical support or assistance will be provided to facilitate and expedite the work programmes and responsibilities of this secretariat. Yet it is known that technical assistance is required at almost every level – including, for example, to the seven units that make up the climate change office (e.g. technical support on measuring GHG emissions and promoting clean development mechanisms), and to the national standing committee and secretariat themselves in terms of familiarising members with current and technical knowledge related to climate change issues and prioritising work programmes. At a senior Government level, similar support is also required to establish secretariats to assume responsibility for drought and desertification and biodiversity conservation. To help ensure the next generation of Government staff are better equipped to address global challenges support is also required to develop a national curriculum that includes technical issues related to the Rio Conventions.

From an institutional perspective, while the Lao PDR has a series of laws and legal frameworks in place to facilitate national compliance with the Rio Conventions, offices and agencies responsible for the implementation of these laws at the provincial level lack the capabilities and resources (manpower, skills and budgets) to police and enforce these regulations. Hence both comprehensive and targeted support is required at the provincial and district levels to create models for replication in other areas – and also to initiate the on-going process of public awareness raising, which is critical to success in all areas. Also central to strengthening institutional capacity is the development of human resource management systems to, for example, provide clear job descriptions and annual appraisals, staff training, incentives and career progression.

At the individual level, the Lao Government is making progress with its growing but still limited financial resources to recruit staff and strengthen the capacity of its line agencies. Technical assistance and support is required to properly induct and train new staff and to impart the knowledge and skills they require to become future leaders in the fields of climate change, biodiversity conservation and drought mitigation. While the Lao Government recognises it is not possible for every individual staff member to benefit from overseas training, if Lao PDR is to make genuine and meaningful progress towards honouring its commitment under the Rio Conventions, English language training, overseas scholarships and trainings for central and provincial level staff must be a fundamental component of any capacity building initiative.

5. PROPOSED CAPACITY STRENGTHENING PROGRAMME UNDER THE RIO CONVENTIONS

To carry forward capacity building needs and strengthen capacities at each (national, institutional and individual) level, this final section of the report sets out a programme of support that includes components to specifically address the needs identified above. The aim this programme is to implement the recommendations made in this report and to ensure the Lao Government is able to fulfil its obligations as a signatory to the Rio Conventions.

5.1 Main objectives

The seven main objectives of the programme are as follows.

- 1) Strategies and action plans on climate change and land degradation developed and implemented alongside the NBSAP. This objective embraces the first national priority identified in table 4.1 above. It is essential the implementation phase of these strategies be coordinated with the implementation of the NBSAP, which would involve measures and technical assistance specified in the second national priority of table 4.1 including support to develop legal and regulatory mechanisms.

- 2) National Information System on climate change, land degradation and biodiversity developed and operational. Consistent with the third national priority of table 4.1, information systems are needed to improve data collection, retrieval, coordination and dissemination – and to serve a strategic role in raising public awareness on Convention related issues.
- 3) Institutional and legal frameworks for organising and coordinating obligations and responsibilities under the Rio Conventions are efficient and effective. In line with the second national priority and the first and second institutional priorities of table 4.1 to strengthen inter-governmental coordination, this objective is key to both building local capacity and dissemination of models of sustainable land and resource use.
- 4) Develop and implement a strategy for public education and awareness-raising on climate change, land degradation and biodiversity. This objective is central to the success of any government effort to address its obligations under the Rio Conventions. Table 4.1 identifies the need for greater awareness of issues and priorities identified in the Rio Conventions both by government line agency staff at the centre and provincial levels – and also among the wider public.
- 5) Research activities on climate change, land degradation and biodiversity undertaken with results widely disseminated. The third national priority of table 4.1 is to strengthen information systems that relate to the Rio Conventions, while the third institutional priority of table 4.1 highlights the need to develop a comprehensive and cross-cutting research plan. This objective is in line with these priorities and also embraces the first individual priority of table 4.1 to improve specialist technical knowledge and skills of government and research staff.
- 6) Systems and mechanisms to monitoring, evaluate and predict the impacts and effects of climate change, land degradation and biodiversity are strengthened and implemented. Related to objective 5 above, this objective directly embraces the third national priority, to strengthen national information systems and also the third institutional priority, to initiate cross-cutting research activities – it is also central to the fifth institutional priority to enable line agencies to assess the effectiveness of work programmes and management systems to address their responsibilities under the Rio Conventions.
- 7) Develop institutional mechanisms that strengthen and improve the participation and contribution of villagers in environmental management are developed. This objective is in line with the second institutional priority listed in Table 4.1 to provide demonstrable models of sustainable resource management systems at the provincial and district levels – it is also central to creating institutional frameworks to help replicate sustainable livelihoods in the Lao PDR. This objective will also include a number of opportunities to provide technical training related to the Rio Conventions to government staff at the provincial and district levels.

