



**United Nations Development Programme  
Lao PDR  
Project Document**

**Project Title:** PIMS 2948 CC EA: Lao PDR Second National Communication on Climate Change (SNC)

**UNDAF Outcome(s):** By 2011, the livelihoods of poor, vulnerable and food insecure populations are enhanced through sustainable development (within the MDG framework)

**Expected CP Outcome(s):** Improved and equitable access to land, markets and social and economic services, environmentally sustainable utilization of natural resources  
*(Those linked to the project and extracted from the CPAP)*

**Expected Output(s):** Enhanced management capacity of the Government in meeting its international environmental obligations through strengthened implementation of multilateral agreements and related national policies and legislation  
*(Those that will result from the project and extracted from the CPAP)*

**Implementing Partner:** Water Resources and Environment Administration (WREA)

**Responsible Parties:** UNDP Lao PDR

**Brief Description**

This proposed project will enable the Lao People's Democratic Republic (Lao PDR) to prepare its Second National Communication (SNC) to the Conference of the Parties (CoP) of the United Nations Framework Convention on Climate Change (UNFCCC). The activities of the SNC formulation project are a continuation and an update of the work undertaken by the Lao PDR in preparing its First National Communication during 1997-2000. In addition, gender concerns and perspectives will be taken into account throughout the project cycle. The project has four main outputs: (a) an inventory of greenhouse gases; (b) programmes containing measures to facilitate adequate adaptation to, and mitigation of, climate change; (c) programmes and plans that are considered relevant for the achievement of the objectives of the UNFCCC and (d) preparation of the SNC of Lao PDR. Besides the preparation of the SNC, the project will further increase the general awareness of climate change issues and build national capacity in the Lao PDR. The project will also facilitate the integration of climate change and gender concerns into the national development policies and plans by strengthening cooperation between all relevant stakeholders.

<b>Programme Period:</b>	2008-2011	<b>Total Project Budget:</b>	898,130
<b>Key Result Area (Strategic Plan):</b>	Energy and environment for sustainable development	<b>Total resources required:</b>	_____
<b>Atlas Award ID:</b>	00042082	<b>Total allocated resources:</b>	_____
<b>Start date:</b>	01 November 2008	• Regular UNDP TRAC	336,500
<b>End Date:</b>	31 October 2011	• Other:	_____
<b>PAC Meeting Date:</b>	30 August 2007	○ GEF	405,000
<b>Management Arrangements:</b>	NEX	○ Donor	_____
		○ Donor	_____
		<b>Unfunded budget:</b>	_____
		<b>In-kind Government Contributions</b>	156,630

Agreed by Ms. Khempeng Pholsena, Head, WREA:

Agreed by Ms. Sonam Yangchen-Rana, Resident Representative, UNDP:



14/11/2008

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## Acronyms

ADPC	Asian Disaster Preparedness Centre
APR	Annual Project Report
AWP	Annual Work Plan
CCA	Common Country Assessment
CCEAP	Climate Change Enabling Activity Project
CDM	Clean Development Mechanism
CoP	Conference of the Parties
CP	Country Programme
DNA	Designated National Authority
DoS	Department of Statistics
ETO	Energy Technology Optimisation
FACE	Funding Authorization and Certificate of Expenditure
FAO	UN Food and Agriculture Organization
FNC	First National Communication
FR	Financial Report
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gases
Gg	Gigagrams
GoL	Government of Lao PDR
GPG	Good Practice Guidance
HACT	Harmonised Approach to Cash Transfer
HDI	UNDP's Global Human Development Index
HFCs	Hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
IR	Inception Report
IUCN	World Conservation Union
JICA	Japan International Cooperation Agency
Lao PDR	Lao People's Democratic Republic
LDC	Least developed countries
LEAP	Long-range Energy Alternatives Planning System
LNMC	Lao National Mekong Committee
LPAC	Local Project Appraisal Committee
LUCF	Land Use Change and Forestry
LULUCF	Land Use, Land Use Change and Forestry
LWU	Lao Women Union
MAGICC	Model for Assessment of Greenhouse Gas Induced Climate Change
MAF	Ministry of Agriculture and Forestry
MAGICC	Model for the Assessment of Greenhouse Gas Induced Climate Change
MARKA-MACRO	Market Allocation Macro-Economic Model
MPWT	Ministry of Public Works and Transports
MDGs	Millennium Development Goals
MEM	Ministry of Energy and Mines
MIC	Ministry of Industry and Commerce
MOFA	Ministry of Foreign Affairs
MPH	Ministry of Public Health
MW	Megawatts
NAPA	National Adaptation Programme of Action to Climate Change
NBSAP	National Biodiversity Strategy and Action Plan
NCCC	National Communication on Climate Change
NCSA	National Capacity Needs Self-Assessment
NEX	National Execution
NGO	Non-Governmental Organisation
NGPES	National Growth and Poverty Eradication Strategy
NSCC	National Steering Committee on Climate Change
NSED	National Socio-Economic Development Plan
NMVOCs	Non-methane volatile organic compounds
PFCs	Perfluorocarbons
PM	Project Manager
PRECIS	Providing Regional Climates for Impacts Studies
PRSP	Poverty Reduction Strategy Paper
QPR	Quarterly Progress Report

SBA	Standard Basic Assistance Agreement
SCENGEN	A global and regional SCENario GENERator
SNC	Second National Communication
SRF	Strategic Results Framework
SRESA2	Special Report on Emissions Scenarios as Reference
SRESB1	Special Report on Emissions Scenarios as Policy
STAIR	Services, Transport, Agriculture, Industry and Residential energy model
UNCBD	United Nations Convention on Biological Diversity
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDP CO	UNDP Country Office
UNFCCC	United Nations Framework Convention on Climate Change
UNCCD	United Nations Convention to Combat Desertification
V&A	Vulnerability and adaptation
WREA	Water Resources and Environment Administration

## 1. *Situation Analysis*

The Lao People's Democratic Republic is a landlocked country located in mainland Southeast Asia, between latitudes 14° and 22° N and longitudes 100° and 107° E. Covering an area of 236,800 km<sup>2</sup>, the country stretches more than 1,700 km from its northern border with China to its southern border with Cambodia. Two-thirds of the country is covered with mountains ranging from a few hundred metres to 2,820 m. The mountainous topography makes for difficult communication, but combined with a rich network of rivers, provides significant hydropower potential. The Mekong River stretches some 1,856 km throughout the Lao PDR. The tropical climate is dominated by the monsoon and a wet season lasting from April to October. Average temperatures range from a minimum 25°C to a maximum 38°C. The northern part of the country is prone to drought, while the central and southern parts suffer from floods.

The Lao PDR belongs to the group of least developed countries, with a GDP per capita of US \$498 in 2005. Although the poverty rate decreased from 46% of the total population in 1992-93, it still averaged some 34% in 2004 (DOS, 2006) for the country as a whole. Poverty rates in the northern regions are in excess of 50% of the population, while they represent only 12% of the residents of Vientiane. In the poorest northern province, only a quarter of the population is above the national poverty line, which is officially defined as "the lack of ability to fulfil basic human needs, such as: not having enough food, lack of adequate clothing, not capable of meeting educational expenses for one's self and other family members, and lack of access to transport routes." The Department of Statistics (DOS) has estimated that 76% of the total villages are poor. Other social and economic indicators compare unfavourably with neighbouring countries. Adult literacy rates averaged 73% in 2005. Access to clean water is at 67% for urban dwellers compared to 27% and 13% for rural dwellers with and without road access respectively. While the health indicators of the Lao PDR have improved over the past decade, they similarly lag behind regional standards: life expectancy remains low (63 years for female and 59 years for male) and, maternity and infant mortality rates remain high (405 per 100,000 births and 70 deaths per 1000 live infants respectively) (Census of Population and Housing, 2006).

The National Growth and Poverty Eradication Strategy (NGPES) recognises that dependence on dwindling natural resources is a primary coping strategy for the poor, thus making the population highly vulnerable to resource depletion and environmental degradation. In addition, natural resource based livelihoods are likely to be the most vulnerable to changing climatic conditions, especially women and children living in rural communities. The government of the Lao PDR also considers human resource development as a key catalyst towards poverty eradication. Increased technical and institutional capacity is a requisite enabling condition of economic growth.

The country is endowed with significant energy resources. Energy use within the country is still dominated by the use of fuelwood which accounts for about 90% of total energy requirements. Hydropower is the most abundant and cost-effective energy source with a theoretical hydroelectric potential of about 26,500 MW excluding mainstream Mekong. Of this, about 18,000 MW is technically exploitable, with 12,500 MW found in the major Mekong sub-basins and the remainder in minor Mekong or non-Mekong basins. In addition, important lignite and coal deposits have also been discovered, and exploration for oil and gas is in progress. Less than 2% of the country's hydropower potential has been developed over the last 30 years, but under present GoL policy, the rate of development will accelerate to supply electricity to the rapidly growing economies of the region. Agreements for future hydropower exports are in place with Thailand, Vietnam and Cambodia. In addition to international supply commitments, domestic energy consumption is growing at 8% to 10% annually. So far, a total of 9 hydropower projects are currently operating in the country with the total capacity of 624.10 MW, and 4 others are under construction (Nam Theun 2 - 1088 MW, Nam Ngum 2 - 615 MW, Xekaman 3 - 250 MW and Xexet 2 - 76 MW). Export of electricity generated from hydropower plants was contributing about 20.77% to the country's GDP in 2005 (Lao National Committee for Energy, 2006).

Lao PDR had some of the densest forest in the world. In 1940, forests covered approximately 70% of the country's total land area or 17 million ha. Since then the forest cover had declined being now around 41%. In June 2006, the government announced some new policies and regulations aiming to restore nation's forest back to 70% of the country by the year 2020 (Ministry of Agriculture and Forestry in the Vientiane Times, 2006).

In terms of agriculture, the country has total arable land of 5.9 million ha but only 1,048,000 ha are agricultural land. Rice farming remains the single most important economic activity employing more than 80% of the total labour force. It is revealed that approximately 2.6 million tonnes of rice are

produced per year. However, the difference in production capacity between lowland and mountainous areas is a major concern. Agriculture contributes to more than 50% of GDP. Rice farming is the single most important agricultural economic activity and accounts for 20% of GDP. Some 500,000 households rely on subsistence agriculture (UNDAF 2006 -2011, 2006).

The Lao imports and exports have increased dramatically over the last few years and it is expected to continue accelerating over the next decade. In 2004 -2005, the main imports include fuel and gas (21.50%), raw materials for industrial production (21.20%) and raw materials for garment production (11%). The export growth has been predominantly driven by electricity, garments, mining, timber and wood products. Mining, in particular, appears to grow very rapidly and is expected to contribute up to 10% of the country's GDP in 2006 which is significantly increased from a GDP contribution of only 2.4% in 2004. Gold, gypsum, tin and barite are the major mining products exported so far (Ministry of Industry and Commerce, 2006). Overall, the growth rate for industry sector is higher than other sector at an average of 11% per annum (Committee for Planning and Investment, 2006).

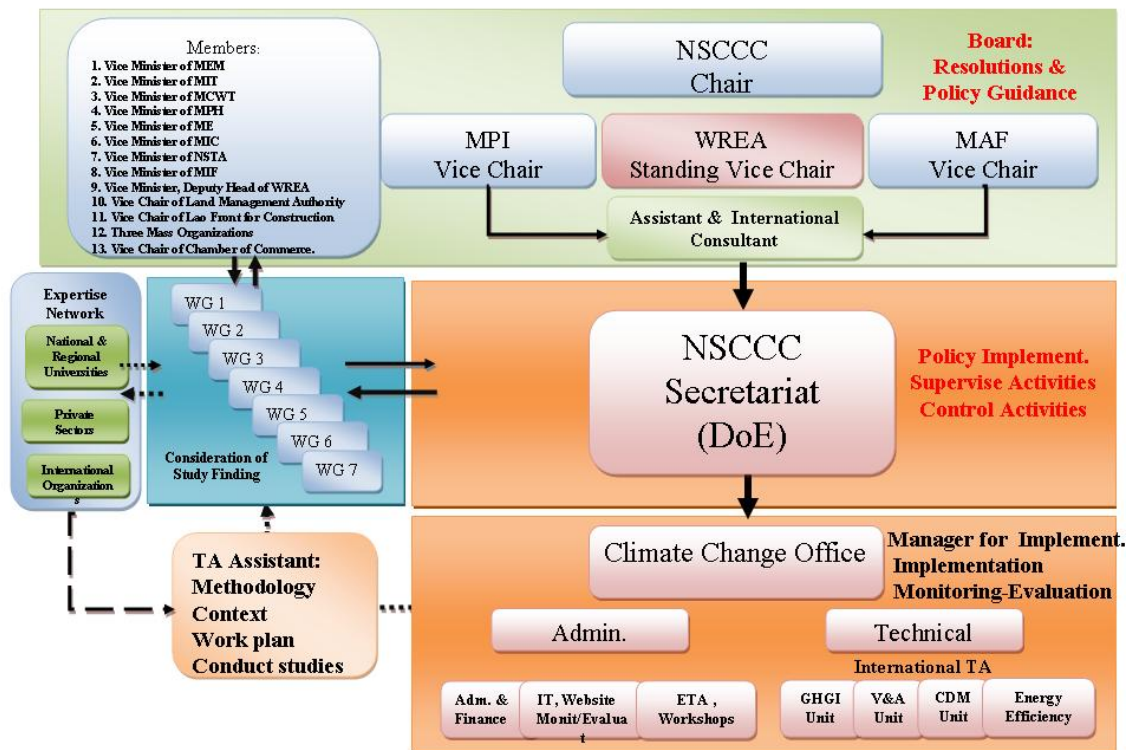
The data on wastes generated are poorly recorded across the country. However, in Vientiane Capital city alone (700,000 inhabitants), it is estimated that approximately 260 tonnes of garbage are produced daily and only 50% of which is collected for disposal at the city's dumpsite (Vientiane Times, 2006).

The United Nations Common Country Assessment (CCA) of the Lao PDR has identified the strengthening of human resources and the sustainable use of natural resources as key issues. The United Nations Development Assistance Framework (UNDAF) of the Lao PDR 2007 -2011 is organised around three core pillars: (1) poverty and food security, (2) the social sector, and (3) governance. The UNDAF recognises that the Lao PDR is highly dependent on natural resources for economic and social development. Environmental degradation and natural disasters, in particular, floods and droughts, pose threats especially to agricultural livelihoods and hinder the country's sustainable development.

On 8 of May 2008, the Prime Minister established the National Steering Committee on Climate Change (NSCCC) and defined its mandates and responsibilities. One of the outcomes of the NSCCC is the development of a National Strategy on Climate Change that assesses the impacts of climate change and outlines priority actions that need to be taken (see following proposed institutional arrangement for NSCCC and climate change activities in Lao PDR). This strategy is expected to be completed in September 2009, and its development will be undertaken in three stages:

1. Stage 1 (August 2008 – March 2009): Sectoral working groups will assess impacts of climate change and identify priority actions with the participation of all stakeholders, including international organizations.
2. Stage 2 (December 2008-June 2009): analysis of the implications of climate change on economic growth and the poverty reduction goals of the country will be undertaken. A financing framework will also be articulated to identify funding priorities and access new carbon financing instruments. Stage 1 and Stage 2 will conclude with the draft strategy and action plan that will be submitted for the consideration of the NSCCC.
3. Stage 3 (March 2009-October 2009): consultative process leading to the adoption of the National Climate Change Strategy and Action Plan.

The development and implementation of the National Climate Change Strategy and Action Plan is a key national priority for Lao PDR.



The Lao PDR acceded to the United Nations Framework Convention on Climate Change (UNFCCC) on 4 January 1995. As a party to the UNFCCC, the Lao PDR is required to periodically report to the Conference of Parties (COP) on greenhouse gas inventories, national measures to mitigate and facilitate adequate adaptation to climate change, and any other information relevant to the achievement of the objectives of the Climate Change Convention. Lao PDR is also a signatory of the Kyoto Protocol, to which it acceded on 6 January 2003, and may thus host Clean Development Mechanism project activities to mitigate greenhouse gases.

With funding from the Global Environment Facility (GEF) and facilitation by the United Nations Development Programme (UNDP), the Lao PDR completed its First National Communication (FNC) in November 2000. Similarly, with funding from GEF and facilitation by UNDP, The Lao PDR is in the process of preparing its National Adaptation Programme of Action to Climate Change (NAPA), which presents priority activities to adapt to the adverse effects of climate change.

## 2. Project Objectives

### Project Development Objective

The project will strengthen the technical and institutional capacity to assist the Lao People's Democratic Republic in mainstreaming climate change concerns into sectoral and national development priorities, including the Sixth National Socio-Economic Development Plan.

### Project Immediate Objective

The project will enable the Lao People's Democratic Republic to prepare and submit its second national communication to the UNFCCC and meet its Convention obligations.

## 3. Overall Project Output

The overall project output is the Second National Communication Document that approved by the Government for submission to the UNFCCC.

## **4. Strategy**

The project will assist the Lao People's Democratic Republic in preparing its Second National Communication (SNC) following the guidelines adopted by the Conference of Parties of the United Nations Framework Convention on Climate Change. As a Non Annex-I party, the Lao PDR is committed to meeting its reporting obligations under the UNFCCC. The proposed activities of the SNC project build upon the work undertaken under the CCEAP Phase I & II, which assisted the Lao PDR in preparing its First National Communication (FNC). The project will also provide an International Technical Advisor to the Government who will support both the development of the SNC and the preparation and implementation of the National Climate Change Strategy and Action Plan for Lao PDR.

The project will help strengthen the country's Climate Change Office and associated Technical Working Groups, and therefore technical and institutional capacity to both, (a) implement the UNFCCC by mainstreaming and prioritising climate change related issues, and (b) develop and support the implementation of the National Climate Change Strategy and Action Plan for Lao PDR. It will also assist in the incorporation of such issues in the general planning and development strategy formulation processes in the country identified by the Government of the Lao PDR and presented in the National Socio-Economic Development Plan (NSEDP), the government's key document for development integrating National Growth and Poverty Eradication Strategy (localised PRSP) and the Millennium Development Goals (MDGs). Other key strategies include National Biodiversity Strategy to 2020 and Action Plan to 2010 (NBSAP) and Forestry Strategy to 2020. In addition, the project is directly linked to UNDAF Goal 1: "By 2011, the livelihoods of the poor, vulnerable and food insecure populations are enhanced through sustainable development". Apart from these, the project is in line with UNDP's Strategic Plan, 2008 – 2011, and will also support two MDG goals namely Goal 1: Eradicate extreme poverty and hunger, and Goal 7: Ensuring environmental sustainability.

As in many other developing countries, gender issues related to climate change in Lao PDR have not been sufficiently studied and addressed until very recently. In this regard, the SNC project and the National Strategy will take into consideration gender issues. The project will investigate whether women and men are affected differently by climate change and formulate relevant recommendations for linking gender issues with climate change – related projects/programmes.

The project will focus on linkages between climate change and the need for a balance between economic growth, socio-cultural development and environmental protection. The SNC project will focus on the sectors with the highest GHG emissions (energy, land use change and forestry (LUCF), agriculture, industrial processes, and waste), as well as the sectors identified in the NAPA as most vulnerable to climate change (agriculture, forestry, water and water resources, and public health). The project will seek to promote the integration of climate change concerns into national development policies and plans. The project will assist the Government of Lao PDR in implementing its National Growth and Poverty Eradication Strategy, including the goal of exiting the group of Least Developed Countries (LDC) by 2020. The government of Lao PDR recognises the need for efficient utilisation of human and natural resources to sustain economic growth.

The project will be implemented by the Government of Lao PDR (GoL) to promote capacity building, self-reliance and sustainability, ownership and internalisation of external inputs, and relevance of impacts. Experience from the Lao PDR's FNC, the NAPA and the National Capacity Self-Assessment (NCSA) will be valuable to address the potential gaps and constraints in the formulation of the SNC. Local capacity built under CCEAP I & II, NAPA, and NCSA will be called upon to assist in the successful formulation of the SNC. Regional and international expertise will also be required to strengthen the institutional and technical capacity of stakeholders through on-the-task and hands-on training, seminars and workshops, as well as international cooperation.



## **5. Project activities**

### **5.1 Output 1. National circumstances**

With the exception of the basic geophysical features, the national circumstances of the Lao PDR have changed since the completion of the FNC in the year 2000. Development priorities, objectives and circumstances need to be updated to provide a more accurate background on the basis of which climate change and its impacts may be addressed.

The SNC will carry out a review of the statistical information, policies and strategies available for the sectors most vulnerable to climate change (agriculture, forest, water and water resources, and public health), as well as the sectors that are the highest emitters of GHGs (energy, land use change and forestry, agriculture, industrial processes, agriculture and waste). Gender-specific effects of climate change are to be analysed. Demographic surveys, poverty assessments and sectoral studies conducted since 2000 will provide new input to the section discussing national circumstances. Relevant plans, policies and studies include: the National Growth and Poverty Eradication Strategy, the Medium-Term Public Expenditure Framework, the Lao Expenditures and Consumption Surveys, the Participatory Poverty Assessments, the Study on Rural Electrification Project by Renewable Energy, the Master Plan Study on Small Hydro in Northern Lao PDR, Village Energy and Electricity Best Practise, the Master Plan Study on Integrated Agricultural Development, and the National Environment Strategy and Environmental Action Plan.

#### **Activities:**

1. Collect and analyse all national and sectoral strategies, plans and studies relevant to the formulation of the SNC, including national development and poverty eradication plans and strategies;
2. Update data and information on the national circumstances, including geographical characteristics (climate, forests, land use, other environmental conditions, etc.), population (growth rates, distribution, density etc.), economy (energy, transport, industry, mining, tourism, agriculture, fisheries, waste, services etc.), education (including scientific and technical research);
3. Collect and analyse information on specific needs and concerns arising from climate change impacts and/or the impact of the implementation of response measures ;
4. Evaluate existing institutional arrangements and established an agreed set -up for continuous preparation of national communications to the UNFCCC;
5. Prepare draft National Circumstances chapter of the SNC based on outputs of the above - mentioned activities;
6. Conduct consultation of stakeholders on draft National Circumstances chapter and incorporate their comments and feedback in finalising it.

#### **Expected results :**

1. Description of national and regional development priorities, objectives and circumstances, on the basis of which the Lao PDR will address climate change and its adverse impacts for both women and men;
2. Updated data and information on features of geography, climate and economy which may affect the Lao PDR's ability to mitigate and adapt to climate change;
3. Information regarding specific needs and concerns arising from the adverse impacts of climate change and the implementation of response measures;
4. National Circumstances chapter prepared ;
5. Established institutional arrangement for the continuous preparation of national communications to the UNFCCC.

### **Output 2. Greenhouse gas inventory**

The FNC reported an inventory of GHG emissions by sources and removals by sinks prepared for the base year 1990. The Lao PDR's national greenhouse gas inventory covered four sectors: (1) energy, (2) land use change and forestry, (3) agriculture and (4) waste. A three -year average of activity data for the sectors of agriculture, and land use change and forestry, was calculated (1988, 1989, 1990), whereas data for the calendar year 1990 was used for the sectors of energy and waste. Industrial processes were not considered as the existing plants, such as cement plants and pulp and paper mill had not been built in 1990. Lack of data prevented the estimation of emissions for solvent and other

product use. The greenhouse gases covered in the inventory were carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), carbon monoxide (CO) and nitrous oxides (NO<sub>x</sub>). The inventory was conducted using activity data collected by government agencies, and when available, reports published by international organisations operating in the Lao PDR.

As in many least developed member countries, there was a total absence of national emission factors and little capacity to develop country specific data, which lead to the use of IPCC default values in the inventory conducted by the FNC. For the year 1990, it was estimated that the Lao PDR was a net carbon sink with a removal of 121,641 Gg of CO<sub>2</sub>-equivalent. Agriculture accounted for 81% of the country's methane emissions. Total national fossil fuel based emissions represented only 415 Gg of CO<sub>2</sub>-equivalent. No emission projections were conducted beyond the base year because of constraints related to data availability and uncertainties with regards to future development scenarios.

Since the first national greenhouse gas inventory was conducted in 1990, there have been some relative improvements in the collection and dissemination of national statistical data. Overall, for the base year of 2000, activity data is expected to be more consistent and readily available than for the year 1990.

The estimation and reporting of the national GHG inventory will be conducted in accordance with the revised 1996 IPCC guidelines, following the IPCC Good Practice Guidance (GPG) and Uncertainty Management in National GHG Inventories, and the GPG on Land Use, Land-Use Change and Forestry.

The inventory will follow the main stages as recommended in the Workbook of the revised 1996 IPCC guidelines: (1) planning the inventory (review of reporting instructions, identification of priority sources/sinks and priority GHGs), (2) using IPCC default methods and data, (3) using the IPCC workbook and worksheets, (4) providing documentation, (5) reporting finer level of details when available. It will be conducted using Tier 1 methodology, which represents the minimum or default methodology, and is the more accurate for emission estimates. Tiers 2 and 3 methodologies will only be used in specific cases where more detailed data and statistics are available. There is no existing national methodology for emission estimates and greenhouse gas inventory. IPCC default emission factors and regional factors will be used, as there are no country-specific emission factors and activity data for the Lao PDR.

In addition, the inventory will be conducted for the following five sectors: (1) energy (food combustion activities, biomass emissions), (2) industry (cement, food and beverages, pulp and paper), (3) agriculture (domestic livestock, rice cultivation, grassland burning, agricultural residue burning, agricultural soils), (4) waste (solid waste, domestic/commercial waste water, industrial wastewater, human sewage) and (5) land use change and forestry (change in forest/wood biomass, forest/land use change). In contrast with the FNC, the SNC will cover industrial processes as this sector has experienced significant development since 1990. The inventory will estimate in units of mass, by sources and removals by sinks, anthropogenic emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). When appropriate and conditional on data availability, information will be provided on emissions by sources for carbon monoxide (CO) and nitrogen oxides (NO<sub>x</sub>).

The project will establish a multidisciplinary working group with technical staff from relevant government agencies. Participation of women in the working groups' activities will be encouraged. This working group will be responsible for conducting the inventory and has been divided into sectoral inventory teams. The main members of the sectoral inventory teams will comprise the following and other agencies as relevant: (1) energy (Water Resources and Environment Administration; Ministry of Public Works and Transport; Ministry of Energy and Mines; Ministry of Agriculture and Forestry; Ministry of Industry and Commerce, National Statistics Centre, Lao Women Union etc.), (2) land use change and forestry (Water Resources and Environment Administration; Ministry of Agriculture and Forestry; Ministry of Public Works and Transport; National Statistics Centre, Lao Women Union etc.), (3) agriculture (Water Resources and Environment Administration; Ministry of Agriculture and Forestry; National Statistics Centre, Lao Women Union etc.), (4) industrial processes (Water Resources and Environment Administration; Ministry of Industry and Commerce; Ministry of Energy and Mines; National Statistics Centre, Lao Women Union etc.), (5) waste (Water Resources and Environment Administration; Ministry of Public Works and Transport; Ministry of Industry and Commerce; Ministry of Public Health, Lao Women Union etc.). These institutional arrangements will provide the basis for the preparation of national communications under the UNFCCC on a continuous basis.

**Activities:**

1. Establish sectoral working groups in energy, industry, agriculture, waste, and land use change and forestry (LUCF);
2. Train members of the technical working group in IPCC methodologies for conducting national GHG inventories. Extensive and comprehensive technical training and support will be required as few members of the working group have prior experience conducting a national GHG inventory. Essential supporting materials and IPCC references will be translated into the Lao language, Gender sensitivity and balance will be emphasized as a crucial aspects of the project;
3. Review the 1990 GHG inventory, taking into consideration data gaps and areas needing improvement identified in the stock-taking exercise;
4. Review reporting instructions for GHG inventory;
5. Identify and analyse key source categories and priority GHGs;
6. Collect activity data and statistics from national sources to fill inventory data gaps;
7. Undertake national GHG inventory for the year 2000 and estimate emission trends to the year 2020;
8. Conduct an uncertainty assessment with regards to emission factors and activity data, as well as the reliability of existing statistics;
9. Explore opportunities with other stakeholders for strengthening data management systems within and outside the government to increase accuracy with regards to the preparation of future national GHG inventories on a continuous basis;
10. Explore cost-effective programmes to develop country-specific emission factors for improvements to future national GHG inventory exercises.
11. Prepare the draft technical report for the national GHG inventory and circulate to all relevant stakeholders. Local and national workshops will be organised to collect stakeholder comments and feedback and incorporated, where relevant in the finalisation of the National GHG Inventory;
12. Finalise the results of the national GHG inventory, as a separate technical output with detailed references and methodologies, for dissemination to all relevant stakeholders to further raise the awareness of the national GHG status and climate change issues.

**Expected results:**

1. A national inventory of anthropogenic emissions by sources and removals by sinks for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O, and conditional on data availability for CO and NO<sub>x</sub>;
2. Technical appendices to the inventory, discussing inventory procedures, methodologies and levels of uncertainty;
3. Increased national ability to conduct a GHG inventory, including strengthened human, technical and institutional capacity. Attention will be paid toward the achievement of a gender balanced policies;
4. Recommendations on the improvement and strengthening of national data collection and management for future GHG inventories.

**Output 3. Programmes containing measures to facilitate adequate adaptation to climate change**

The FNC did not take into consideration gender aspects and did not discuss steps taken or envisaged by the Lao PDR to adapt to climate change. The formulation of the FNC constituted the first exposure of policy makers and government staff to climate change issues in the Lao PDR. At the time, it was argued that broader dissemination to raise awareness and additional capacity building would be required for the country to develop a national perspective on adaptation to climate change.

The formulation of the NAPA constitutes the country's first attempt to assess the impacts of climate change on national development. The project started in 2005 and is expected to be completed by the end of the year 2008. The main objective of NAPA is to quickly develop priority activities for adaptation to climate change in the four sectors of (1) agriculture, (2) forest, (3) water and water resources, and (4) public health. Since the Lao PDR relies on agricultural, forest and water resources, the negative impacts of climate change would hinder the social and economic development of the country. The preliminary findings of the Lao PDR's NAPA are as follows: (1) the country's adaptive capability to climate change is limited, (2) there are gaps in information and knowledge with regards to vulnerability to climate change in the four priority sectors, (3) there is limited national technical capacity and experience in adaptation to climate change.

The priority activities for adaptation to climate change that have been initially identified include: adaptation to flood and drought in agriculture, stabilisation of slash and burn in forest areas, development of water resources and irrigation networks, and improvement of drinking water quality. These priority activities have been selected according to four indicators: (1) severity of potential climate change impacts, (2) poverty reduction, (3) synergies with other multilateral environmental agreements, and (4) economic efficiency.

Furthermore, a total of eight adaptation projects for implementation have been identified to date: (1) strengthen the capacity of the National Disaster Management Committees, (2) provide professional training aimed at increasing national capacity to improve the livelihood of farmers affected by natural disasters induced by climate change, (3) continue the implementation of the program of slash and burn eradication and permanent job provision, (4) build the capacity of village forestry volunteers in the areas of tree planting, caring, and management techniques, as well as the sustainable use of village forests, (5) raise awareness on water and water resources management, (6) map flood-prone areas, (7) improve and build management systems for sustainable use of drinking water and sanitation with the participation of communities in flood and drought affected areas, and (8) specialized training for engineers who design water and sanitation systems.

**Activities:**

The SNC will follow the guidelines of the UNFCCC to provide information on steps taken or envisaged towards formulating, implementing national programmes containing measures to facilitate adequate adaptation to climate change. The activities of this component will address the crucial gaps and needs concerning vulnerability and adaptation assessments, which are yet to be undertaken in the Lao PDR. Climate change vulnerability and adaptation assessments will be undertaken for the key sectors of agriculture, forest, water and water resources, and human health with a gender-focus analysis.

1. Train members of the technical working group, who were originally involved in the formulation of the NAPA, in vulnerability and adaptation assessment methodologies, including IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation. Extensive and comprehensive technical training will be required as few members of the working group have prior experience in vulnerability and adaptation assessment. Essential supporting materials and IPCC references will be translated into the Lao language; participation of women in working group activities will be strongly encouraged.
2. Generate appropriate (low-cost, user-friendly and flexible) climate change scenarios for the Lao PDR, using integrated models such as MAGICC (Model for the Assessment of Greenhouse-gas Induced Climate Change) in conjunction with SCENGEN (Scenario Generator) in vulnerability and adaptation;
3. Compile and analyse the available record on climate-related disasters;
4. Carry out more advanced sectoral vulnerability and adaptation assessments in agriculture, forest, watershed and water, and human health, in particular using global circulation models;
5. Identify long-term priority adaptation strategies and measures, resulting from improved understanding of climate change effects on the country;
6. Discuss uncertainties in emission and climate change scenarios in vulnerability and adaptation assessments;
7. Identify national needs for adaptation technologies and the transfer of these technologies from other countries;
8. Synthesise information and prepare a long term adaptation strategies and measures, based on gender analysis, NAPA and V&A assessment;
9. The draft technical report of the V&A assessment of the Lao PDR to climate change will be circulated to all relevant stakeholders. Local and national workshops will be organised to collect stakeholder comments and feedback;
10. The final findings of the V&A assessment will be disseminated to all relevant stakeholders to further raise the awareness of climate change gender issues.

**Expected results:**

1. Improved national technical and institutional capacity for vulnerability and adaptation assessments, building upon the capacity and experiences of the NAPA;
2. Increased awareness of all stakeholders to vulnerabilities to climate change and to the need for adaptation;
3. Increased stakeholder participation, especially women in vulnerability and adaptation assessments;
4. Analysis of records of climate-related disasters and future projections on climate change and associated impacts;

5. Improved understanding of the vulnerability of key sectors to climate change and of appropriate adaptation measures to climate change for these sectors;
6. Recommendations on long-term priority adaptation strategies, policies and measures;
7. A long-term adaptation strategy building on NAPA;
8. Taking gender concerns into consideration, improved integration and mainstreaming of adaptation to climate change in national development policies.

#### **Output 4. Programmes containing measures to mitigate climate change**

The FNC discussed greenhouse gas mitigation strategies for the Lao PDR in perspective with its national circumstances, and the capacity of its economy to undertake mitigation measures without negative impacts on growth. Mitigation options were identified based on the level of technology available in the country, national development goals and simplified cost-benefit analysis. The GHG mitigation strategy covered the following sectors: (1) energy, (2) transport, (3) agriculture, and (4) forestry. The FNC argued that the timeline and likelihood of the mitigation options being implemented was dependent on government priorities, costs constraints on the economy, technical capability, and donor funding.

Mitigation options for the energy sector were classified into three broad categories: energy conservation and efficiency, advanced or renewable energy sources, and structural changes in consumption. Although large hydropower appeared as a low cost electricity source, the cost of building a transmission and distribution network in an essentially mountainous country justifies decentralised options using micro-hydro or other renewable energy sources. In the transport sector, the FNC discussed the development and improvement of public transport to mitigate emissions associated with the growth of privately owned vehicles. In the forestry sector, conservation and sustainable management of forest areas, and afforestation were mitigation options already set as government priorities. The FNC argued for wider participation at the grassroots level to promote village forest management and curb shifting cultivation.

In addition, the FNC presented six project concepts for GHG mitigation: (1) reducing CO<sub>2</sub> emissions through the use of Compact Fluorescent Lights (CFL) in government and the commercial sector, (2) disseminating Improved Cook stoves (ICS) in rural areas (ICS are designed with modifications over traditional ones, with reduction in smoke emission and increased efficiency; the direct and indirect benefits of ICS include: increased thermal efficiency, the conservation of forests by cutback in firewood consumption, reduction in women's labour, reduction in indoor air pollution and hence smoke-released health disorders, prevention of fire hazards, reduction of cooking time), (3) promoting biogas use, (4) decentralised energy supply through Solar Home Systems (SHS) in rural households (SHS is a power generator that use a sun as an energy source, not causing pollution, easy in maintenance and installation and no electromagnetic radiation), (5) small-scale hydropower in combination with electric cook stoves, and (6) adoption of four-stroke engine for two wheelers. However, the FNC did not carry out any estimates of future emission trends or quantify the greenhouse gas reduction potential of the proposed mitigation options.

As a signatory of the Kyoto Protocol, the Lao PDR may host Clean Development Mechanism project activities that mitigate greenhouse gases and provide national sustainable development benefits. WREA acts as the Designated National Authority and is in the process of developing assessment and approval procedures with the support of international organisations. As a developing country, the Lao PDR is not required to meet any emission reduction targets. However, CDM project activities may result in both emission reductions and local social, environmental and economic benefits. Although a number of CDM projects are currently in the exploratory phase, the formulation of the SNC provides further opportunities for assessing the country's general potential for mitigating greenhouse gases, and specific potential for the development of CDM projects.

The SNC will provide information on steps taken or envisaged towards formulating and implementing national programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks. The Climate Change Convention commits Parties to develop programmes and measures that will result in the mitigation of human-induced climate change. Such measures may either reduce the increase in greenhouse emissions (abatement) or increase terrestrial storage of carbon (sequestration).

The SNC will conduct a mitigation assessment, which will generate information on the potential costs, benefits and impacts of implementing technologies and practises to mitigate climate change. This mitigation assessment will provide policy makers with the basis for the formulation and prioritisation of

mitigation programmes and will strengthen national sustainable development policies. The mitigation assessment will make use of either bottom-up models or top-down models and simulations for mitigation scenarios and projections. Since the FNC did not make use of any modelling software, extensive and comprehensive training of the staff involved in the mitigation assessment will be conducted so as to quickly build their technical skills. Modelling tools should be carefully chosen to meet national development circumstances, existing technical capacity and practical considerations for feasible mitigation alternatives. Models to be considered include LEAP (Long-range Energy Alternatives Planning system), ETO (Energy Technology Optimisation), STAIR (Services, Transport, Agriculture, Industry and Residential energy mode I), and MARKAL-MACRO (Market Allocation Macro-Economic Model). Data availability and information gaps will further determine the modelling tools used in the mitigation assessment.