Table 5.1 below translates these programme objectives into programme outputs, and provides a series of capacity development actions under each of the seven programme areas. Table 5.1 links the relevance of the actions to the Rio Conventions – and also details: the line agency in charge of the action at each level; the priority level assigned to the action; and the timeframe (or duration) of technical assistance required for implementation. Three levels of priority – high, medium and low – have been assigned. These relate directly to the policy priorities of the Lao Government, and also to practical and logistical constraints and considerations faced by the Government. The timeframe column envisages the duration of time over which capacity building and other support activities would be required – short-term envisages a support period of up to two years, medium-term envisages a support period of three to five years; and, long-term envisages a support period greater than six years.

TABLE 5.1 Capacity Strengthening Programme under the Rio Conventions

Actions	Convention	Level of Needs	Level of Priority	Time Frame	Organisation in charge						
	UNFCCC	UNCBD	National	Institutional	Individual	Low	Medium	High	Short-term	Mid-term	Long-term
OUTPUT 1: Strategies and action plans on climate change and land degradation developed and implemented along side the NBSAP.											
1.1 Strengthen capacity to develop a national strategy and action plan on climate change; and combating land degradation and minimising drought event.			✓	✓	✓	✓		✓	✓	✓	WREA, MAF & NLA
1.2 Strengthen capacity to develop and implement programmes for rehabilitating degraded ecological systems.				✓	✓			✓	✓	✓	MAF
1.3 Strengthen capacity to implement strategies and legislation related to the conservation and sustainable use of biodiversity.			✓	✓	✓	✓		✓		✓	MAF & WREA
OUTPUT 2: National Information System on climate change, land degradation and biodiversity developed and operational											
2.1 Strengthen capacity to develop and manage a national information system on climate change and exchange information with the international community.			✓				✓		✓	✓	WREA
2.2 Strengthen capacity to develop and upgrade national information system on combating land degradation and minimising drought events.				✓		✓		✓		✓	MAF
2.3 Strengthen capacity to develop a national database system on plants and animal species.					✓	✓		✓		✓	MAF
2.4 Strengthen capacity to develop a national information system on the environment and natural resources that encompasses key issues related to UNCCD, UNCBD, UNFCCC and UNCCD.					✓	✓		✓		✓	WREA

Actions	Convention	Level of Needs	Level of Priority	Time Frame	Organisation in charge
					WREDA
3.1 Strengthen human resource management systems of offices delegated to oversee Conventions and the cooperation mechanism between relevant sectors at central and local levels.		✓	✓	✓	✓
3.2 Strengthen and consolidate legislative framework with respect to the Conventions		✓	✓	✓	✓
3.3 Develop institutional mechanisms, e.g. working groups, that ensure improved coordination between sectors that work on issues related to the Rio Conventions		✓	✓	✓	✓
3.4 Build capacity to implement strategies and legislation related to the conservation and sustainable use of biodiversity through legal technical training			✓	✓	MAF & WREA
3.5 Convention related issues integrated into development plans, sector policies, investment plans and national legislation		✓	✓	✓	WREA & MPI
3.6 Strengthen institutions and coordination mechanism between relevant sectors at central and local levels for the management and the sustainable use of natural resources.		✓	✓	✓	MAF & WREA

Actions	Convention	Level of Needs	Level of Priority	Time Frame	Organisation in charge					
	UNFCCC	UNCBD	National	Individual	Low	Medium	High	Short-term	Mid-term	Long-term
OUTPUT 4: Develop and implement a strategy for public education and awareness-raising on climate change, land degradation and biodiversity.										
4.1 Strengthen public awareness on the provisions of the Conventions and / or associated processes of drought, biodiversity loss and climate change.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.2 Develop and introduce a basic curriculum on drought, biodiversity loss and climate change into the formal secondary and tertiary education systems.	✓		✓		✓		✓	✓	✓	✓
4.3 Increase public awareness on combating land degradation and minimising drought effects.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.4 Develop and improve teaching curriculum on the conservation and sustainable use of biodiversity.		✓		✓		✓		✓	✓	✓
4.5 Improve and expand educational system on biodiversity science and technology to meet international standards.		✓		✓		✓		✓	✓	✓
4.6 Increase public awareness on biodiversity, especially endangered plant and animal species for the purpose of their conservation and sustainable use.		✓	✓	✓	✓	✓	✓	✓	✓	✓
4.7 Strengthen capacity to raise public awareness on conservation and sustainable use of natural resources.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.8 Develop the knowledge of Government staff, university professors and teachers about issues that relate to the Rio Conventions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Actions	Convention	Level of Needs	Level of Priority	Time Frame	Organisation in charge					
	UNCBD	National	Individual	Low	Medium	High	Short-term	Mid-term	Long-term	WREA & NUOL
OUTPUT 5: Research activities on climate change, land degradation and biodiversity undertaken and with results widely disseminated.										
5.1 Build capacity to undertake scientific research on climate change	✓			✓		✓		✓		✓
5.2 Research and promote the application of appropriate technology to minimise greenhouse gas emissions.	✓			✓		✓			✓	NSTA
5.3 Research and promote sustainable agricultural production technology that is appropriate for local areas.		✓		✓		✓		✓		MAF
5.4 Set up and upgrade research centres on the conservation and sustainable use of biodiversity.			✓		✓	✓		✓		MAF
5.5 Strengthen capacity to research and promote appropriate techniques and technology for the management and sustainable use of natural resources.	✓	✓	✓		✓	✓		✓		MAF & NSTA

Actions	Convention	Level of Needs	Level of Priority	Time Frame	Organisation in charge						
					UNCBD	National	Institution	Individual	Low	Medium	High
OUTPUT 6: Systems to monitor, evaluate and predict the impacts and effects of climate change, land degradation and biodiversity loss are strengthened and implemented.											
6.1 Strengthen capacity of institutions to survey, minimise and prevent greenhouse gas emissions.		✓	✓	✓					✓		✓
6.2 Strengthen capacity to manage, rehabilitate and promote sustainable use of forest resources.		✓	✓	✓					✓		✓
6.3 Strengthen capacity of institutions to manage sustainable land use.			✓				✓			✓	MAF
6.4 Strengthen capacity of the National Disaster Committee (National Drought & Flood Committee)		✓	✓	✓				✓	✓		MOLSW
6.5 Upgrade the knowledge and skills of staff involved in researching and monitoring biodiversity conservation and sustainable use, especially of endangered species.			✓				✓			✓	MAF
6.6 Study and conduct surveys on endangered and threatened plant and animal species including alien invasive species.			✓				✓			✓	MAF
6.7 Strengthen capacity to allocate and manage protected areas which cover all ecological systems in the Lao PDR.			✓				✓			✓	MAF
6.8 Strengthen capacity to manage, rehabilitate and promote the sustainable use of natural resources.		✓	✓	✓				✓		✓	MAF & WREA