**Activities:**

1. Train members of the technical working group, including members who originally worked on the FNC, in mitigation assessment/evaluation methodologies, including the use of mitigation analysis tools. Extensive and comprehensive training will be required as few members of the working group have prior experience in mitigation assessment. Essential supporting materials and IPCC references will be translated into the Lao language. Women will be encouraged to participate in the training programme;
2. Review previous work and studies on mitigation and renewable energy development, including the FNC, and strategies for power generation, and off-grid electrification using renewable energy;
3. Based on the results from the GHG inventory, develop a baseline scenario for GHG emission by sources and removal by sinks;
4. Conduct a climate change mitigation assessment using bottom-up or top-down modelling tools;
5. Identify and screen mitigation options for reduction potential and cost;
6. Identify national needs for mitigation technologies and the transfer of these technologies from other countries;
7. Assess potential for accessing funding through the Clean Development Mechanism and identify potential CDM projects;
8. Identify barriers to climate change mitigation and propose improvements to the national regulatory framework with regards to barriers to climate change mitigation;
9. Develop a projection of GHG emission by sources and removal by sinks under different mitigation scenarios, taking into account national sustainable development objectives;
10. Update the national GHG mitigation plan;
11. The draft technical report of the mitigation assessment and mitigation plan of the Lao PDR will be circulated to all relevant stakeholders. Local and national workshops will be organised to collect stakeholder comments and feedback;
12. The final findings of the mitigation assessment will be disseminated to all relevant stakeholders to further raise the awareness of climate change issues.

**Expected results:**

1. Mitigation options for key sources and sinks of GHGs prioritised according to economic (costs and benefits), social, environmental and technological benefits;
2. Baseline projections of GHGs by sources and sinks;
3. Projection of GHGs by sources and sinks under different mitigation scenarios;
4. Increased technical and institutional capacity to conduct a mitigation assessment;
5. Increased awareness of stakeholders of mitigation technologies and ancillary benefits;
6. Updated the National GHG mitigation plan.

**Output 5. Other information considered relevant to the achievement of the objective of the Convention**

In accordance with the Climate Change Convention, the SNC will provide information on steps taken to integrate climate change considerations into relevant social, economic and environmental policies, on activities related to the transfer of environmentally sound technologies, and on information, training and public awareness of climate change.

**Activities:**

1. Assess the level of integration of climate change issues into national development policy making and planning processes;

2. Formulate recommendations to increase the integration and mainstreaming of climate change and gender issues into social, economic and environmental policies;
3. Assess the level of awareness of climate change among policy makers, non-government organisations, research institutions, and relevant private sector entities;
4. Identify needs for awareness, training and education programmes on climate change and gender issues;
5. Assess and establish suitable institutional arrangements for the transfer of mitigation and adaptation technologies;
6. Formulate recommendations for the development of mechanisms to improve regional and international transfer of appropriate technologies, and their dissemination to a broad range of stakeholders;
7. Explore opportunities and recommend measures for promoting climate change information sharing and exchange with neighbouring countries and other international networks;
8. Draft technical report on other information considered relevant to the achievement of the objective of the Convention to be included in the SNC.

***Expected results :***

1. Increased integration of climate change into national development policies;
2. Increased public awareness and understanding of climate change and gender issues;
3. Proposals for programmes in education, training and public awareness of climate change;
4. Improved institutions for the transfer of mitigation and adaptation technologies;
5. Improved regional and international cooperation for transfers of appropriate technologies;
6. Improved regional and international cooperation for climate change information sharing and exchange.

**Output 6. Constraints and gaps, and related financial, technical and capacity needs**

The SNC will assess constraints, gaps, and related financial, technical and capacity needs, associated with the implementation of activities, measures and programmes envisaged under the Climate Change Convention, including the improvement of future national communications.

***Activities:***

1. Assess constraints and gaps associated with the preparation of the SNC;
2. Formulate recommendations to improve the preparation of national communications on a continuous basis;
3. Compile information on financial resources and technical support provided by government and international institutions for activities relating to climate change;
4. Assess financial requirements for activities to adapt to climate change and to mitigate GHG emissions;
5. Assess status of mitigation project profiles proposed in the FNC and NAPA, and determine barriers to their implementation;
6. Based on the vulnerability and adaptation assessment and the national GHG mitigation plan, propose a list of projects for financing (specific technologies to be used, materials/equipment required, techniques or practices);
7. Draft technical report on constraints and gaps, related financial, technical and capacity needs to be included in the SNC.

***Expected results:***

1. Recommendations on improvements of national communications ;
2. Estimated financial requirements for the implementation of the NAPA and of prioritised GHG mitigation measures ;
3. Project profiles for financing to adapt to climate change ; and
4. Project profiles for financing to reduce emissions by sources and enhancing removals by sinks.

**Output 7. Preparation and submission of the SNC**

***Activities:***

1. Prepare and translate a draft second national communication and circulate it for feedback ;
2. Organise workshops to review and discuss the draft SNC
3. Finalise the SNC, obtain government endorsement, and submit SNC, publication and dissemination of SNC Document

**Expected results :**

1. SNC reviewed and discussed by a wide range of stakeholders ;
2. SNC reflects the gender specific aspects of climate change; and
3. Second National Communication approved and disseminated in year 3 .

**Output 8: Effective project management**

**Activities:**

1. Support to project office operations ;
2. Inception Workshop ;
3. Project Final Meeting ;
4. Audit;
5. Independent evaluation;
6. Project Board meeting ;
7. Project management monthly meeting ;
8. Micro assessment of implementing partner c apacity; and
9. Spot checks.

**Expected results :**

1. Effective managerial and institutional arrangements for project implementation established ;
2. Technical and financial reports projected according to deadlines .
3. Sound financial management reflected in satisfactory audit reports ;
4. Sound financial and technical project management reflected in positive independent mid -term and final evaluations; and
5. Partner implementing capacity assessed.

**Output 9. Addressing climate change challenges**

An International Technical Advisor will provide comprehensive technical support and guidance to develop and implement the SNC and National Climate Change Strategy and Programme.

**Activities:**

1. Identify and develop a coordination mechanism between the multiple donors and INGOs that are involved in supporting climate change related activities
2. Support the Government to initiate consultative meetings and prepare briefs and policy papers on climate change
3. Provide technical, capacity building and institutional strengthening support to the Government, NSCCC, National Climate Change Office and Sector Working Groups to develop and implement the National Strategy on Climate Change
4. Map out currently active development partners, donors and private sector actors in the field of climate change in Lao PDR, conduct gap analysis, identify opportunities
5. Strengthen the partnership/coordination with key stakeholders, particularly the donors, private sector, and the government to identify opportunities, formulate joint initiatives with maximum impacts and efficiency, minimize duplication of efforts and reduce transaction costs
6. Support resource mobilization efforts of the Government on climate change especially with respect to climate change specific financing mechanisms such as MDG Carbon Facility, CDM, Reducing Emissions from Deforestation and Degradation (REDD) scheme, etc.

**Expected results :**

1. Climate Change Office with increased capacities to address the challenges that climate change poses to Lao PDR
2. SNC project implementation on-track
3. UNDP Lao PDR programme of support to the Government in the area of climate change strengthened
4. Strategic partnerships in the area of climate change identified and developed
5. Resource mobilization strategy elaborated and under implementation



## **6. Assessing project impact**

The project will contribute towards the achievement of national sustainable development objectives by supporting the Government with the development and implementation of the National Climate Change Strategy, and identifying GHG mitigation options as well as adaptation measures for climate change. The SNC and the National Climate Change Strategy will provide the basis for the integration of climate change issues into national development plans and sectoral plans. The major impacts of the Strategy and the SNC may be divided into two categories: (1) mainstreaming of climate change issues into the national sustainable development agenda, including greenhouse gas mitigation and climate change adaptation activities; (2) awareness raising of climate change issues of policy-makers and other relevant stakeholders. The impacts of the SNC and the Strategy are likely to materialise beyond the timeframe of the SNC preparation. At the onset of the project, assessment indicators will be developed following stakeholder consultations. These indicators will broadly cover sustainable development aspects (social, economic, environmental).

As a least developed party to the UNFCCC, the Lao PDR is entitled to full financing for the preparation of its national communications. The sustainability of the national communication process will depend on national execution and ownership of the project, technical and institutional capacities built, political willingness and leadership, and coordination and cooperation among organisations involved.

A practical framework to assess capacity development as a result of the preparation of the SNC will be developed after the project launch. UNDP's scorecard approach for assessing country capacity will provide the basis for this framework, which will cover: (i) capacity to formulate and implement policies, legislations, and plans; (ii) capacity to mobilise and manage resources for implementation of climate change activities; (iii) capacity to build consensus and partnerships among all stakeholders; (iv) capacity to access and use climate change and gender-related information; (v) capacity to monitor and evaluate project implementation; and (vi) capacity to contribute to international climate change negotiations.

The project will be monitored and evaluated following UNDP/GEF guidelines and procedures on reporting, monitoring and evaluation. The Implementing Partner (WREA) and the Project Manager will be responsible for monitoring project implementation on a continuous basis. The Project Manager, with the support of the working groups, is expected to prepare quarterly and annual work plans (AWP), as well as quarterly progress reports (QPR). The QPRs will provide a summary of project status, including output delivery, and explain variances from the work plan. Annual project reports (APR) will provide an in-depth summary of work-in-progress, measuring performance against both implementation and impact indicators. A project terminal report, to be finalised by completion of the project, will detail achievements and lessons learned.

All activities and the release of funds to carry them out will be based on annual and quarterly work plans. The funds allocated to the SNC project and annual work plan will be approved by the Project Board. The agreed activities will be undertaken appropriately.

UNDP will release funds to WREA quarterly on the basis of: 1) financial reports on the previous quarter's actual expenditures, with attached updated risk, issues and lessons learned logs, updated monitoring schedule, and estimate of expenditures for the following quarter; 2) quarterly operational work plans for the ensuing four months; and 3) updated procurement and recruitment plans for the remaining of the current year. Principles of Harmonized Approach to Cash Transfer (HACT) to Implementing Partners will be applied for SNC project funds control. The WG should submit the estimate for expenditures as well as the work plan for the ensuing quarter no later than 15 days prior to the beginning of the quarter to which they refer.

WREA is to open a bank account to which disbursements of funds on the part of UNDP will be accredited for the project.

With the assistance of the implementing partner's accountant, the PM will prepare quarterly advance statements using FACE Forms according to the HACT Guidelines, which must be signed by the Project Manager and endorsed by the Project Board Executive before the request for funds is forwarded to the UNDP Country Office for approval. UNDP Country Office will release funds upon approval of the reports and requests for funds. Processing of advance is as follows:

- The PM is to send the request to UNDP CO by the 10<sup>th</sup> of the first month of the ensuing quarter;
- UNDP CO appraises the requests and disburses the advance to the project;
- At the end of each quarter, a financial report is to be prepared by the PM and sent to UNDP CO.

At the end of the project, any unused funds remaining in the project bank account shall be returned to the UNDP Country Office within three months of the termination of this project or upon advice of the UNDP CO Resident Representative as maybe necessary under the circumstances.

The project will be carried out a Project Advisory Board Meeting at least once a year with participation of all stakeholders involved in the project implementation (representatives of the Government, WREA and UNDP). Upon the completion of the project, a final project review meeting will be organised.

Financial Reports (FR) will be prepared by WREA and submitted to UNDP on a quarterly basis in accordance with the Guidelines for National Execution.

The project will carry out an annual financial audit as per international standards within the framework of the UNDP HACT and UNDP/GEF requirements. Under the cash transfer modalities, a Funding Authorization and Certification of Expenditure (FACE) Form will be used and it will be prepared by the Project Manager and approved by the Project Board Executive. The audit will be conducted by an external auditor hired directly by UNDP Lao PDR. The audit report will be an integral part of the monitoring and evaluation process and its comments shall be taken into account in the annual progress review and evaluation of the project.

Gender mainstreaming will be realized, and associated analysis will investigate differential effects of climate change on men and women. The project will strongly encourage the participation and involvement of women in the project activities.

## 7. Results and Resources Framework

### Intended Outcome as stated in the Country Programme Action Plan Results and Resource Framework:

1. Improved and equitable access to land, markets and social and economic services, environmental ly sustainable utilization of natural resources

**Applicable Key Result Area (from 2008 -11 Strategic Plan):** By 2011, the livelihoods of poor, vulnerable and food insecure populations are enhanced through sustainable development (within the MDG framework)

**Partnership Strategy:** SNC will be nationally implemented by WREA, working in partnership with Technical Working Groups from relevant sectors and under the guidance and oversight of the NSCCC. Close coordination will also be maintained with other donors s upporting climate change related initiatives, including the World Bank and ADB, so as to ensure activities are complementary and mutually reinforcing.

**Project title and ID (ATLAS Award ID):** PIMS 2948 CC EA: Lao PDR Second National Communication on Climate Change (SNC); 00042082

INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 1. National Circumstances</b></p> <p><b>Indicator 1.1:</b> One technical national circumstances report containing updated information on climate change in Lao PDR completed and distributed to the public by the end of the first year  <b>Baseline 1.1:</b> Baseline data on national circumstances is made available from the FNC document completed in 2000</p> <p><b>Indicator 1.2:</b> Suggestions and recommendations provided by national staff under five Technical Working Groups and key senior management of WREA, MPWT, MIC, and MAF on draft National Circumstances Document  <b>Baseline 1.2:</b> No working groups established; decision makers to be engaged in the project implementation are not yet identified</p> <p><b>Indicator 1.3:</b> At least 5 significant recommendations provided for improvement of the National Circumstances chapter are received from each of the local authorities in 17 provinces  <b>Baseline 1.3:</b> No recommendations formed yet</p> <p><b>Indicator 1.4:</b> Participant lists indicate 30% female participation  <b>Baseline 14:</b> No consultations realized</p>	<p><b>Targets (year 1)</b></p> <p><b>Target 1.1:</b> Process of preparing an updated situation report initiated.</p> <p><b>Targets (year 2)</b></p> <p><b>Target 1.1:</b> An updated report on current country's situation with regard to sector policies, national strategies/plans, mechanisms and capacity for climate change adaptation and mitigation delivered to the public and UNFCCC</p> <p><b>Target 1.2:</b> By the end of year 2, 80% of national staff under five technical Working Groups and key senior management of WREA, MPWT, MIC, and MAF are able to explain the impact of climate change in Lao PDR and the concept of the National Circumstances Document.</p> <p><b>Target 1.3:</b> WREA, MAF, MIC, MPWT, MPI and local authorities in 17 provinces provide inputs and participate in the process of preparation of the draft National Circumstances chapter</p> <p><b>Target 1.4:</b> At least 30% of the participants in consultation workshops will be women</p>	<p><b>Activity Result:</b> Production of an updated report on current country's situation with regard to sector policies, national strategies/plans, mechanisms and capacity for climate change adaptation and mitigation delivered to the public and UNFCCC</p> <p><b>Action 1.1</b> Collect and analyse all sector strategies, plans and studies relevant to the formulation of the SNC, including national development plans and strategies</p> <p><b>Action 1.2</b> Update data and information on the national circumstances, including geographical characteristics, economy and education</p> <p><b>Action 1.3</b> Collect and analyse information on specific needs and concerns arising from climate change impacts and/or the impact of the implementation of response measures</p> <p><b>Action 1.4</b> Evaluate existing institutional arrangements and establish an agreed set-up for continuous preparation of national communications to the UNFCCC</p> <p><b>Action 1.5</b> Prepare draft National Circumstances chapter of the SNC based on outputs of activities 1.1, 1.2, 1.3 and 1.4 and distribute</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$12,000, GEF funded</p>

INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 2. National Greenhouse Gas Inventory</b></p> <p><b>Indicator 2.1:</b> Formal establishment and approval of working groups by relevant Government sectors  <b>Baseline 2.1:</b> Working groups not yet identified and established</p> <p><b>Indicator 2.2:</b> Application of IPPC Guide, GPG, and other relevant tools to review and update the national GHG by five strong National Technical Working Groups; before and after training assessments for working group members  <b>Baseline 2.2:</b> None of Lao national staff familiar with the IPPC Guide, GPG, and specific tools for standardized GHG inventory</p> <p><b>Indicator 2.3:</b> A minimum of three consultation workshops realized by the end of the third quarter of the second year  <b>Baseline 2.3:</b> GHG inventory processes not yet initiated</p> <p><b>Indicator 2.4:</b> One technical report containing updated National GHG Inventory and scientific proven information on GHG emission trend up to 2020 for Lao PDR available in hard and soft copies by the end of the first quarter of the third year of the project  <b>Baseline 2.4:</b> 1990 GHG inventory available; First National Communication available</p>	<p><b>Targets (year 1)</b></p> <p><b>Target 2.1:</b> Establishment of five sectoral working groups, with at least 30% female members</p> <p><b>Targets (year 2)</b></p> <p><b>Target 2.2:</b> All members of 5 new established sector working groups are able to apply IPPC Guide, GPG, and other relevant tools to review and update the national GHG inventory</p> <p><b>Target 2.3:</b> Widespread participation by relevant Government Sectors in the GHG Inventory</p> <p><b>Targets (year 3)</b></p> <p><b>Target 2.4:</b> Technical report containing the updated GHG inventory and estimated GHG emissions up to 2020 circulated to all stakeholders by end of 2009</p>	<p><b>Activity Result:</b> Production of an updated greenhouse gas inventory for Lao PDR</p> <p><b>Action 2.1</b> Establish sectoral working groups in energy and transport, industry, agriculture, waste, and land use change and forestry (LULUCF)</p> <p><b>Action 2.2</b> Conduct training for the working group members on the use of the revised 1996 IPCC Guidelines, Good Practice Guidance (GPG), and GPG for LULUCF</p> <p><b>Action 2.3</b> Review the 1990 GHG inventory, taking into consideration data gaps and areas needing improvement identified in the stock-taking exercise</p> <p><b>Action 2.4</b> Review reporting instructions for greenhouse gas inventory</p> <p><b>Action 2.5</b> Identify and analyse key source categories and priority GHGs</p> <p><b>Action 2.6</b> Collect activity data and statistics from national sources to fill inventory data gaps</p> <p><b>Action 2.7</b> Undertake national GHG inventory for the year 2000 and estimate emission trends to the year 2020</p> <p><b>Action 2.8</b> Conduct an uncertainty assessment with regards to emission factors and activity data</p> <p><b>Action 2.9</b> Explore opportunities for strengthening data management systems within and outside the government to increase accuracy for the preparation of national GHG inventories on a continuous basis</p> <p><b>Action 2.10</b> Explore cost-effective programmes to develop country-specific emission factors for improvements to future national GHG inventory exercises</p> <p><b>Action 2.11</b> Prepare the draft technical report for the national GHG inventory and circulate to all relevant stakeholders. Organise consultation workshops to present and discuss the results of the GHG inventory</p> <p><b>Action 2.12</b> Finalise the results of the national GHG inventory as a separate technical output with detailed references and methodologies for dissemination to all relevant stakeholders to further raise their awareness</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$ 86,000, GEF funded</p>

INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 3. Programmes containing Measures to Facilitate Adequate Adaptation to Climate Change</b></p> <p><b>Indicator 3.1:</b> At least three persons from each working group – of which at least one is a woman – trained on methods and tools for climate change impact assessment  <b>Baseline 3.1:</b> National Adaptation Programme of Action (NAPA) for climate change being developed; Lao staff have low capacity in undertaking vulnerability and adaptation assessments</p> <p><b>Indicator 3.2:</b> At least five sectoral technical reports available by the end of the first quarter of the third year of the project  <b>Baseline 3.2:</b> National Adaptation Programme of Action drafted, providing a useful basis for this target</p> <p><b>Indicator 3.3:</b> One technical report presenting the national vulnerability and adaptation assessment produced and distributed by the first quarter of the third year; one chapter addressing gender and vulnerability to climate change  <b>Baseline 3.3:</b> National Adaptation Programme of Action drafted, providing a useful basis</p>	<p><b>Targets (year 2)</b></p> <p><b>Target 3.1:</b> Members of five working groups, especially women and the National Disaster Management Authority of MLSW able to realize vulnerability and adaptation assessments</p> <p><b>Targets (year 3)</b></p> <p><b>Target 3.2:</b> Specific sectoral technical reports analyzing relevant data and information concerning vulnerability and adaptation to climate change, including associated measures, plans and programmes</p> <p><b>Target 3.3:</b> National technical report analyzing relevant data and information concerning vulnerability and adaptation to climate change, including associated measures, plans and programmes, and with one section specifically addressing gender and vulnerability and adaptation to climate change</p>	<p><b>Activity Result:</b> Development of national programmes that contain measures that facilitate adequate adaptation to climate change</p> <p><b>Action 3.1</b> Conduct training for the working group members and MLSW (Disaster Management) on methods and tools for conducting vulnerability and adaptation assessment</p> <p><b>Action 3.2</b> Generate appropriate climate change scenarios for the Lao PDR, using integrated models such as MAGICC and SCENGEN</p> <p><b>Action 3.3</b> Compile and analyse available records on climate-related disasters</p> <p><b>Action 3.4</b> Carry out more advanced sectoral vulnerability and adaptation assessments in agriculture, forest, water and water resources, and human health using global circulation models</p> <p><b>Action 3.5</b> Identify long-term priority adaptation strategies and measures, resulting from improved understanding of climate change effects on the country</p> <p><b>Action 3.6</b> Discuss uncertainties in emission and climate change scenarios in V&amp;A assessments</p> <p><b>Action 3.7</b> Identify national needs for adaptation technologies and the transfer of these technologies from other countries</p> <p><b>Action 3.8</b> Synthesise information and prepare long term adaptation strategies and measures based on NAPA and V&amp;A assessment</p> <p><b>Action 3.9</b> Draft technical report of the V&amp;A assessment for the Lao PDR and circulate it to relevant stakeholders. Organise consultation workshops to discuss the results of V&amp;A and the draft national adaptation plan and its mainstreaming</p> <p><b>Action 3.10</b> Finalise V&amp;A assessment and the national adaptation plan, and disseminate results</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$ 89,000, GEF funded</p>

INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 4. Programmes Containing Measures to Mitigate Climate Change</b></p> <p><b>Indicator 4.1:</b> At least three persons from each working group trained on methods and tools for climate change impact assessment; participant list; before and after training assessments  <b>Baseline 4.1:</b> Lao staff have limited technical knowledge in this area</p> <p><b>Indicator 4.2:</b> At least five key barriers to climate change identified by each of the sectors by the end of the second year of the project  <b>Baseline 4.2:</b> Barriers have not yet been identified</p> <p><b>Indicator 4.3:</b> One National GHG Mitigation Plan and Mitigation Assessment with gender aspects available and disseminated by the middle of the third year of the project  <b>Baseline 4.3:</b> 1990 GHG inventory available; First National Communication available</p>	<p><b>Targets (year 2)</b></p> <p><b>Target 4.1:</b> Members of five working groups – with at least one woman from each working group – able to apply appropriate methods and tools for mitigation analyses and assessment</p> <p><b>Targets (year 3)</b></p> <p><b>Target 4.2:</b> Key barriers to climate change identified by each of the sectors involved</p> <p><b>Target 4.3:</b> National GHG Mitigation Plan and Mitigation Assessment (technical report) with gender issues related to climate change impacts produced and distributed</p>	<p><b>Activity result:</b> Development of national programmes that contain measures to mitigate climate change</p> <p><b>Action 4.1</b> Conduct training for the working group members on the use of appropriate methods and tools for mitigation analyses and assessment (LEAP, ETO, STAIR, MARKAL-MACRO etc.)</p> <p><b>Action 4.2</b> Review previous work and studies on mitigation and renewable energy development, including the FNC, and strategies for power generation, and off-grid electrification using renewable energy</p> <p><b>Action 4.3</b> Based on the results from the GHG inventory, develop a baseline scenario for GHG emission by sources and removal by sinks</p> <p><b>Action 4.4</b> Conduct a climate change mitigation assessment using modeling tools</p> <p><b>Action 4.5</b> Identify and screen mitigation options for reduction potential and cost</p> <p><b>Action 4.6</b> Identify national needs for mitigation technology and the transfer of these technologies from other countries</p> <p><b>Action 4.7</b> Assess potential for accessing funding through the Clean Development Mechanism and identify potential CDM projects</p> <p><b>Action 4.8</b> Identify barriers to climate change mitigation and propose improvements to the national regulatory framework with regards to barriers to climate change mitigation</p> <p><b>Action 4.9</b> Develop a projection of GHG emission by sources and removal by sinks under different mitigation scenarios, taking into account national sustainable development objectives</p> <p><b>Action 4.10</b> Update the national GHG mitigation plan</p> <p><b>Action 4.12</b> Finalise the national GHG mitigation assessment and mitigation plan. Disseminate these to relevant stakeholders to further raise their awareness</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$ 53,500 GEF funded</p>

INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 5. Analysis of other Information Considered Relevant to Achievement of the Objective of the UNFCCC</b></p> <p><b>Indicator 5.1:</b> One set of recommendations on mainstreaming of climate change produced and distributed to relevant sectors by the middle of the second year; recommendations concerning gender and climate change  <b>Baseline 5.1:</b> The issue of mainstreaming climate change has not yet been addressed; issue of the differential impacts of climate change according to gender has not yet been discussed in detail at the policy level</p> <p><b>Indicator 5.2:</b> At least five different informational materials (e.g. posters, leaflets)- with reflection of gender issues and climate change impacts elaborated and disseminated by the end of the second year  <b>Baseline 5.2:</b> Low levels of knowledge about climate change and gender issues</p> <p><b>Indicator 5.3:</b> Government approval of institutional arrangements by the end of the second year  <b>Baseline 5.3:</b> No formal institutional arrangements in place for the transfer of mitigation and adaptation technologies</p> <p><b>Indicator 5.4:</b> One technical report on other information considered relevant to the achievement of the objective of the Convention produced and distributed by the end of the second year of the project  <b>Baseline 4.4:</b> First National Communication</p>	<p><b>Targets (year 3)</b></p> <p><b>Target 5.1:</b> Produce detailed set of recommendations on mainstreaming of climate change into social, economic and environmental policies, including the differential impacts of climate change according to gender</p> <p><b>Target 5.2:</b> Increased awareness about climate change and gender issues amongst policy makers and the general public</p> <p><b>Target 5.3:</b> Institutional arrangements for transfer of mitigation and adaptation technologies established</p> <p><b>Target 5.4:</b> Realize a comprehensive analysis of other factors considered relevant to the achievement of the objectives of the Convention</p>	<p><b>Activity result:</b> Production of technical report on other information considered relevant to the achievement of the objective of the Convention to be included in the SNC</p> <p><b>Action 5.1</b> Assess the level of integration of climate change issues into national development policies</p> <p><b>Action 5.2</b> Formulate recommendations to increase the mainstreaming for climate change into social, economic and environmental policies</p> <p><b>Action 5.3</b> Assess the level of awareness of climate change among policy makers, non-government organizations, research institutions, and relevant private sector entities</p> <p><b>Action 5.4</b> Identify needs for awareness, training and education programmes on climate change issues</p> <p><b>Action 5.5</b> Assess and establish suitable institutional arrangements for the transfer of mitigation and adaptation technologies</p> <p><b>Action 5.6</b> Formulate recommendations for the development of mechanisms to improve regional and international transfer of appropriate technologies and their dissemination to a broad range of stakeholders</p> <p><b>Action 5.7</b> Explore opportunities and recommend measures for promoting climate change information sharing and exchange with neighbouring countries and other international networks</p> <p><b>Action 5.8</b> Technical report on other information considered relevant to the achievement of the objective of the Convention to be included in the SNC</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$14,000, GEF funded</p>

INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 6. Analysis of Constraints and Gaps and Related Financial, Technical and Capacity Needs</b></p> <p><b>Indicator 6.1:</b> One technical report that assesses constraints and gaps and related financial, technical and capacity needs associated with the preparation of the SNC adopted by the government in year 3  <b>Baseline 6.1:</b> Capacity Needs Assessment for preparation of SNC not yet realized</p> <p><b>Indicator 6.2:</b> One briefing note summarizing assessment of financial and technical resources (i) available and (ii) required for activities relating to climate change (adaptation and mitigation) available by the middle of the third year of the project  <b>Baseline 6.2:</b> No detailed information available on financial resources and technical support provided by Gvt. and international institutions for activities related to climate change</p>	<p><b>Targets (Year 4)</b></p> <p><b>Target 6.1:</b> Comprehensive assessment of the constraints and gaps and related financial, technical and capacity needs</p> <p><b>Target 6.2:</b> Detailed knowledge of financial and technical resources (i) available and (ii) required for activities relating to climate change (adaptation and mitigation)</p>	<p><b>Activity result:</b> Technical report on constraints and gaps, related financial, technical and capacity needs to be included in the SNC</p> <p><b>Action 6.1</b> Assess constraints and gaps associated with the preparation of the SNC</p> <p><b>Action 6.2</b> Formulate recommendations to improve the preparation of national communications on a continuous basis</p> <p><b>Action 6.3</b> Compile information on financial resources and technical support provided by government and international institutions for activities related to climate change</p> <p><b>Action 6.4</b> Assess financial requirements for activities to adapt to climate change and to mitigate GHG emissions</p> <p><b>Action 6.5</b> Assess status of mitigation project profiles proposed in the FNC and determine barriers to their implementation</p> <p><b>Action 6.6</b> Based on the vulnerability and adaptation assessment and the national GHG mitigation plan, propose a list of project</p> <p><b>Action 6.7</b> Draft technical report on constraints and gaps, related financial, technical and capacity needs to be included in the SNC s for financing</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$ 9,000, GEF funded</p>



INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 7. Preparation and submission of the SNC</b></p> <p><b>Indicator 7.1:</b> At least thirty key stakeholders participate in review and discussion workshops organized for finalization of SNC  <b>Baseline 7.1:</b> No SNC document</p> <p><b>Indicator 7.2:</b> At least one section of the SNC specifically addresses the gender-specific impacts of climate change  <b>Baseline 7.2:</b> No detailed analysis of the gender-specific impacts of climate change has been undertaken</p> <p><b>Indicator 7.3:</b> One Second National Communication technical report produced, distributed and submitted to UNFCCC by the end of the third year of the project  <b>Baseline 7.3:</b> First National Communication document adopted and disseminated by the government in 2000</p>	<p><b>Targets (Year 4)</b></p> <p><b>Target 7.1:</b> SNC reviewed and discussed by a wide range of stakeholders</p> <p><b>Target 7.2:</b> SNC reflects the gender specific aspects of climate change</p> <p><b>Target 7.3:</b> Second National Communication approved and disseminated in year 3</p>	<p><b>Activity result:</b> SNC approved by Government and submitted to UNFCCC</p> <p><b>Action 7.1</b> Prepare and translate a draft second national communication and circulate it for feedback</p> <p><b>Action 7.2</b> Organise workshops to review and discuss the draft SNC</p> <p><b>Action 7.3</b> Finalise the SNC, obtain government endorsement, and submit SNC, publication and dissemination of SNC Document</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$ 25,000, GEF funded</p>
<p><b>Output 8: Effective project management</b></p> <p><b>Indicator 8.1:</b> Project management team and project office established and operational by the end of the first quarter of the project  <b>Baseline 8.1:</b> SNC project office have not yet been established and management team has not been fully formed</p> <p><b>Indicator 8.2:</b> 95% of technical and financial reports approved, signed and submitted according to deadlines  <b>Baseline 8.2:</b> Experience gained through preparing technical and financial reports for other projects</p> <p><b>Indicator 8.3:</b> Three audit reports no high risk observations and minimal medium / low risk observations  <b>Baseline 8.3:</b> Government has experience working with the UN on similar projects</p> <p><b>Indicator 8.4:</b> One mid-term and one final independent project evaluations successfully completed  <b>Baseline 8.4:</b> Government has experience working with the UN on similar projects</p> <p><b>Indicator 8.5:</b> One micro assessment report completed in year one  <b>Baseline 8.5:</b> No micro assessment yet conducted</p>	<p><b>Targets (Year 1 – 4 )</b></p> <p><b>Target 8.1:</b> Effective managerial and institutional arrangements for project implementation established</p> <p><b>Target 8.2:</b> Technical and financial reports projected according to deadlines</p> <p><b>Target 8.3:</b> Sound financial management reflected in satisfactory audit reports</p> <p><b>Target 8.4:</b> Sound financial and technical project management reflected in positive independent mid-term and final evaluations</p> <p><b>Target 8.5:</b> Partner implementing capacity assessed</p>	<p><b>Activity result:</b> Effective project management</p> <p><b>Action 8.1</b> Support to project office operations</p> <p><b>Action 8.2</b> Inception Workshop</p> <p><b>Action 8.3</b> Project Final Meeting</p> <p><b>Action 8.4</b> Audit</p> <p><b>Action 8.5</b> Midterm independent evaluation</p> <p><b>Action 8.6</b> Final independent evaluation</p> <p><b>Action 8.7</b> Project Board meeting</p> <p><b>Action 8.8</b> Project management monthly meeting</p> <p><b>Activity 8.9</b> Spot checks</p> <p><b>Action 8.10</b> Micro assessment of Implementing Partner capacity</p>	<p>WREA Other line Ministries, as appropriate</p> <p>Independent evaluators / auditors</p> <p>PMSU</p>	<p>US\$ 116,500, GEF</p> <p>US\$ 5,000, TRAC funded</p>

INTENDED OUTPUTS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
<p><b>Output 9: Addressing climate change challenges</b></p> <p><b>Indicator 9.1:</b> Establishment of coordination mechanism for climate change activities  <b>Baseline 9.1:</b> National Steering Committee on Climate Change has been established</p> <p><b>Indicator 9.2:</b> National Climate Change Strategy elaborated and endorsed by Government  <b>Baseline 9.2:</b> Sector working groups have been established</p> <p><b>Indicator 9.3:</b> Government capacity in climate change and related issues improved, as evident in contributions towards the SNC process and related technical briefings  <b>Baseline 9.3:</b> Low levels of capacity</p> <p><b>Indicator 9.4:</b> Implementation of National Climate Change strategy is evident in the activities of at least three sectors  <b>Baseline 9.4:</b> Sectoral institutions do not consider climate change in their planning exercises and activities</p>	<p><b>Targets (year 1)</b></p> <p><b>Target 9.1:</b> Coordination mechanism for Climate Change activities, involving donors and Government, established</p> <p><b>Target 9.2:</b> National Climate Change Strategy elaborated by Sector Working Groups and endorsed by Government</p> <p><b>Targets (year 1 – 4)</b></p> <p><b>Target 9.3:</b> Strategic partnerships in the area of climate change identified and developed</p> <p><b>Target 9.4:</b> Resource mobilization strategy for climate change elaborated and under implementation</p> <p><b>Target 9.5:</b> UNDP Lao PDR programme of support to the Government in the area of climate change strengthened</p> <p><b>Target 9.6:</b> Capacity building activities directed at the National Climate Change Office and Sectoral Working Groups developed and supported</p> <p><b>Target 9.7:</b> Support provided to the development, coordination and implementation of activities relating to Climate Change</p>	<p><b>Activity result:</b> Comprehensive and consolidated climate change strategy developed and being implemented by the Lao Government</p> <p><b>Action 9.1</b> Identify and develop a coordination mechanism between the multiple donors and INGOs that are involved in supporting climate change related activities</p> <p><b>Action 9.2</b> Support the Government to initiate consultative meetings and prepare briefs and policy papers on climate change</p> <p><b>Action 9.3</b> Provide technical, capacity building and institutional strengthening support to the Government, NSCCC, National Climate Change Office and Sector Working Groups to develop and implement the National Strategy on Climate Change</p> <p><b>Action 9.4</b> Map out currently active development partners, donors and private sector actors in the field of climate change in Lao PDR, conduct gap analysis, identify opportunities</p> <p><b>Action 9.5</b> Strengthen the partnership/coordination with key stakeholders, particularly the donors, private sector, and the government fora to identify opportunities, formulate joint initiatives with maximum impacts and efficiency, minimize duplication of efforts and reduce transaction costs</p> <p><b>Action 9.6</b> Support resource mobilization efforts of the Government on climate change especially with respect to climate change specific financing mechanisms such as MDG Carbon Facility, CDM, Reducing Emissions from Deforestation and Degradation (REDD) scheme, etc.</p>	<p>WREA Other line Ministries, as appropriate</p>	<p>US\$ 331,500 TRAC funded</p>

## 8. Detailed Work Plan (GEF and TRAC Budget)

Expected Output	Planned activities (list activity results and associated actions)	Timeframe												Planned Budget						
		08	2009				2010				2011				Responsible party	Funding source	Budget Description		Amount	Total
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
<p><b>Overall output (after 3 years):</b> The Second National Communication Document presented to UNFCCC</p> <p><b>Overall Target:</b> The government-approved Second National Communication (SNC) document is presented to UNFCCC</p> <p><b>Overall Indicator:</b> One Government-approved SNC for Lao PDR presented to UNFCCC, available to the public, and widely disseminated by 2010</p> <p><b>Overall baseline:</b> The SNC is not yet prepared; FNC approved and submitted</p>																				
<p><b>1. National Circumstances</b></p> <p><b>Target 1.1:</b> An updated report on current country's situation with regard to sector policies, national strategies/plans, mechanisms and capacity for climate change adaptation and mitigation delivered to the public and UNFCCC</p> <p><b>Indicator 1.1:</b> One technical national circumstances report containing updated information on climate change in Lao PDR completed and distributed to the public by the end of the first year</p> <p><b>Baseline 1.1:</b> Baseline data on national circumstances is made available from the FNC document completed in 2000</p> <p><b>Target 1.2:</b> By the end of year 2, 80% of national staff under five technical Working Groups and key senior management of WREA, MPWT, MIC, and MAF are able to explain the impact of climate change in Lao PDR and the concept of the</p>	<p><b>Activity Result:</b> Production of an updated report on current country's situation with regard to sector policies, national strategies/plans, mechanisms and capacity for climate change adaptation and mitigation delivered to the public and UNFCCC</p>																			
	1.1. Collect and analyse all sector strategies, plans and studies relevant to the formulation of the SNC, including national development plans and strategies	x	x												WREA	GEF Trustee	71300	National consultants	5,000	12,000
	1.2. Update data and information on the national circumstances, including geographical characteristics, economy and education	x	x													GEF Trustee	71600	Travel	3,000	
	1.3. Collect and analyse information on specific needs and concerns arising from climate change impacts and/or the impact of the implementation of response measures	x	x	x												GEF Trustee	72500	Supplies	2,000	