Actions	Convention	Level of Needs	Level of Priority	Time Frame	Organisation in charge	
	UNCBD	National	Individual	Short-term	Mid-term	Long-term
OUTPUT 7: Institutional mechanisms that strengthen and improve the participation of villagers in environmental management are developed						
7.1 Promote local and indigenous knowledge of sustainable use of NTFPs in and around NPAs		✓	✓	✓	✓	MAF & LNF
7.2 Promote gender participation in rehabilitating degraded land and minimising drought event.		✓	✓	✓	✓	MAF & LWA
7.3 Promote and apply local peoples' (and ethnic minorities) knowledge and wisdom in managing land degradation and drought events.		✓	✓	✓	✓	MAF & LNF
7.4 Promote and apply local people's (and ethnic minorities) knowledge and wisdom for management conservation and use of natural resources		✓	✓	✓	✓	MAF, LNF & WREA

5.2 Implementation Measures

To carry forward the above programme a number of immediate actions are recommended. In the first instance it is recommended this report be widely disseminated among key government agencies at the central and provincial levels, donors, development agencies and with other international partners and research organisations. In particular there is a pressing need for consultation at both the centre and provincial levels to divide and assign roles and responsibilities among key agencies and, critically, to ensure priority tasks identified in the report are integrated with current work plans to be implemented without delay.

Funding to implement the capacity strengthening programme, actions and activities will need to come from a variety of sources. Government funds are required and should be allocated to key sectors at the centre and provincial levels – the consultations recommended immediately above to assign implementation responsibilities could be used to identify minimum immediate and short-term budget requirements. Other potential sources of funds and support include:

- Environmental Protection Fund;
- Contributions and programme support from the private sector, both foreign and domestic, working in Lao PDR – especially from larger projects that have vested interests in the extraction and use of natural resources; and,
- International donors and development agencies both in Lao PDR and abroad – many of whom should be invited to participate in the central and provincial level discussions recommended immediately above. This meeting should also be seen as an opportunity to build synergy between donors and development partners, and to coordinate, agree and secure written commitments for complementary sector and programme support.

Institutions at the central and provincial levels should extend and implement the recommendations of this report, developing programmes and projects that include activity plans, specific working groups, and clearly divide responsibilities. Focus must be placed on strengthening institutional capacities and strengthening the ability of individuals to deal with the present situation and to address the real needs of central and provincial levels. In this regard, ranking capacity strengthening activities according to level of priority and to match with the need of working areas is necessary.

6. CONCLUSIONS

The NCSA process and approach has been of critical importance for Lao PDR. It has been especially valuable for the Lao Government for three main reasons. Firstly, it has helped improve the knowledge and understanding of government officials at the centre and provincial levels in many working areas related to the Rio Conventions. Secondly, it has allowed the same officials, their offices and the wider government machinery to carefully consider its obligations and working priorities to the Rio Conventions. Thirdly, the process has – as primarily intended – provided a platform for all parties to assess and prioritise government needs for capacity-building. The process has therefore been an immensely valuable exercise that has enabled the Lao Government to identify capacity needs associated with fulfilling its obligations and commitments under the Rio Conventions. In summary, the NCSA has identified key cross-cutting capacity strengthening needs that will enable the Government, international donors, the private sector and others to efficiently and effectively target capacity strengthening activities to where they are most required. It is equally true, however, to recognise that many lessons have been learned by the PSC, PMT and TWG members, and that these include the following.

- Detailed budget planning for all project and programmeme activities should be realized prior to the implementation of each task, and costs need to be revised and recorded to ensure project and programme managers are fully informed and up to date with financial issues.
- The design and management of workshop activities and approaches need to be properly tried and tested by workshop facilitators before conducting public consultations with different stakeholders. This helps ensure approaches run smoothly by improving general understanding as to how methods will work in practice. It also helps to clarify people's roles and responsibilities, and builds confidence and consensus that events will run smoothly during actual implementation.
- Translation of technical and programmeme documents needs to be done carefully and precisely to prevent misunderstandings and

miscommunication of critical information. Where uncertainties emerge technical guidance and assistance should be sought to ensure clarity and consistency of meaning.