<p>National Circumstances Document.  <b>Indicator 1.2:</b> Suggestions and recommendations provided by national staff under five Technical Working Groups and key senior management of WREA, MPWT, MIC, and MAF on draft National Circumstances Document  <b>Baseline 1.2:</b> No working groups established; decision makers to be engaged in the project implementation are not yet identified  <b>Target 1.3:</b> WREA, MAF, MIC, MPWT, MPI and local authorities in 17 provinces provide inputs and participate in the process of preparation of the draft National Circumstances chapter  <b>Indicator 1.3:</b> At least 5 significant recommendations provided for improvement of the National Circumstances chapter are received from each of the local authorities in 17 provinces  <b>Baseline 1.3:</b> No recommendations formed yet  <b>Target 1.4:</b> At least 30% of the participants in consultation workshops will be women  <b>Indicator 1.4:</b> Participant lists indicate 30% female participation  <b>Baseline 1.4:</b> No consultations realized</p>	<p>1.4. Evaluate existing institutional arrangements and establish an agreed set-up for continuous preparation of national communications to the UNFCCC</p>	x	x	x														GEF Trustee	74500	Miscellaneous	2,000		
	<p>1.5. Prepare draft National Circumstances chapter of the SNC based on outputs of activities 1.1, 1.2, 1.3 and 1.4 and distribute</p>				x	x																	
	<p>1.6 Conduct national and regional consultation of stakeholders on draft National Circumstances chapter and incorporate comments and feedback in finalising it</p>																						
<p><b>2. National Greenhouse Gas Inventory</b>  <b>Target 2.1:</b> Establishment of five sectoral working groups, with at least 30% female members  <b>Indicator 2.1:</b> Formal establishment and approval of working groups by relevant Government sectors  <b>Baseline 2.1:</b> Working groups not yet identified and established  <b>Target 2.2:</b> All members of 5 new established sector working groups are able to apply IPPC Guide, GPG, and other relevant tools to review and update the national GHG</p>	<p><b>Activity Result:</b> Production of an updated greenhouse gas inventory for Lao PDR</p>																						
	<p>2.1. Establish sectoral working groups in energy and transport, industry/urban, agriculture, waste, and land use change and forestry (LUCF)</p>	x																WREA	GEF Trustee	71100	International ALD	36,000	<b>86,000</b>
	<p>2.2. Conduct training for the working group members on the use of the revised 1996 IPCC Guidelines, Good Practice Guidance (GPG), and GPG for LUCF</p>			x	x														GEF Trustee	71300	National consultants	17,000	

<p>inventory</p> <p><b>Indicator 2.2:</b> Application of IPPC Guide, GPG, and other relevant tools to review and update the national GHG by five strong National Technical Working Groups; before and after training assessments for working group members</p> <p><b>Baseline 2.2:</b> None of Lao national staff familiar with the IPPC Guide, GPG, and specific tools for standardized GHG inventory</p> <p><b>Target 2.3:</b> Widespread participation by relevant Government Sectors in the GHG Inventory</p> <p><b>Indicator 2.3:</b> A minimum of three consultation workshops realized by the end of the third quarter of the second year</p> <p><b>Baseline 2.3:</b> GHG inventory processes not yet initiated</p> <p><b>Target 2.4:</b> Technical report containing the updated GHG inventory and estimated GHG emissions up to 2020 circulated to all stakeholders by end of the third year</p> <p><b>Indicator 2.4:</b> One technical report containing updated National GHG Inventory and scientific proven information on GHG emission trend up to 2020 for Lao PDR available in hard and soft copies by the end of the first quarter of the third year of the project</p> <p><b>Baseline 2.4:</b> 1990 GHG inventory available; First National Communication available</p>	2.3. Review the 1990 GHG inventory, taking into consideration data gaps and areas needing improvement identified in the stock-taking exercise																	GEF Trustee	71600	Travel	17,000		
	2.4. Review reporting instructions for greenhouse gas inventory																		GEF Trustee	72500	Supplies	3,000	
	2.5. Identify and analyse key source categories and priority GHGs																		GEF Trustee	72800	IT Equipment	4,000	
	2.6. Collect activity data and statistics from national sources to fill inventory data gaps																		GEF Trustee	74200	Audio visual & Print Prod Costs	6,000	
	2.7. Undertake national GHG inventory for the year 2000 and estimate emission trends to the year 2020																		GEF Trustee	74500	Miscellaneous	3,000	
	2.8. Conduct an uncertainty assessment with regards to emission factors and activity data																						
	2.9. Explore opportunities for strengthening data management systems within and outside the government to increase accuracy for the preparation of national GHG inventories on a continuous basis																						
	2.10 Explore cost-effective programmes to develop country-specific emission factors for improvements to future national GHG inventory exercises																						
	2.11. Prepare the draft technical report for the national GHG inventory and circulate to all relevant stakeholders. Organise consultation workshops to present and discuss the results of the GHG inventory																						





related to climate change impacts produced and distributed <b>Indicator 4.3:</b> One National GHG Mitigation Plan and Mitigation Assessment with gender aspects available and disseminated by the middle of the third year of the project <b>Baseline 4.3:</b> 1990 GHG inventory available; First National Communication available	4.6. Identify national needs for mitigation technology and the transfer of these technologies from other countries																GEF Trustee	74200	Audio visual & Print Prod Costs Supplies	5,000		
	4.7. Assess potential for accessing funding through the Clean Development Mechanism and identify potential CDM projects																	GEF Trustee	74500	Miscellaneous	2,500	
	4.8. Identify barriers to climate change mitigation and propose improvements to the national regulatory framework with regards to barriers to climate change mitigation																					
	4.9. Develop a projection of GHG emission by sources and removal by sinks under different mitigation scenarios, taking into account national sustainable development objectives																					
	4.10. Update the national GHG mitigation plan																					
	4.11. Draft technical report of the mitigation assessment and mitigation plan of the Lao PDR. Organise consultation workshops to circulate and discuss the national GHG mitigation plan																					
	4.12. Finalise the national GHG mitigation assessment and mitigation plan. Disseminate these to relevant stakeholders to further raise their awareness																					
<b>5. Other Information Considered Relevant to Achievement of the Objective of the Convention</b> <b>Target 5.1:</b> Produce detailed set of recommendations on mainstreaming of climate change into social,	<b>Activity result:</b> Production of technical report on other information considered relevant to the achievement of the objective of the Convention to be included in the SNC																					





objective of the Convention produced and distributed by the end of the second year of the project <b>Baseline 5.4:</b> First National Communication																			
<b>6. Constraints and Gaps and Related Financial, Technical and Capacity Needs</b> <b>Target 6.1:</b> Comprehensive assessment of the constraints and gaps and related financial, technical and capacity needs <b>Indicator 6.1:</b> One technical report that assesses constraints and gaps and related financial, technical and capacity needs associated with the preparation of the SNC adopted by the government in year 3 <b>Baseline 6.1:</b> Capacity Needs Assessment for preparation of SNC not yet realized <b>Target 6.2:</b> Detailed knowledge of financial and technical resources (i) available and (ii) required for activities relating to climate change (adaptation and mitigation) <b>Indicator 6.2:</b> One briefing note summarizing assessment of financial and technical resources (i) available and (ii) required for activities relating to climate change (adaptation and mitigation) available by the middle of the third year of the project <b>Baseline 6.2:</b> No detailed information available on financial resources and technical support provided by Gvt. and international institutions for activities related to climate change	<b>Activity result:</b> Technical report on constraints and gaps, related financial, technical and capacity needs to be included in the SNC																		
	6.1. Assess constraints and gaps associated with the preparation of the SNC								x	x				WREA	GEF Trustee	71300	National consultant(s)	6,000	<b>9,000</b>
	6.2. Formulate recommendations to improve the preparation of national communications on a continuous basis									x	x				GEF Trustee	71600	Travel	1,000	
	6.3. Compile information on financial resources and technical support provided by government and international institutions for activities related to climate change														GEF Trustee	72500	Supplies	700	
	6.4. Assess financial requirements for activities to adapt to climate change and to mitigate GHG emissions														GEF Trustee	74200	Audio visual & Print Prod Costs Supplies	800	
	6.5. Assess status of mitigation project profiles proposed in the FNC and determine barriers to their implementation														GEF Trustee	74500	Miscellaneous	500	
	6.6. Based on the vulnerability and adaptation assessment and the national GHG mitigation plan, propose a list of projects for financing																		
6.7. Draft technical report on constraints and gaps, related financial, technical and capacity needs to be included in the SNC																			
<b>7. Preparation and submission of the SNC</b> <b>Target 7.1:</b> SNC reviewed and	<b>Activity result:</b> SNC approved by Government and submitted to UNFCCC																		

<p>discussed by a wide range of stakeholders  <b>Indicator 7.1:</b> At least thirty key stakeholders participate in review and discussion workshops organized for finalization of SNC  <b>Baseline 7.1:</b> No SNC document  <b>Target 7.2:</b> SNC reflects the gender specific aspects of climate change  <b>Indicator 7.2:</b> At least one section of the SNC specifically addresses the gender-specific impacts of climate change  <b>Baseline 7.2:</b> No detailed analysis of the gender-specific impacts of climate change has been undertaken  <b>Target 7.3:</b> Second National Communication approved and disseminated in year 3  <b>Indicator 7.3:</b> One Second National Communication technical report produced, distributed and submitted to UNFCCC by the end of the third year of the project  <b>Baseline 7.3:</b> First National Communication document adopted and disseminated by the government in 2000</p>	7.1. Prepare and translate a draft second national communication and circulate it for feedback																					x	x	WREA	GEF Trustee	71100	International ALD	11,000	25,000			
	7.2. Organise workshops to review and discuss the draft SNC																							x	x		GEF Trustee	71300	National consultants	6,000		
	7.3. Finalise the SNC, obtain government endorsement, and submit SNC, publication and dissemination of SNC Document																								x		GEF Trustee	71600	Travel	1,500		
																											GEF Trustee	72100	Contractual services-companies	2,000		
																											GEF Trustee	72500	Supplies	1,000		
																											GEF Trustee	74200	Audio visual & Print Prod Costs	3,000		
																											GEF Trustee	74500	Miscellaneous	500		
<p><b>8. Project Management</b>  <b>Target 8.1:</b> Effective managerial and institutional arrangements for project implementation established  <b>Indicator 8.1:</b> Project management team and project office established and operational by the end of the first quarter of the project  <b>Baseline 8.1:</b> SNC project office have not yet been established and management team has not been fully formed  <b>Target 8.2:</b> Technical and financial reports projected according to deadlines  <b>Indicator 8.2:</b> 95% of technical and financial reports approved, signed and submitted according to deadlines  <b>Baseline 8.2:</b> Experience gained</p>	<b>Activity result:</b> Effective project management																															
	8.1 Project Office operations	x	x	x	x	x	x	x	x	x	x	x	x	x	x											WREA	GEF Trustee	71400	Service Contracts-Individuals	75,820	121,500	
	8.2 Inception Workshop	x																								UNDP	TRAC	74100	Professional services	5,000		
	8.3 Project Final Meeting																								x	WREA	GEF Trustee	71600	Travel	7,800		
																											GEF Trustee	72400	Communication	7,300		
																											GEF Trustee	72500	Supplies	4,800		



<p><b>Baseline 9.2:</b> Sector working groups have been established</p> <p><b>Target 9.3:</b> Government capacity in climate change and related issues improved through capacity building activities directed at the National Climate Change Office and Sectoral Working Groups developed and supported</p> <p><b>Indicator 9.3:</b> Significant contributions towards the SNC process and related technical briefings</p> <p><b>Baseline 9.3:</b> Low levels of capacity</p> <p><b>Target 9.4:</b> National Climate Change Strategy elaborated by Sector Working Groups and endorsed by Government</p> <p><b>Indicator 9.4:</b> Implementation of National Climate Change strategy is evident in the activities of at least three sectors</p> <p><b>Baseline 9.4:</b> Sectoral institutions do not consider climate change in their planning exercises and activities</p>																														
																														<p style="text-align: right;"><b>Total I: 741,500</b></p>

## 9. Management Arrangements

The project implementation will be undertaken by the appointed national agencies involved and operated by the Department of Environment of Water Resources and the Environment Administration (WREA) under NEX modality. The management arrangements for the preparation of the SNC will follow the standard project management arrangements for the UNDP Lao PDR supported projects. A new programme/project institutional framework presented in the Appendix B, Section 5, will be finalised and agreed upon between the UNDP and the Government of Lao PDR by the end of 2007. At all levels, the participation of women in the processes of project planning, management, implementation, monitoring and evaluation will be strongly encouraged.

### Institutional Framework for Project Implementation

The project will be implemented by Department of Environment Climate Change Office of WREA under NEX modality. The management arrangements for the preparation of the SNC will follow the standard project management arrangements for the UNDP Lao PDR supported projects. The Project Manager and the International Technical Advisor will provide be institutionally located within the Climate Change Office of WREA, and the Working Groups will be harmonized with the structure of the Climate Change Office (GHGI, V&A, Mitigation) and associated Sector Working Groups. The proposed structure is presented below:

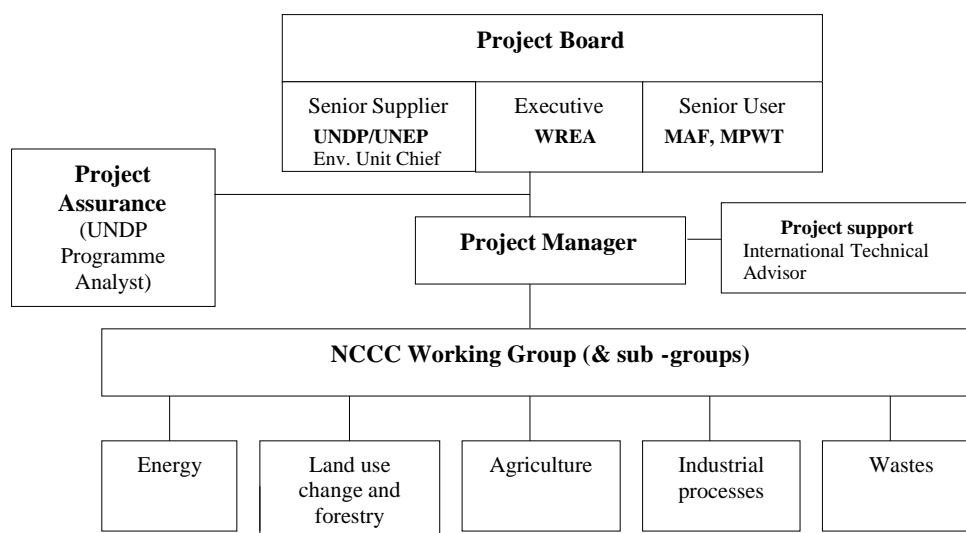


Figure 1. Project management structure

To support the sustainability of the climate change work in Lao PDR, to ensure effective implementation and utilise the existing capacity on climate change in the Lao PDR, the institutional framework for the SNC project will be based on the structures and individuals involved in the National Climate Change Office, the CCEAP project Lao/95/G31 and the NAPA project.

To promote capacity building, gender balance, self-reliance and sustainability, ownership and internalisation of external inputs, and relevance of impacts, the project will be nationally driven and implementation led by appointed government officials. The national implementation is based on the willingness of the government to assume management responsibilities for the project. The key principles for national implementation are: (a) use of government rules and procedures when consistent with internationally recognised practises, to ensure integration with and relevance to national programmes and structures; (b) government accountability for the effective use of UNDP resources through adequate financial reporting and the achievement of project objectives; (c) adherence to UNDP regulations and rules, when the UNDP Lao PDR office provides support services. It is advised that this structure is included in the proposal for discussion until it is finalised later this year.

The institutional framework will consist of the following entities:

Water Resources and Environment Administration (WREA) is the UNFCCC and GEF Focal Point for the Lao PDR and is to be designated as the Implementing Partner for the project. WREA will be accountable for the delivery of the project outputs and the achievements of the project objectives. WREA will be responsible for the planning and overall management of the project activities, including reporting, accounting, monitoring and evaluation, and use of resources.

**Oversight: Project Board** The Project Board is the group responsible for making executive management decisions for the project when guidance is required by the Project Manager, including approval of project revisions. Project assurance reviews by this group are made at designated decision points during the running of a project, or as necessary when raised by the Project Manager. This group is consulted by the Project Manager for decisions when project tolerances have been exceeded. The group contains three roles: an Executive to chair the group (representative of WREA), a Senior Supplier (representatives of UNDP) to provide guidance during the technical feasibility of the project, and a Senior Beneficiary (MAF) to ensure the realisation of project benefits from the perspective of project beneficiaries.

**Project Assurance: UNDP** The responsibility of project assurance is to support the Project Board and the Outcome Board by carrying out objective and independent project oversight and monitoring functions. This role will be a responsibility of a UNDP Programme Analyst.

**Project Management:**

**Project Manager** The Project Manager is responsible for day-to-day management and decision-making for the project as well as ensuring that the project outputs and results are delivered as planned. The Implementing Partner, in this case WREA, will appoint the Project Manager. The Project Manager's roles include but not limited to: determining when, where, and how activities take place; ensure that the project stays on track; inform all stakeholders on progress; resolve impasses and conflicts among all stakeholders. WREA will designate the Alternate or Officer in charge of the project when the Project Manager is not available.

**International Technical Advisor**. The Climate Change Technical Advisor will work closely with relevant government agencies, primarily WREA, the Ministry of Agriculture (MAF) and the Sector Working Groups, providing technical, operational and strategic advice, and relevant capacity development services. S/he will provide technical assistance to the Government to develop the SNC, and his/her work will include capacity building and institutional strengthening activities with the Climate Change Office and the Working Groups as they develop the National Strategy on Climate Change. S/he will also work closely with the UNDP/UNEP Environment Unit team to develop a climate change action programme and oversee its implementation. S/he will identify opportunities for partnership building with donors, private sector and other actors in the field of climate change mitigation and adaptation. The Advisor will advise on climate change-related resource mobilization, particularly available carbon financing options including the MDG Carbon Facility. S/he will also provide technical advisory services on a wide range of climate change related issues.

**Project Support**. Project support comprises of administrative staff and possible advisors. Project support based at WREA will be in charge of day-to-day project implementation and ensure that the project outputs are achieved as planned. Project support staff will work under the direct supervision of the Project Manager.

To facilitate the implementation of the project, the UNDP Lao PDR CO will provide support services to the project in accordance with UNDP procedures as requested. These services may include sub-contract arrangements and the procurement of goods and services. A summary of the project personnel is provided in the table below.

**Working Groups**. The project will establish multidisciplinary working groups with technical staff from relevant government agencies. These working groups will be responsible for carrying out technical aspects of the project with support from the international technical advisors. There will be five groups: (1) energy, (2) land use change and forestry, (3) agriculture, (4) industrial processes, and (5) waste. The sectoral working groups will operate under the direct supervision of the individual Sectoral Working Group Team Leader and Project Manager.