- Careful consideration needs to be given to identifying appropriate stakeholders – and selecting experienced officers from the chosen line agencies – to ensure effective participation. In some instances inexperienced officers found it difficult to participate in the detailed discussions and dialogue.
- The lessons learned at each step of the Lao PDR NCSA processes should be studied and shared with other countries in the region and international arena. This will assist and improve the way in which others set about their own NCSA, and will also help develop and improve future capacity needs assessment exercises in these areas. It would also be helpful for staff from different countries to discuss and exchange ideas on the NCSA process – to learn from each others experiences.
- While the NCSA process in Lao PDR has been a difficult and complex process, that was complicated when errors were made translating the programmeme documents into the Lao language, the Lao Government fully supports and validates the findings and conclusions of the NCSA project. The capacity strengthening needs identified in this report are genuine and real and the Lao Government is fully committed to strengthening its capacity and fulfil its obligations to the Rio Conventions.

ANNEX 1: NCSA Project Steering Committee

	Name	Position & Office	Organisation
1	Mr. Soukata VICHIT	Director General, Dept of Environment	STEA
2	Mr. Somfong SYSOUVAN	Chief of Factory Environment Division, Industry Dept	Ministry of Industry and Handicraft
3	Mr. Phetsavang SOUNNALATH	Director of National Disaster Management Office	Ministry of Labour and Social welfare
4	ASSOC. Prof. Souphab KHOANGVICHIT	Director of Centre for Environment and Development Study, National University of Laos	Ministry of Education
5	Mr. Bounynalith SOUTHTHICHUCK	Chief of United Nations Division, Department of international Organisations.	Ministry of Foreign Affairs
6	Vilayvanh DILAPHANH	Technical Staff	Central Lao Women's Union
7	Phucknakhone RATTANA	Technical Staff	Ministry of CPTC
8	Dr. Tayphasavanh FENGTHONG	Deputy Chief, Environmental Health Division, Hygiene Dept.	Ministry of Health
9	Mr. Linthong DOUANGPHACHAN	Deputy Chief of Division, Dept of Forestry	Ministry of Agriculture and Forestry

ANNEX 2: NCSA Project Management Team / Project Coordination Committee

Name	Position	Organisation
Mr. Xayaveth VISAY	NCSA National Programmeme Director 2004-2007	Deputy Director, Dept. of Environment, STEA
Ms. Bounkham VIRACHITH	NCSA Programme Manager 2004-2007	Director, Policy and Planning Division, STEA
Dr Viengsavanh DOUANGSAVANH	NCSA National Programmeme Director 2007-2008	Director General, Environment Department, WREA
Mr Khampadith KHAMMOUNHEUANG	NCSA Programme Manager 2007-2008	Deputy Director General, Environment Department, WREA

ANNEX 3 The Three NCSA Technical Working Groups

Name		Position & Office	Organisation
UNCBD Working group			
1	Mr. Bouaphanh PHANTHAVONG	Deputy Head, DFRC	Ministry of Agriculture and Forestry
2	Mr. Lamphoukeo KETAVONG	Technical, Environment Research Institute	STEA
3	Mr. Khamvieng XAYYABUD	Head Deputy of Watershed Management and Land use Planning Dept, Faculty of Forestry	Ministry of Education, National University of Laos
4	Mr. Somphan CHANPHENGXAY	Chief of Planning and Investment Division, Fisheries and Livestock Dept	Ministry of Agriculture and Forestry
5	Mr. Khamhou TOUNALOM	Technical Staff, Industry Dept	Ministry of Industry and Handicraft
6	Nilun SOMVICHIT	Agriculture Dept.	Ministry of Agriculture and Forestry
7	Mr. Somsanouk PHOMMAKHOTH	Chief of International Environment Division, Dept of Environment	STEA
UNCCD Working Group			
1	Mr. Phonesavanh XAYSOMPHANG	Technical Staff, National Disaster Management Office	Ministry of Labour and Social welfare
2	Mr. Oudong KEOMIPHET	Technical Staff, National Agriculture and Forestry Research Institute	Ministry of Agriculture and Forestry
3	Boangeun OUDOMECHIT	Meteorological Dept	Ministry of Agriculture and Forestry
4	Mr. Somnuk CHANTHASETH	Deputy chief of Technical Division, Irrigation	Ministry of Agriculture and Forestry

5	Bounthieng SEMGANYVONG	Chief of Unit, Soil Research Centre	Ministry of Agriculture and Forestry
6	Mr. Khongsaysy PHOMMAXAY	Chief of Environmental Dissemination and Promotion Division, Dept of Environment	STEA
UNFCCC Working Group			
1	Syamphone SENGCHANDALA	Deputy chief of Division, Environment Impact Assessment Division, Dept of Environment	STEA
2	Mr. Somfong SOULIVAN	Chief of Division Environment Factory, Industry Dept	Ministry of Industry and Handicraft
3	Mr. Khammoun BOUAPHAN	Chief of Secretarial Office for National Transport	Ministry of CPTC
4	Mr. Bountanh PHILACHANH	Technical Staff, Dept of Forestry	Ministry of Agriculture and Forestry
5	Mr. Khamvieng XAYABOUTH	Director Deputy of Watershed Management and Land use Planning Dept, Faculty of Forestry	Ministry of Education, National University of Laos
6	Mr. Seumkham THOUMMAVONGSA	Deputy Chief of Division, Dept of Electricity	Ministry of Industry and Handicraft
7	Mr. Chanthachit AMPHAYCHIT	Technical Staff	Lao National Mekong Committee Secretarial
8	Mr. Saikham VORRADET	Technical Staff	Committee for Planning and Investment

ANNEX 4 Lao NCSA Meetings and Workshop Convened between 21st October 2004 and 4th March 2008

Date	Meeting Purpose	No. of Participants	Location	Page no.
1 21 st Oct 2004	Project Steering Committee & Working Groups	25	STEA, Vientiane	69
2 25 th Oct 2004	Project Steering Committee	15	STEA, Vientiane	
3 24 th Nov 2004	Initial Stakeholder Consultation Meeting	48	Thalat, Vientiane Province	
4 24-27 th Jan 2005	Consultation Meeting for Planning Methods	51	Thalat, Vientiane Province	
5 14 th Feb 2005	Preparatory Meeting for Consultation Workshops	14	STEA, Vientiane	
6 23 rd -25 th Feb 2005	Provincial Stakeholder Consultation Meeting	46	Thakhaek, Khammouan Province	
7 11 th Mar 2005	Project Steering Committee and Working Group Meeting	29	STEA, Vientiane	
8 18 th Mar 2005	Project Steering Committee	16	STEA, Vientiane	
9 5 th Apr 2005	Project Steering Committee and Working Group Meeting - Initial Consultation on Convention Articles	26	STEA, Vientiane	
10 20-22 nd Apr 2005	Meeting for Selection of Convention Articles	40	Thalat, Vientiane Province	
11 2 nd June 2005	Preparatory Meeting for NCSA Workshop	15	STEA, Vientiane	
12 7 th -10 th June 2005	Provincial Stakeholder Consultation Meeting to Assess Capacity Needs	43	Vientiane Province	
13 14 th -17 th June 2005	Working Group Meeting to Prioritise Capacity Needs	51	Pakse, Champassak Province	
14 10 th Aug 2005	Working Group Meeting to Prioritise Capacity Needs	9	STEA, Vientiane	
15 11 th Aug 2005	Working Group Meeting to Prioritise Capacity Needs for UNCCD	11	STEA, Vientiane	
16 12 th Aug 2005	Working Group Meeting to Prioritise Capacity Needs for UNFCCC	10	STEA, Vientiane	
17 15 th Aug 2005	Working Group Meeting to Identify Cross-Cutting Issues	17	STEA, Vientiane	
18 23 rd -25 th Aug 2005	Centre and Provincial Stakeholder Workshop to Prioritise Capacity Needs	37	Ban Kern, Vientiane Province	
19 6 th -8 th Sept 2005	Meeting	61	Savannakhet	
20 28 th Dec 2005	Working Group Meeting to Approve Project Report	23	STEA, Vientiane	
21 30 th Jan 2006	Provincial Stakeholder Consultation	17	Pakse, Champassak Province	
22 2 nd Feb 2006	Preparatory Capacity Building Meeting	29	STEA, Vientiane	
23 2 nd May 2006	Meeting	29		
24 4 th Mar 2008	Monthly Consultation Meeting NCSA	8	WREA, Vientiane	