Table 1. Project management team

Project Board Executive	Director General, Department of Environment (DoE), Water Resource and Environment Administration (WREA) (Dr. Viengsavanh Douangsavanh)
Project Board Senior Supplier	Manager, UNDP/UNEP Environment Unit, UNDP Lao PDR
Project Board Beneficiaries	-Representative of Ministry of Agriculture and Forestry (To be determined) -Representative of Ministry of Public Works and Transport (To be determined)
Project Manager	Director of Planning and Cooperation Division and Climate Change Office, DOE/WREA (Mr. Syamphone Sengchandala)  Alternate Project Manager: DoE/WREA (Mr. Immala Inthaboualy)
International Climate Change Technical Advisor	To be hired
Project Assurance	Programme Analyst, UNDP Lao PDR (Mr. Vichit Sayavongkhamdy)
Project Support Staff	1. Project Technical Assistant: To be Designated 2. Project Technical assistant: To be Designated 3. Project Accountant (Mrs. Phonexay Xaykosy, DoE/WREA) 4. Project Manager Assistant: To be hired 5. Project Driver: To be hired
Energy Working Group Team Leader	Ministry of Energy and Mines: To be Designated
Land Use Planning Working Group Team Leader	Land Resource Management Agency: To be Designated
Agriculture Working Group Team Leader	Ministry of Agriculture and Forestry: To be Designated
Industry Working Group Team Leader	Ministry of Industry and Handicraft: To be Designated
Waste Working Group Team Leader	Ministry of Public Works and Transport: To be Designated

## 10. Monitoring and Evaluation

The monitoring and evaluation (M&E) of the project will follow the GEF and UNDP guidelines for M&E. When project implementation is initiated, a micro assessment of the national implementing partner's capacity will be conducted. This assessment will examine their capacity to effectively manage the project and deliver the intended outputs. The major criteria considered in this assessment relate to managerial, administrative, and financial capacity. The conduct of the assessment will be undertaken based upon the UNDP's standard procedures and guidelines for HACT. Micro assessment costs are included in the project budget. Spot-checks will be realized periodically to facilitate sound financial and administrative management of the project.

A detailed schedule of project reviews will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Project Board Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities. Equal involvement of women and men in the process of project monitoring and evaluation will be promoted and reflected in the following activities and documentation.

### Monitoring responsibilities and events

Day to day monitoring of implementation progress will be the responsibility of the Project Manager based on the project's Annual Work Plan and its indicators. The Project Team will inform the UNDP CO Project Assurance of any delays or difficulties faced during implementation through the standard UNDP procedures so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

Periodic monitoring of implementation progress will be undertaken by the UNDP CO through monthly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely manner to ensure smooth implementation of project activities.

Quarterly monitoring will involve a quality assessment that records progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table.

Annual Monitoring will occur through the Project Board Meeting (PBM). This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The Project Board Annual Meeting will be held at least once every year. The first such meeting will be held within the first twelve



months of the start of full implementation. The project Implementing Partner will prepare an Annual Project Report (APR) and submit it to UNDP CO and the UNDP-GEF regional office at least two weeks prior to the Project Board Meeting for review and comments.

The APR will be used as one of the basic documents for discussions in the PBM. The project proponent will present the APR to the PBM, highlighting policy issues and recommendations for the decision of the PBM participants. The project Implementing Partner also informs the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary.

#### Project Monitoring Reporting

The Project Manager in conjunction with the UNDP CO team will be responsible for the preparation and submission of the following reports that form part of the monitoring process.

##### **(a) Inception Report (IR)**

A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year Work Plan divided in quarterly timeframes detailing the activities and progress indicators that will guide implementation during the first year of the project. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 month time -frame.

The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. The report will also specify cash transfer modalities.

When finalized, the report will be circulated to project stakeholders for comments or queries. Prior to this circulation of the IR, the UNDP CO and UNDP -GEF's Regional Coordinating Unit will review the document.

##### **(b) Issue, risk and lessons learned logs**

Based on the initial risk analysis submitted (see annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation. An Issue Log (see Annex 2) shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change. Based on the above information recorded in Atlas, a Project Progress Reports (PPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot. A project lesson-learned log (see Annex 4) shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project

##### **(c) Quarterly Operational Progress Reports (QOPR)**

Short reports outlining main updates in project progress with the focus on technical achievements will be provided quarterly to UNDP CO and the UNDP -GEF Regional Coordinating Unit by the project team.

##### **(d) Annual Review Report (ARR)**

An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre -defined annual targets at the output level.

##### **(e) Annual Project Review (APR)**

The APR is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring and project management. It is a self -assessment report by project management to the Project Board. An

APR will be prepared on an annual basis (normally by December of the year) prior to the Project Board Meeting, to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The report will be based on the above -mentioned ARR.

The format of the APR is flexible but should include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- AWP and other expenditure reports
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

**(f) Mid-term and independent Evaluation**

A mid-term evaluation will be carried out in the third quarter of the second year, and a final evaluation will be conducted during the final year of the project. Terms of Reference for the independent evaluations will be developed by the UNDP Country Office with inputs from GEF.

**(g) Technical Reports**

Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft report list, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the project, and tentative due dates. Where necessary this report list will be revised and updated, and included in subsequent APRs. Technical reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

**Audit Clause**

The SNC project will be audited annually. Audit costs are included in the project budget. The audit will be an integral part of the monitoring and evaluation process and its contents shall be taken into account in the annual progress report of the project.

The Government will provide the Resident Representative with certified quarterly financial reports. An annual audit of the financial statements relating to the status of UNDP (including GEF) funds will be conducted by the legally recognised auditor according to the established procedures and international standards within the framework of Harmonised Approach to Cash Transfer (HACT).

## Quality Management for Project Activity Results

OUTPUT 1: National Circumstances		
<b>Activity Result 1</b> (Atlas Activity ID)	<b>Activity Result:</b> Production of an updated report on current country's situation with regard to sector policies, national strategies/plans, mechanisms and capacity for climate change adaptation and mitigation delivered to the public and UNFCCC (NatCirc)	<b>Start Date:</b> Oct. 2008 <b>End Date:</b> Dec. 2009
<b>Purpose</b>	Count upon a clear situation analysis upon which the SNC process can be based.	
<b>Description</b> (list planned actions to produce the activity result)	<b>Action 1.1</b> Collect and analyse all sector strategies, plans and studies relevant to the formulation of the SNC, including national development plans and strategies <b>Action 1.2</b> Update data and information on the national circumstances, including geographical characteristics, economy and education <b>Action 1.3</b> Collect and analyse information on specific needs and concerns arising from climate change impacts and/or the impact of the implementation of response measures <b>Action 1.4</b> Evaluate existing institutional arrangements and establish an agreed set-up for continuous preparation of national communications to the UNFCCC <b>Action 1.5</b> Prepare draft National Circumstances chapter of the SNC based on outputs of activities 1.1, 1.2, 1.3 and 1.4 and distribute	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 1.1:</b> One technical national circumstances report containing updated information on climate change in Lao PDR completed and distributed to the public by the end of the first year	Revision of report by Government and UNDP experts to ensure: <ul style="list-style-type: none"> <li>§ Inclusion of relevant information, documents and reports;</li> <li>§ Consideration of lessons learned from past experiences;</li> <li>§ Main stakeholders have participated in the elaboration of the technical report;</li> <li>§ Opportunity has been provided for women to participate in the elaboration of the technical report.</li> </ul>	Preliminary assessment: Jun. 2009  Final assessment: Dec. 2009
<b>Indicator 1.2:</b> Suggestions and recommendations provided by national staff under five Technical Working Groups and key senior management of WREA, MPWT, MIC, and MAF on draft National Circumstances Document		
<b>Indicator 1.3:</b> At least 5 significant recommendations provided for improvement of the National Circumstances chapter are received from each of the local authorities in 17 provinces		
<b>Indicator 1.4:</b> Participant lists indicate 30% female participation		

<b>OUTPUT 2: National Greenhouse Gas Inventory</b>		
<b>Activity Result 2 (Atlas Activity ID)</b>	<b>Activity Result:</b> Production of an updated greenhouse gas inventory for Lao PDR (NatInvet)	<b>Start Date:</b> Oct 2008 <b>End Date:</b> Dec. 2010
<b>Purpose</b>	Identify and characterize Lao PDR's contribution to greenhouse gas emissions by sector.	
<b>Description</b> <i>(list planned actions to produce the activity result)</i>	<p><b>Action 2.1</b> Establish sectoral working groups in energy and transport, industry, agriculture, waste, and land use change and forestry (LULUCF)</p> <p><b>Action 2.2</b> Conduct training for the working group members on the use of the revised 1996 IPCC Guidelines, Good Practice Guidance (GPG), and GPG for LULUCF</p> <p><b>Action 2.3</b> Review the 1990 GHG inventory, taking into consideration data gaps and areas needing improvement identified in the stock-taking exercise</p> <p><b>Action 2.4</b> Review reporting instructions for greenhouse gas inventory</p> <p><b>Action 2.5</b> Identify and analyse key source categories and priority GHGs</p> <p><b>Action 2.6</b> Collect activity data and statistics from national sources to fill inventory data gaps</p> <p><b>Action 2.7</b> Undertake national GHG inventory for the year 2000 and estimate emission trends to the year 2020</p> <p><b>Action 2.8</b> Conduct an uncertainty assessment with regards to emission factors and activity data</p> <p><b>Action 2.9</b> Explore opportunities for strengthening data management systems within and outside the government to increase accuracy for the preparation of national GHG inventories on a continuous basis</p> <p><b>Action 2.10</b> Explore cost-effective programmes to develop country-specific emission factors for improvements to future national GHG inventory exercises</p> <p><b>Action 2.11</b> Prepare the draft technical report for the national GHG inventory and circulate to all relevant stakeholders. Organise consultation workshops to present and discuss the results of the GHG inventory</p> <p><b>Action 2.12</b> Finalise the results of the national GHG inventory as a separate technical output with detailed references and methodologies for dissemination to all relevant stakeholders to further raise their awareness</p>	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 2.1:</b> Formal establishment and approval of working groups by relevant Government sectors	<ul style="list-style-type: none"> <li>§ Analysis of before and after training assessments of working group members</li> <li>§ Working groups play a leading role in the GHG inventory, as evidenced in analysis and reports from their specific sector</li> <li>§ GHG Inventory incorporates comments and inputs from relevant sectors and national experts, as evident in consultation workshops</li> </ul> <p>Revision of report by Government and UNDP experts to ensure:</p> <ul style="list-style-type: none"> <li>§ Inclusion of relevant information, documents and reports;</li> <li>§ Consideration of lessons learned from past experiences;</li> <li>§ Main stakeholders have participated in the elaboration of the technical report;</li> <li>§ Opportunity has been provided for women to participate in the elaboration of the technical report.</li> </ul>	<p>Following training and workshops</p> <p>Preliminary review: Jun. 2010 Final review: Dec. 2010</p>
<b>Indicator 2.2:</b> Application of IPCC Guide, GPG, and other relevant tools to review and update the national GHG by five strong National Technical Working Groups; before and after training assessments for working group members		
<b>Indicator 2.3:</b> A minimum of three consultation workshops realized by the end of the third quarter of the second year		
<b>Indicator 2.4:</b> One technical report containing updated National GHG Inventory and scientific proven information on GHG emission trend up to 2020 for Lao PDR available in hard and soft copies by the end of the first quarter of the third year of the project		

<b>OUTPUT 3: Programmes containing Measures to Facilitate Adequate Adaptation to Climate Change</b>		
<b>Activity Result 3</b> (Atlas Activity ID)	<b>Activity Result:</b> Development of national programmes that contain measures that facilitate adequate adaptation to climate change (VulAdap)	<b>Start Date:</b> Jun. 2009 <b>End Date:</b> Dec. 2010
<b>Purpose</b>	Capacity of the Government to both plan for and facilitate adaptation to climate change is significantly improved	
<b>Description</b> <i>(list planned actions to produce the activity result)</i>	<p><b>Action 3.1</b> Conduct training for the working group members and MLSW (Disaster Management) on methods and tools for conducting vulnerability and adaptation assessment</p> <p><b>Action 3.2</b> Generate appropriate climate change scenarios for the Lao PDR, using integrated models such as MAGICC and SCENGEN</p> <p><b>Action 3.3</b> Compile and analyse available records on climate-related disasters</p> <p><b>Action 3.4</b> Carry out more advanced sectoral vulnerability and adaptation assessments in agriculture, forest, water and water resources, and human health using global circulation models</p> <p><b>Action 3.5</b> Identify long-term priority adaptation strategies and measures, resulting from improved understanding of climate change effects on the country</p> <p><b>Action 3.6</b> Discuss uncertainties in emission and climate change scenarios in V&amp;A assessments</p> <p><b>Action 3.7</b> Identify national needs for adaptation technologies and the transfer of these technologies from other countries</p> <p><b>Action 3.8</b> Synthesise information and prepare long term adaptation strategies and measures based on NAPA and V&amp;A assessment</p> <p><b>Action 3.9</b> Draft technical report of the V&amp;A assessment for the Lao PDR and circulate it to relevant stakeholders. Organise consultation workshops to discuss the results of V&amp;A and the draft national adaptation plan and its mainstreaming</p> <p><b>Action 3.10</b> Finalise V&amp;A assessment and the national adaptation plan, and disseminate results</p>	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 3.1:</b> At least three persons from each working group – of which at least one is a woman - trained on methods and tools for climate change impact assessment	<ul style="list-style-type: none"> <li>§ Analysis of before and after training assessments of working group members</li> <li>§ Working groups play a leading role in the V&amp;A assessment, as evidenced in analysis and reports from their specific sector</li> <li>§ V&amp;A assessment incorporates comments and inputs from relevant sectors and national experts, as evident in consultation workshops</li> </ul>	Following training and workshops  Preliminary review: Jun. 2010 Final review: Dec. 2010
<b>Indicator 3.2:</b> At least five sectoral technical reports available by the end of the first quarter of the third year of the project		
<b>Indicator 3.3:</b> One technical report presenting the national vulnerability and adaptation assessment produced and distributed by the first quarter of the third year; one chapter addressing gender and vulnerability to climate change		
	Revision of report by Government and UNDP experts to ensure: <ul style="list-style-type: none"> <li>§ Inclusion of relevant information, documents and reports;</li> <li>§ Consideration of lessons learned from past experiences;</li> <li>§ Main stakeholders have participated in the elaboration of the technical report;</li> <li>§ Opportunity has been provided for women to participate in the elaboration of the technical report.</li> </ul>	

<b>OUTPUT 4: Programmes Containing Measures to Mitigate Climate Change</b>		
<b>Activity Result 1</b> (Atlas Activity ID)	<b>Activity result:</b> Development of national programmes that contain measures to mitigate climate change (Mitiga)	<b>Start Date:</b> Oct. 2009 <b>End Date:</b> Mar. 2011
<b>Purpose</b>	Measures to mitigate climate change are mainstreamed within Government programming	
<b>Description</b> (list planned actions to produce the activity result)	<p><b>Action 4.1</b> Conduct training for the working group members on the use of appropriate methods and tools for mitigation analyses and assessment (LEAP, ETO, STAIR, MARKAL-MACRO etc.)</p> <p><b>Action 4.2</b> Review previous work and studies on mitigation and renewable energy development, including the FNC, and strategies for power generation, and off-grid electrification using renewable energy</p> <p><b>Action 4.3</b> Based on the results from the GHG inventory, develop a baseline scenario for GHG emission by sources and removal by sinks</p> <p><b>Action 4.4</b> Conduct a climate change mitigation assessment using modeling tools</p> <p><b>Action 4.5</b> Identify and screen mitigation options for reduction potential and cost</p> <p><b>Action 4.6</b> Identify national needs for mitigation technology and the transfer of these technologies from other countries</p> <p><b>Action 4.7</b> Assess potential for accessing funding through the Clean Development Mechanism and identify potential CDM projects</p> <p><b>Action 4.8</b> Identify barriers to climate change mitigation and propose improvements to the national regulatory framework with regards to barriers to climate change mitigation</p> <p><b>Action 4.9</b> Develop a projection of GHG emission by sources and removal by sinks under different mitigation scenarios, taking into account national sustainable development objectives</p> <p><b>Action 4.10</b> Update the national GHG mitigation plan</p> <p><b>Action 4.11</b> Draft technical report of the mitigation assessment and mitigation plan of the Lao PDR. Organise consultation workshops to circulate and discuss the national GHG mitigation plan</p> <p><b>Action 4.12</b> Finalise the national GHG mitigation assessment and mitigation plan. Disseminate these to relevant stakeholders to further raise their awareness</p>	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 4.1:</b> At least three persons from each working group trained on methods and tools for climate change impact assessment; participant list; before and after training assessments	<ul style="list-style-type: none"> <li>§ Analysis of before and after training assessments of working group members</li> <li>§ Working groups play a leading role in the development of the mitigation plan, as evidenced in analysis and reports from their specific sector</li> <li>§ Mitigation plan and assessment incorporates comments and inputs from relevant sectors and national experts, as evident in consultation workshops</li> </ul> <p>Revision of Mitigation Plan and Assessment by Government and UNDP experts to ensure:</p> <ul style="list-style-type: none"> <li>§ Inclusion of relevant information, documents and reports;</li> <li>§ Consideration of lessons learned from past experiences;</li> <li>§ Main stakeholders have participated in the elaboration of the technical report;</li> <li>§ Opportunity has been provided for women to participate in the elaboration of the recommendations.</li> </ul>	<p>Following training and workshops</p> <p>Preliminary review: Dec. 2011 Final review: Mar. 2011</p>
<b>Indicator 4.2:</b> At least five key barriers to climate change identified by each of the sectors by the end of the second year of the project		
<b>Indicator 4.3:</b> One National GHG Mitigation Plan and Mitigation Assessment with gender aspects available and disseminated by the middle of the third year of the project		

<b>OUTPUT 5: Analysis of other Information Considered Relevant to Achievement of the Objective of the UNFCCC</b>			
<b>Activity Result 5 (Atlas Activity ID)</b>	<b>Activity Result:</b> Production of technical report on other information considered relevant to the achievement of the objective of the Convention to be included in the SNC ( <b>InfoAn</b> )	<b>Start Date:</b> Oct. 2009 <b>End Date:</b> Sep. 2011	
<b>Purpose</b>	SNC is elaborated based on an active analysis and consideration of other information considered relevant to the achievement of the objective of the Convention		
<b>Description</b> <i>(list planned actions to produce the activity result)</i>	<b>Action 5.1</b> Assess the level of integration of climate change issues in to national development policies <b>Action 5.2</b> Formulate recommendations to increase the mainstreaming for climate change into social, economic and environmental policies <b>Action 5.3</b> Assess the level of awareness of climate change among policy makers, non-government organisations, research institutions, and relevant private sector entities <b>Action 5.4</b> Identify needs for awareness, training and education programmes on climate change issues <b>Action 5.5</b> Assess and establish suitable institutional arrangements for the transfer of mitigation and adaptation technologies <b>Action 5.6</b> Formulate recommendations for the development of mechanisms to improve regional and international transfer of appropriate technologies and their dissemination to a broad range of stakeholders <b>Action 5.7</b> Explore opportunities and recommend measures for promoting climate change information sharing and exchange with neighbouring countries and other international networks <b>Action 5.8</b> Technical report on other information considered relevant to the achievement of the objective of the Convention to be included in the SNC		
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>	
<b>Indicator 5.1:</b> One set of recommendations on mainstreaming of climate change produced and distributed to relevant sectors by the middle of the second year; recommendations concerning gender and climate change	Revision of guidelines, informational materials and technical report by Government and UNDP to ensure: <ul style="list-style-type: none"> <li>§ Inclusion of relevant information, documents and reports;</li> <li>§ Consideration of lessons learned from past experiences;</li> <li>§ Main stakeholders have participated in the elaboration of the technical report;</li> <li>§ Opportunity has been provided for women to participate in the elaboration of the recommendations.</li> </ul>	Preliminary review: Apr. 2011 Final review: Sep. 2011	
<b>Indicator 5.2:</b> At least five different informational materials (e.g. posters, leaflets) - with reflection of gender issues and climate change impacts elaborated and disseminated by the end of the second year			
<b>Indicator 5.3:</b> Government approval of institutional arrangements by the end of the second year			
<b>Indicator 5.4:</b> One technical report on other information considered relevant to the achievement of the objective of the Convention produced and distributed by the end of the second year of the project			