ANNEX 5 Offices and Agencies Engaged in the NCSA Process

Agency	
1	Water Resource and Environment Administration (formerly Science Technology and Environment Agency), Vientiane
2	Environment Research Institute (WREA)
3	Multilateral Environment Agreement Project, WREA/UNDP
4	Department of Public Health, Ministry of Public Health, Vientiane
5	Industry Department, Ministry of Industry and Trade, Vientiane
6	National Agriculture Research Institute, Ministry of Agriculture and Forestry, Vientiane
7	Agriculture Department, Ministry of Agriculture and Forestry, Vientiane
8	Department of Irrigation, Ministry of Agriculture and Forestry, Vientiane
9	Livestock Department, Ministry of Agriculture and Forestry, Vientiane
10	Wildlife Protected Department, Ministry of Agriculture and Forestry, Vientiane
11	Agrarian Zoning and Survey, Ministry of Agriculture and Forestry, Vientiane
12	Ministry of Civil Works and Transport, Vientiane
13	Transportation Department, Ministry of Civil Works and Transport (formerly Communication, Transport, Post and Construction), Vientiane
14	Housing and Urban Planning Department, Ministry of Civil Works and Transport, Vientiane
15	Forestry Committee, National University of Laos, Vientiane
16	Hygiene and Health Department, Ministry of Public Health, Vientiane
17	National Disaster Management Office, Ministry of Labour and Social Welfare, Vientiane
18	Lao National Youth Union, Vientiane
19	Ministry of Law, Vientiane
20	Lao National Mekong River Commission
21	Lao Women's Union, Vientiane
22	Department of Electricity, Ministry of Energy and Mines (formerly Industry and Handicrafts), Vientiane
23	Ministry of Education, Vientiane
24	Committee for Planning and Coordination (CPC), Vientiane
25	International Personnel Department, Ministry of Foreign Affairs, Vientiane
26	Committee for Planning and Investment (CPI), Vientiane
27	Research Department, Prime Minister's Office
28	Economic Research Institute, Ministry of Planning and Investment (formerly Planning and Cooperation)
29	Disaster Management Office, Ministry of Social Welfare, Vientiane
30	United National Development Programme
31	Agriculture and Forestry Division, Attapeur Province
32	Water Resource and Environment Office, Borikhamxay Province
33	Agriculture and Forestry Division, Borikhamxay Province
34	Agriculture and Forestry Division, Borkeo Province

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| 35 | Water Resource and Environment Office, Bokeo Province |
| 36 | Agriculture and Forestry Division, Champasack Province |
| 37 | Sepian Protected Area, Champassak Province |
| 38 | Forestry Division, Champassak Province |
| 39 | Water Resource and Environment of Cabinet, Khammoune Province |
| 40 | Water Resource and Environment Office, Luang Prabang Province |
| 41 | Agriculture and Forestry Division, Sekong Province |
| 42 | Water Resource and Environment Office, Sekong Province |
| 43 | Water Resource and Environment of Cabinet, Salavan Province |
| 44 | Water Resource and Environment Office, Savannakhet Province |
| 45 | Agriculture and Forestry Division, Savannakhet Province |
| 46 | Lao Women's Union, Savahnakhet Province |
| 47 | Education Division, Savahnakhet Province |
| 48 | Transport, Post and Construction Department, Savhannakhet Province |
| 49 | Cabinet Office, Savahnnakhet Province |
| 50 | Television Savahnaket Province |
| 51 | Industry Department, Savahhnakhet Province |
| 52 | Agriculture Research Division, Savahnnakhet Province |
| 53 | Agriculture and Forestry Division, Vientiane Municipality |
| 54 | Water Resource and Environment Office, Vientiane Municipality |
| 55 | Water Resource and Environment Office, Vientiane Province |