<b>OUTPUT 6: Analysis of Constraints and Gaps and Related Financial, Technical and Capacity Needs</b>		
<b>Activity Result 6 (Atlas Activity ID)</b>	<b>Activity Result:</b> Technical report on constraints and gaps, related financial, technical and capacity needs to be included in the SNC <b>(Gaps)</b>	<b>Start Date:</b> Oct. 2010 <b>End Date:</b> Mar. 2011
<b>Purpose</b>	Mechanism for assessing constraints and gaps associated with the preparation of the SNC established, thereby ensuring the identification and documentation of best practices and lessons learned	
<b>Description</b> <i>(list planned actions to produce the activity result)</i>	<b>Action 6.1</b> Assess constraints and gaps associated with the preparation of the SNC <b>Action 6.2</b> Formulate recommendations to improve the preparation of national communications on a continuous basis <b>Action 6.3</b> Compile information on financial resources and technical support provided by government and international institutions for activities related to climate change <b>Action 6.4</b> Assess financial requirements for activities to adapt to climate change and to mitigate GHG emissions <b>Action 6.5</b> Assess status of mitigation project profiles proposed in the FNC and determine barriers to their implementation <b>Action 6.6</b> Based on the vulnerability and adaptation assessment and the national GHG mitigation plan, propose a list of projects <b>Action 6.7</b> Draft technical report on constraints and gaps, related financial, technical and capacity needs to be included in the SNC s for financing	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 6.1:</b> One technical report that assesses constraints and gaps and related financial, technical and capacity needs associated with the preparation of the SNC adopted by the government in year 3	Revision of technical report and briefing notes by Government and UNDP to ensure: <ul style="list-style-type: none"> <li>§ Evidence of documentation of lessons learned;</li> <li>§ Active proposals to address and minimize the impacts of constraints and gaps;</li> <li>§ Main stakeholders have participated in the elaboration of the technical report and are therefore aware of constraints and gaps.</li> </ul>	Preliminary review: Dec. 2010 Final review: Mar. 2011
<b>Indicator 6.2:</b> One briefing note summarizing assessment of financial and technical resources (i) available and (ii) required for activities relating to climate change (adaptation and mitigation) available by the middle of the third year of the project		

<b>OUTPUT 7: Preparation and submission of the SNC</b>		
<b>Activity Result 7 (Atlas Activity ID)</b>	<b>Activity Result:</b> SNC approved by Government and submitted to UNFCCC ( <b>SNCDoc</b> )	<b>Start Date:</b> Apr. 2011 <b>End Date:</b> Sep. 2011
<b>Purpose</b>	Compliance with Lao PDR's obligations to UNFCCC and international availability of Lao PDR's SNC	
<b>Description</b> <i>(list planned actions to produce the activity result)</i>	<b>Action 7.1</b> Prepare and translate a draft second national communication and circulate it for feedback <b>Action 7.2</b> Organise workshops to review and discuss the draft SNC <b>Action 7.3</b> Finalise the SNC, obtain government endorsement, and submit SNC, publication and dissemination of SNC Document	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 7.1:</b> At least thirty key stakeholders participate in review and discussion workshops organized for finalization of SNC	Revision of SNC by Government and UNDP to ensure: <ul style="list-style-type: none"> <li>§ SNC builds upon the prior work and analysis of the Sector Working Groups;</li> <li>§ Stakeholder participation in SNC is evident;</li> <li>§ SNC actively considers gender-specific impacts of climate change;</li> <li>§ Final SNC submitted to UNFCCC</li> </ul>	Preliminary review: Jul. 2011 Final review: Sep. 2011
<b>Indicator 7.2:</b> At least one section of the SNC specifically addresses the gender-specific impacts of climate change		
<b>Indicator 7.3:</b> One Second National Communication technical report produced, distributed and submitted to UNFCCC by the end of the third year of the project		



<b>OUTPUT 8: Effective project management</b>		
<b>Activity Result 8 (Atlas Activity ID)</b>	<b>Activity Result: Effective project management (ProMan)</b>	<b>Start Date:</b> Oct. 2008 <b>End Date:</b> Sep. 2011
<b>Purpose</b>	Ensure project is completed on schedule, with minimal operational constraints and with sound financial and technical management	
<b>Description</b> <i>(list planned actions to produce the activity result)</i>	<b>Action 8.1</b> Support to project office operations <b>Action 8.2</b> Inception Workshop <b>Action 8.3</b> Project Final Meeting <b>Action 8.4</b> Audit <b>Action 8.5</b> Midterm independent evaluation <b>Action 8.6</b> Final independent evaluation <b>Action 8.7</b> Project Board meeting <b>Action 8.8</b> Project management monthly meeting <b>Action 8.9</b> Spot checks <b>Action 8.10</b> Micro assessment on Implementing Partner Capacity	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 8.1:</b> Project management team and project office established and operational by the end of the first quarter of the project	§ Monthly analysis of project management in project management meetings	Monthly basis During Project Board Meetings
<b>Indicator 8.2:</b> 95% of technical and financial reports approved, signed and submitted according to deadlines	§ Assessment of the establishment of a mechanism for identifying and documenting best practice and lessons learned	
<b>Indicator 8.3:</b> Three audit reports no high risk observations and minimal medium / low risk observations	§ Assessment of the implementation of recommendations and lessons from relevant evaluations	
<b>Indicator 8.4:</b> One mid-term and one final independent project evaluations successfully completed	§ Outcome of micro-assessment to be revised by project team and UNDP	
<b>Indicator 8.5:</b> One micro assessment report completed in year one		

<b>OUTPUT 9: Addressing climate change challenges</b>		
<b>Activity Result 9 (Atlas Activity ID)</b>	<b>Activity Result:</b> Comprehensive and consolidated climate change strategy developed and being implemented by the Lao Government <b>(Strategy)</b>	<b>Start Date:</b> Jan. 2009 <b>End Date:</b> Sep. 2011
<b>Purpose</b>	Government counts on comprehensive technical support and guidance to develop and implement the National Climate Change Strategy and Programme	
<b>Description</b> <i>(list planned actions to produce the activity result)</i>	<p><b>Action 9.1</b> Identify and develop a coordination mechanism between the multiple donors and INGOs that are involved in supporting climate change related activities</p> <p><b>Action 9.2</b> Support the Government to initiate consultative meetings and prepare briefs and policy papers on climate change</p> <p><b>Action 9.3</b> Provide technical, capacity building and institutional strengthening support to the Government, NSCCC, National Climate Change Office and Sector Working Groups to develop and implement the National Strategy on Climate Change</p> <p><b>Action 9.4</b> Map out currently active development partners, donors and private sector actors in the field of climate change in Lao PDR, conduct gap analysis, identify opportunities</p> <p><b>Action 9.5</b> Strengthen the partnership/coordination with key stakeholders, particularly the donors, private sector, and the government fora to identify opportunities, formulate joint initiatives with maximum impacts and efficiency, minimize duplication of efforts and reduce transaction costs</p> <p><b>Action 9.6</b> Support resource mobilization efforts of the Government on climate change especially with respect to climate change specific financing mechanisms such as MDG Carbon Facility, CDM, Reducing Emissions from Deforestation and Degradation (REDD) scheme, etc.</p> <p><b>Action 9.7</b> Support results based management and reporting.</p>	
<b>Quality Criteria</b> <i>how/with what indicators the quality of the activity result will be measured?</i>	<b>Quality Method</b> <i>Means of verification. What method will be used to determine if quality criteria has been met?</i>	<b>Date of Assessment</b> <i>When will the assessment of quality be performed?</i>
<b>Indicator 9.1:</b> Establishment of coordination mechanism for climate change activities	Government and UNDP to assess: § Establishment and operational effectiveness of coordination mechanism for climate change activities § Sectoral contributions to SNC, as well as the mainstreaming of climate change related issues into their planning and activities	Apr. 2009 and on a quarterly basis thereafter  On a quarterly basis
<b>Indicator 9.2:</b> National Climate Change Strategy elaborated and endorsed by Government		
<b>Indicator 9.3:</b> Government capacity in climate change and related issues improved, as evident in contributions towards the SNC process and related technical briefings		
<b>Indicator 9.4:</b> Implementation of National Climate Change strategy is evident in the activities of at least three sectors		

## 11. Legal Context

This document together with the CPAP signed by the Government and UNDP on 28 March 2007, which is incorporated by reference, constitute a project document as referred to in Article I of the Standard Basic Assistance Agreement (SBAA) between the Government of the Lao People's Democratic Republic and the United Nations Development Programme, signed by the parties 10 October 1988. All CPAP provisions apply to this document. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

UNDP acts in this Project as Implementing Agency of the GEF, and all rights and privileges pertaining to UNDP as per the terms of the Standard Basic Assistance Agreement (SBAA) shall be extended mutatis mutandis to GEF.

The UNDP Resident Representative is authorized to effect in writing the following types of revision to this Project Document, provided that she/he has verified the agreement thereto by GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

- a) Revision of, or addition to, any of the annexes to the Project Document;
- b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via :

<http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>

This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

## Appendix A: Initial Offline Risk Log

Project Title: Second National Communication Award ID: Date:

#	Description	Date Identified	Type	Impact (I) & Probability (P)	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	The Government agencies directly associate with the project management and implementation have limited qualified staff, do not assign sufficient or appropriate staff to involve with the project or make frequent changes	30 August 2007	Human Resource and institutional Capacity	P = 4 I = 4  P x I = 4 x 4 = 16	-Observation of the working relation by WREA and UNDP Lao -Organization of regular project meeting to discuss the issues, refine the management/action plans and implementation strategy	WREA UNDP	Project Manager, Project Assurance	14 January 2008	
2	Poor in project coordination leads to low participation of stakeholders and the implementation process is slower than anticipated	30 August 2007	-Operational & Programmatic  -Organizational Regulatory	P = 4 I = 4  P x I = 4 x 4 = 16	-Observation of the working relation by WREA and UNDP Lao -Organization of regular project meeting to discuss the issues, refine the management/action plans and implementation strategy	WREA UNDP	Project Manager, Project Assurance	14 January 2008	

Note: P min = 1 (Lowest); P max = 5 (Highest), I min = 1 (Lowest); I max = 5 (Highest)

## Appendix B: Initial Offline Issue Log

Project Title: Second National Communication      Award ID:      Date:

#	Description	Date Identified	Type	Impact (I) & Priority (P)	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
1	During the Project Initiating Stage, there are some difficulties in finalizing of the project document including the agreement between UNDP and WREA on modality for obtaining signatures for the project document: to sign officially in a formal ceremony or by exchanging the signatures.	December 2007	Operational	Potential impact: delay in project implementation  I = 4 P = 4  I x P = 16	WREA and UNDP to discuss and exchange views at project level then at senior management level	WREA UNDP	Project Manager, Project Assurance	May 2008	
2	Project developers have limited knowledge and understanding on UNDP Result-Based Management Guidelines causing delay in improvement and approval of project document.	April 2008	Operational	Potential impact: delay in project implementation	UNDP provided training on RMG for Government and UNDP staff in June 2008	WREA UNDP	Project Manager, Project Assurance	July 2008	

## Appendix C: Initial Offline Communication and Monitoring Plan

Project Title: Second National Communication			Award ID:	Date:	
Type of Action (Types of Monitoring/Communication Action)	Stakeholders (Types of stakeholders)	Method of communication	Due by (Timeline for each type of the report/communication)	Completed on (Date of completed action)	Status (Status of action)
Project Delivery Reports (financial and narrative)	Project/WREAà UNDP	Report	Quarterly	Detailed timeframe to be identified by management team	
Quarterly Project Combine Delivery Report	UNDPà Project/WREA	Report	Quarterly		
UNDP Monthly Exchange Rate	UNDPà WREA/Project	Document	Monthly		
FACE forms and IPOA documentations	UNDPà Project/WREA	Report/document	Quarterly		
Quarterly Project Direct Payment List	Project/WREAà UNDP	Report/document	Quarterly		
Annual Procurement and HR Plan	Project/WREAà UNDP	Report/document	Annually		
Update of project risk, issue, lessons learned logs and communication and monitoring plan	Project/WREAà UNDP	Report	Quarterly		
Monthly Project Workplan, Financial and Progress Report	Working Groupà PM	Report/document	Monthly		
Quarterly workplans and progress reports	Project/WREAà UNDP	Report	Quarterly		
Annual workplans and progress reports	Project/WREAà UNDP	Report	Annually		
Monitoring visits, audits and spot checks	Project/WREAà UNDP	Report	Within 10 days after the event		
Annual review meeting	Project/WREAà UNDP	Report	Annually		
Project Board meeting Report	Project/WREAà UNDP	Report	Quarterly		
Audit Report	Project/WREAà UNDP	Report	Annually		
Audit Implementation Action Plan	Project/WREAà UNDP	Report	As agreed		
Monthly Meeting Report	Project/WREAà UNDP	Report	Monthly (within 7 days after the meeting date)		

## Appendix D: Initial Offline Lessons Learned Log

Project Title: Second National Communication      Award ID:      Date:

Lesson ID	Date logged	Type	Description	Recommendation
#		-Good (management and quality processes that went well)  -Bad (management and quality processes that went badly)  -Lacking (management and quality processes that were lacking)	A description of any lessons learned	Recommendations for future enhancement or modification of the project management method
1	21 July 2008	Good	Provision of policy advice by senior management and technical guidance including training on Result -based Management Guidelines for Personnel responsible for project development and management is very important factor for the success of the newly project development and approval process	Strengthening of technical capacity of institutions and personnel responsible for project design, implementation and management is essential and should be continued throughout the development process.

## **Appendix E: Terms of Reference**

### **I - Project Board**

The primary responsibilities of the Project Board are to:

- § Lay down policies defining the functions, responsibilities and delegation of powers for the core Project Team and the NCCC Working Group;
- § Facilitate coordination of project activities across institutions and ensure that the government and UNDP inputs to the project are forthcoming in a timely and effective manner;
- § Review and approve the project activities and budget as set out in the Annual Work Plan for their adherence to the national policies and the work plan set in the project document;
- § Provide guidance on the issues brought to its notice by the Project Manager, UNDP Project Assurance and other cooperating institutions;
- § Provide general advises regarding efficient and timely execution of the project.

The composition of the Project Board is:

1. Water Resources and Environment Administration (Chair)
2. UNDP/UNEP Environment Unit Chief
3. Representatives of Ministry of Agriculture and Forestry, and Ministry of Public Works and Transports.

### **II – Project Manager (PM)**

Project Manager will be appointed according to the implementation guidelines for the UNDP - supported projects in Lao PDR. Project Manager is responsible for the day -to-day management of the project.

Main responsibilities of the PM include:

- § Manage day-to-day issues and make the decision for the project ;
- § Overseeing project implementation with systems put in place for sound management of all project subcontracts and financial disbursements ;
- § Overseeing project implementation to ensure that the project achieves its objectives and delivers outputs as planned ;
- § Preparing detailed work plans and identifying resource requirements, responsibilities, task outlines, and performance evaluation criteria ;
- § Prepare quarterly and annual progress reports ;
- § Sign all Funding Authorization and Certification of Expenditure (FACE) forms ;
- § Resolve impasses and conflicts among stakeholders at the project level ; and
- § Initiate remedial action to remove impediments in the progress of project activities that were not envisaged earlier .

### **III – National Communication on Climate Change (NCCC) Working Group and the Sectoral Working Groups**

The Working Group will be responsible for preparing the SNC and in the future, coordinating the implementation of SNC activities. Existing members of the Technical Working Group of the CCEAP project Lao/95/G31 and NAPA Working Groups will form the basis for the NCCC.

The NCCC Working Group will be multi -disciplinary, composed of individuals from a variety of sectors and government agencies in order to ensure that the SNC is comprehensive and covers the social, economic and environmental aspects of sustainable development. This NCCC Working Group will be responsible for carrying out all technical aspects of the project and has been divided into sectoral teams: (1) energy, (2) land use change and forestry, (3) agriculture, (4) industrial processes, and (5) waste. The sectoral working groups operate under the direct supervision of the individual Sectoral Working Group Team Leaders who will lead the team and ensure the delivery of outputs. The Project Manager will facilitate the work of the working groups.

The NCCC and the sectoral working groups could include following government organisations:

- § Water Resources and Environment
  - Department of Environment
  - Environment Research Institute
  - Department of Meteorology and Hydrology



- Lao National Mekong Committee.
- § Ministry of Commerce and Industry
  - Department of Industry
- § Ministry of Agriculture and Forestry
  - Department of Forestry
  - Department of Agriculture
  - Department of Irrigation
- § Ministry of Energy and Mines
  - Department of Electricity
  - Department of Geology and Mining
- § Ministry of Public Works and Transports
  - Department of Urban Planning and Housing
  - Department of Transportation
- § Ministry of Public Health
- § Ministry of Foreign Affairs
- § Ministry of Labour and Social Welfare
- § Department of National Land Use Planning and Development
- § National Tourism Authority
- § National University of Lao PDR
- § National Statistic Centre
- § Lao Women Union
- § Other agencies and organisations as necessary

With the support of international and local consultants, the main responsibilities of the Sectoral Working Groups are:

#### ***GHG Inventory***

1. Participate in training on the use of the revised 1996 IPCC Guidelines, GPG, and GPG for LULUCF;
2. Review the 1990 GHG inventory, taking into consideration data gaps and areas needing improvement identified in the stock-taking exercise;
3. Review reporting instructions for greenhouse gas inventory ;
4. Identify and analyse key source categories and priority GHGs ;
5. Collect activity data and statistics from national sources to fill inventory data gaps;
6. Undertake national GHG inventory for the selected year (preferably for the year 2000) ;
7. Conduct an uncertainty assessment with regards to emission factors and activity data;
8. Explore opportunities for strengthening data management systems for the preparation of national GHG inventories on a continuous basis;
9. Explore cost-effective programmes to develop country-specific emission factors ; and
10. Finalise the GHG inventory.

#### ***Vulnerability and Adaptation***

1. Participate in training on methods and tools for conducting vulnerability and adaptation assessment;
2. Generate appropriate climate change scenarios for Lao PDR, using integrated models such as MAGICC and SCENGEN;
3. Compile and analyse available records on climate-related disasters;
4. Identify long-term priority adaptation strategies and measures, based on NAPA and V & A assessment;
5. Discuss uncertainties in emission and climate change scenarios in V&A assessments;
6. Synthesise information and prepare a national adaptation plan of action building on NAPA. The national adaptation plan will discuss resource mobilisation and budget, implementation arrangements and timeframe/milestones for adaptation to climate change; and
7. Finalise V&A assessment and the national adaptation plan .

#### ***Mitigation***

1. Review previous work and studies on mitigation and renewable energy development;
2. Participate in training on the use of appropriate methods and tools for mitigation analyses and assessment (LEAP, ETO, STAIR, MARKAL -MACRO etc.);
3. Based on the results from the GHG inventory, develop a baseline scenario for GHG emission by sources and removal by sinks;
4. Conduct a climate change mitigation assessment using modelling tools;

5. Identify and screen mitigation options for reduction potential and cost;
6. Identify barriers to mitigation and propose improvements to the national regulatory framework;
7. Develop a projection of GHG emission by sources and removal by sinks under different mitigation scenarios, taking into account national sustainable development objectives; and
8. Finalise a national GHG mitigation plan .

**Other Information**

1. Assess the level of integration of climate change and gender issues into national development policies;
2. Formulate recommendations to increase the mainstreaming for climate change and gender issues into social, economic and environmental policies;
3. Assess the level of awareness of climate change among policy makers, non-government organisations, research institutions, and relevant private sector entities with a focus on gender issues;
4. Identify needs for awareness, training and education programmes;
5. Identify national needs for adaptation and mitigation technologies;
6. Assess institutional arrangements for the transfer of mitigation and adaptation technologies;
7. Formulate recommendations for the development of mechanisms to improve regional and international transfer of appropriate technologies and their dissemination.

**IV - International Technical Advisors**

One Climate Change Technical Advisor will work under the guidance of the NSCCC and the National Climate Change Office of Water Resources and Environment Agency (WREA), to ensure the effective implementation of the project work plans and enhance national ownership and results. The Climate Change Advisor will work closely with relevant government agencies, primarily WREA, the Ministry of Agriculture (MAF) and the Sector Working Groups, providing technical, operational and strategic advice, and relevant capacity development services. His/her work will include capacity building and institutional strengthening activities with the Climate Change Office and the Sector Working Groups as they develop the National Strategy on Climate Change. S/he will provide technical and strategic inputs on climate change within the key government fora. Finally, s/he will also provide technical assistance to the Government to develop the SNC.

The Climate Change Technical Advisor will also work closely with the UNDP/UNEP Environment Unit team to develop a climate change action programme and oversee its implementation. S/he will identify opportunities for partnership building with donors, private sector and other actors in the field of climate change mitigation and adaptation. The Advisor will advise on climate change -related resource mobilization, particularly available carbon financing options including the MDG Carbon Facility. S/he will also provide technical advisory services on a wide range of climate change related issues.

Activities will include:

- § Strategic guidance and advice to the Government of Lao PDR to develop a comprehensive and consolidated response to climate change challenges , including the National Strategy on Climate Change
- § Provision of technical, capacity building and institutional support to the Government to develop the Lao PDR SNC, including results based management and reporting
- § Formulation of strategies, programme and projects related to climate change and facilitation of their implementation
- § Creation of strategic partnerships and implementation of resource mobilization strategy related to the climate change programme

**Qualifications:**

- § A master's degree in Environmental Economics, Policy, Climate Change Science or related social science fields
- § A minimum of seven (7) years of work experience in strategy formulation and management, and advisory capacity in the areas of climate change.
- § Proven professional experience and sound technical knowledge on Climate Change, including experience in the development of greenhouse gas inventories, and vulnerability and adaptation analysis.
- § Track record of successful capacity building and institutional strengthening activities with the public sector.
- § Experience with GEF Programme formulation and management, or experience in environmental financing, is desirable.
- § Working experience with UNDP, other UN agencies, international organizations and private sector in the relevant field is an advantage.

- § Work experience in and familiarity with Lao political context will be an advantage.
- § Excellent command of written and spoken English. Knowledge of Lao will be an asset.

#### **V - Local/National Consultant(s)**

National consultant(s) will be recruited to work full-time with the Project Team and the Working Groups, as well as providing support to the International Technical Advisor when required. The National Consultant(s) will assist in general project management, the review of literature/documents, preparation of GHG inventory, vulnerability and mitigation assessments and SNC, among others.

Reporting to the Project Manager, the local climate change consultant will:

- § Provide assistance and support to the project team, Working Groups, and international Technical Advisors in project activities;
- § Assist in planning, organising and conducting of trainings and workshops in Lao language;
- § Provide translation when needed by the project ;
- § Prepare the work plan and technical reports in Lao language;
- § Assist in work carried out for specific technical areas/outputs of SNC project .

#### **Qualifications:**

- § Postgraduate degree or equivalent in relevant natural/environmental science or engineering field;
- § A minimum of 2 years work experience in climate change or environmental related projects
- § Familiarity with the UNFCCC policies and processes would be an asset;
- § Experience in GEF-funded development projects would be an asset;
- § High level of English proficiency both written and spoken ;
- § Excellence in communication and interpersonal skills. Results -oriented, sound judgment, flexibility and adaptability ;
- § Willingness to work with government counterparts and in a team with different cultural background.

Women are strongly encouraged to apply.

## **Terms of reference for scoping and implementing the V&A component of the Second National Communication**

These generic terms of reference for the preparation of the V&A studies identify the basic set of activities that the International Climate Change Technical Advisor (see ToRs above) will be responsible for under the supervision of the Project Manager. It is important to note that these generic terms of reference do not intend to limit the work of the expert but to guide countries on the general profile of the V&A expert and on the activities generally expected to be carried out.

### **Activities**

Taking into consideration gender issues in climate change, the V&A expert/consultant should be responsible for ensuring that the following set of activities is carried out. Emphasis on different activities will depend on the scope of the work already described in the SNC project document and/or on the specific activities the V&A expert would be assigned to.

### **Policy and institutional issues**

1. Identify the key policy issues the V&A study of the SNC project aims to address, e.g.,
  - a. to scope the scale of risks associated with projected climate change;
  - b. to aid in the identification of priorities for adaptation;
  - c. to support the development of a national adaptation strategy.
2. Identify the expected output of the V&A study of the SNC project on the basis of the project document, e.g.,
  - a. impacts assessment at the sectoral level for the given priorities identified in the project document;
  - b. a national adaptation strategy, including policies, programs and projects.
3. Develop a clear strategy to link the V&A outputs to national development planning. This would include, among others:
  - a. assessment of institutional arrangements/stakeholders engagement required to facilitate linking the outcome of the V&A studies to sectoral or national planning;
  - b. framework for assessing how the above linkage can be monitored and measured in the short and long terms, for instance through the development of practical indicators.

### **Technical issues**

#### ***Scope of the V&A study***

4. Elaborate on the scope (geographic, thematic, sectoral coverage, time horizon) of the V&A study, e.g.,
  - a. designing a strategy to build on but advance what was done within NAPA project;
  - b. elaborating on the scope of studies to address sectors/regions not covered by NAPA, sectors/regions identified as sensitive/vulnerable to climate change, as per the SNC project proposal;
  - c. preparing a detailed work plan for each of the study to be carried out, including a strategy to involve the relevant stakeholders, timeline, etc.;
  - d. designing a strategy, as applicable, to link the V&A studies with previous and ongoing related projects/activities (e.g., land degradation, biodiversity, international waters) .

#### ***Methodological framework***

5. Elaborate on the overall methodological framework for the V&A study as per the project document and in consultation with the Project Manager. In doing so, the V&A expert should ensure that:
  - a. The proposed methodological framework is the most appropriate given the policy questions to be addressed, the characteristics of the study (e.g., sectoral focus, spatial and temporal scales, stakeholders involved, and data requirement, etc.), and data availability;
  - b. In-country expertise required for such a methodological framework is available. If needed, the V&A expert should develop a strategy to address technical capacity gaps. For instance, by exploring the possibility of applying another framework in which more in-country expertise exists, or by designing a training/technical backstopping strategy, etc.

### ***Scenarios development***

6. Identify the types of scenarios required to conduct the V&A assessment, e.g., climate, socio-economic, adaptive capacity, technology, land-use and land-cover.
7. Identify the temporal and spatial resolution needed for these scenarios (e.g., national, sub-national, watershed, community, farm level, multi-decadal average, annual, monthly, daily, mean conditions, extreme events, etc.). In doing so, the expert should justify the choices.
8. Develop the strategies for developing such scenarios, e.g., model-based, expert judgment, etc.

In the preparation of the scenarios development strategy, the expert should assess the feasibility of the scenario needs and the methods for developing these scenarios, given the characteristics of the studies, and data availability. For instance, the expert would be expected to advise on alternative options to running regional climate models or other resource intensive and time consuming exercises. The V&A expert would also assess whether there is enough in-country expertise to develop such scenarios and/or identify options to address the needs for additional expertise.

### ***Sectoral assessment (to be considered by each of the sectors to be covered in the V&A study)***

9. Elaborate on the methods and tools, as per the project document, chosen to undertake sectoral assessments, e.g., numerical models, elicitation of expert views, stakeholder consultations, focus groups, etc. In doing so, the expert will advise on any adjustments needed to the options identified in the project document.
10. Provide justifications for the selection of the methods/tools considering the research questions, characteristics of the study, and requirements of data and technical expertise of these methods/tools.
11. Assess in-country expertise required to apply the selected methods/tools and prepare training/technical backstopping strategy as required.
12. Develop a strategy to integrate findings from sectoral assessment, as needed. For instance, by applying an integrated model, synthesizing sectoral information, etc.

### **Technical assistance needs**

13. Develop a technical backstopping/training strategy to strengthen the national capacity needed to carry out the different V&A studies. This would include details on the type of support needed (training courses on particular methodological frameworks/tools, guidance material, technical documents and good practice) and the timeline for such support.

## Appendix F: Total Budget

<b>Award ID: 00042082</b>
<b>Award Title: PIMS 2945 CC EA</b>
<b>Project ID: 00048165</b>
<b>Project Title: Lao PDR Second National Communication to UNFCCC</b>
<b>Implementing Partner: Water Resources and Environment Administration (WREA)</b>

OUTPUTS (and corresponding indicators)	RESPONSIBLE PARTY	PLANNED BUDGET		PLANNED BUDGET					
		Source of Funds	Budget Code	Budget Description	Year 1 (US\$)	Year 2 (US\$)	Year 3 (US\$)	Year 4 (US\$)	Total Budget (US\$)
1. National circumstances	WREA	GEF Trustee	71300	National consultants	3,000	2,000	-	-	5,000
			71600	Travel	200	2,800	-	-	3,000
			72500	Supplies	200	1,800			2,000
			74500	Miscellaneous	200	1,800	-	-	2,000
				<b>Sub-total 1</b>	<b>3,600</b>	<b>8,400</b>	-	-	<b>12,000</b>
2. National greenhouse gas inventories	WREA	GEF Trustee	71100	International ALD	-	20,000	16,000	-	36,000
			71300	National consultants	-	13,500	3,500	-	17,000
			71600	Travel	-	10,000	7,000	-	17,000
			72500	Supplies	-	2,000	1,000	-	3,000
			72800	IT Equipment	-	4,000	-	-	4,000
			74200	Audio visual & Print Prod Costs	-	800	5,200	-	6,000
			74500	Miscellaneous	-	2,000	1,000	-	3,000
				<b>Sub-total 2</b>	-	<b>52,300</b>	<b>33,700</b>	-	<b>86,000</b>
3. Programmes containing measures to facilitate adequate adaptation to climate change	WREA	GEF Trustee	71100	International ALD	-	12,500	17,500	-	30,000
			71300	National consultants	-	13,600	20,400	-	34,000
			71600	Travel	-	7,000	3,000	-	10,000
			72500	Supplies	-	1,500	1,500	-	3,000
			72800	IT Equipment	-	4,000	-	-	4,000
			74200	Audio visual & Print Prod Costs	-	700	4,300	-	5,000

			74500	Miscellaneous	-	1,500	1,500	-	3,000
				<b>Sub-total 3</b>	-	<b>40,800</b>	<b>48,200</b>	-	<b>89,000</b>
4. Programmes containing measures to mitigate climate change	WREA	GEF Trustee	71100	International ALD	-	-	10,000	5,000	15,000
		GEF Trustee	71300	National consultant	-	1,500	6,500	2,000	10,000
		GEF Trustee	71600	Travel	-	-	8,000	4,000	12,000
		GEF Trustee	72500	Supplies	-	-	5,000	1,000	6,000
		GEF Trustee	72800	IT Equipment	-	3,000	-	-	3,000
		GEF Trustee	74200	Audio visual & Print Prod Costs Supplies	-	-	-	5,000	5,000
		GEF Trustee	74500	Miscellaneous	-	-	1,500	1,000	2,500
				<b>Sub-total 4</b>	-	<b>4,500</b>	<b>31,000</b>	<b>18,000</b>	<b>53,500</b>
5. Other relevant information (research and systematic observation, technology transfer, education and public awareness, capacity building)	WREA	GEF Trustee	71300	National consultants	-	2,500	7,500	-	10,000
		GEF Trustee	71600	Travel	-	400	1,100	-	1,500
		GEF Trustee	72500	Supplies	-	400	1,100	-	1,500
		GEF Trustee	74500	Miscellaneous	-	250	750	-	1,000
				<b>Sub-total 5</b>	-	<b>3,550</b>	<b>10,450</b>	-	<b>14,000</b>
6. Constraints & gaps; related financial, technical, & capacity needs	WREA	GEF Trustee	71300	National consultant(s)	-	-	3,000	3,000	6,000
		GEF Trustee	71600	Travel	-	-	500	500	1,000
		GEF Trustee	72500	Supplies	-	-	350	350	700
		GEF Trustee	74200	Audio visual & Print Prod Costs	-	-	400	400	800
		GEF Trustee	74500	Miscellaneous	-	-	250	250	500
				<b>Sub-total 6</b>	-	-	<b>4,500</b>	<b>4,500</b>	<b>9,000</b>
7. Compilation, production of communication, its translation and dissemination	WREA	GEF Trustee	71100	International ALD	-	-	-	11,000	11,000
		GEF Trustee	71300	National consultants	-	-	-	6,000	6,000
		GEF Trustee	71600	Travel	-	-	-	1,500	1,500
		GEF Trustee	72100	Contractual service-companies	-	-	-	2,000	2,000
		GEF Trustee	72500	Supplies	-	-	-	1,000	1,000
		GEF Trustee	74200	Audio visual & Print Prod Costs	-	-	-	3,000	3,000
		GEF Trustee	74500	Miscellaneous	-	-	-	500	500

				<b>Sub-total 7</b>	-	-	-	<b>25,000</b>	<b>25,000</b>
8. Project management	WREA	GEF Trustee	71300	Local consultant	-	-	-	-	-
			71400	Service Contracts-Individuals	5,460	21,840	21,840	16,380	65,520
			71600	Travel	650	2,350	2,600	2,200	7,800
		GEF Trustee	72400	Communication	400	1,600	1,600	1,200	4,800
		GEF Trustee	72500	Supplies	588	2,312	2,400	2,000	7,300
		GEF Trustee	73400	Rental & Maint of other equip	400	1,600	1,600	1,200	4,800
		GEF Trustee	73500	Project implementation support services	375	1,000	1,500	1,125	4,000
		GEF Trustee	74100	Professional services	-	300	6,000	4,000	10,300
	UNDP	TRAC	74100	Professional services	5,000	-	-	-	5,000
		GEF Trustee	74200	Audio visual & Print Prod Costs Supplies	692	2,768	2,768	2,076	8,303
		GEF Trustee	74500	Miscellaneous	309	1,236	1,208	924	3,677
				<b>Sub-total 8</b>	<b>13,874</b>	<b>35,005</b>	<b>41,516</b>	<b>31,105</b>	<b>121,500</b>
9. Addressing climate change challenges	WREA / UNDP	TRAC	71100	International ALD	-	117,500	117,500	96,500	331,500
				<b>Sub-total 9</b>	-	<b>117,500</b>	<b>117,500</b>	<b>96,500</b>	<b>331,500</b>
				<b>Total I : (1+2+3+4+5+6+7+8+9)</b>	<b>17,474</b>	<b>262,055</b>	<b>286,866</b>	<b>175,105</b>	<b>741,500</b>
11. Government Contributions (in-kind)	WREA	WREA		<b>National Project Office</b>	11,470	45,870	45,860	34,410	137,610
				<b>Attendance of personnel meetings</b>	75	330	360	255	1,020
				<b>Contributions from other government staff</b>	1,500	6,000	6,000	4,500	18,000
				<b>Total II</b>	<b>13,045</b>	<b>52,200</b>	<b>52,190</b>	<b>39,165</b>	<b>156,630</b>
				<b>Grand total: (I + II)</b>	<b>30,519</b>	<b>314,255</b>	<b>339,056</b>	<b>214,270</b>	<b>898,130</b>



**Calculation for Government Contributions (in-kind)**

Items	Units	Unit Cost	No. units			Value of contributions			Total value
			US\$	Year 1	Year 2	Year 3	Year 1	Year 2	
<b>National Project Office</b>									
1 National Project Board Executive	person month	700	6	6	6	4,200	4,200	4,200	12,600
2. Project Board beneficiaries	person month	1,400	6	6	6	8,400	8,400	8,400	25,200
3. Project Manager	person month	600	8	8	8	4,800	4,800	4,800	14,400
4. Project Support Staff	person month	500	8	8	8	4,000	4,000	4,000	12,000
5. Working Group Team Leader	person month	500	6	6	6	3,000	3,000	3,000	9,000
6. Technical staff Working Group member	person month	500	6	6	6	3,000	3,000	3,000	9,000
7. Office space rental	month	1,000	12	12	12	12,000	12,000	2,000	36,000
8. Utilities/building maintenance etc.	month	540	12	12	12	6,480	6,480	6,480	19,440
<b>Attendance of personnel meetings</b>									
9. Project Board Meeting	person day	15	10	10	10	150	150	150	450
10. Project Management meeting	person day	15	12	12	12	180	180	180	540
<b>Contributions from other Government staff</b>									
11. Attendance at meetings/workshops etc.	person day	15	200	200	200	3,000	3,000	3,000	9,000
12. contribution to documents etc.	person day	15	200	200	200	3,000	3,000	3,000	9,000
<b>Total:</b>						<b>52,210</b>	<b>52,210</b>	<b>2,210</b>	<b>156,630</b>

Note:

1. National Project Board Executive (one person) is at DG level I, assumed to be working on project for 6 months per year
2. Project Board beneficiaries (Two persons) are at Director of Ministry's Cabinet Office Levels working on project for 6 months per year
3. Project Manager (one person) is at Director level, as sumed to be working on project for 8 months per year
4. Project Support staff (4-5 persons) at different levels complementing the PM work for 8 months per year
5. Working Group Team Leaders (5 persons) are at different levels, assumed to be working on project for 6 months per year
6. Technical staff Working Group members (20 -30 persons), assumed to be working on project for 6 months per year
9. Assumptions: 2 Project Board meetings per year, allow one day per meeting, 8 persons per meeting
10. Assumptions: 1 Project team meeting per month, 0.5 day per meeting, 12 persons per meeting
11. Assumptions: 5 workshops/trainings per year, 30 persons, 2 days@\$15
12. Assumptions: 5 documents per year, 5 key departments for 5 days@15

## **Appendix G: Summary report of the self-assessment exercise**

### **1. Description of the Process and Approach Adopted for the Stocktaking Exercise**

The objectives of the stocktaking exercise are to: (1) review and assess work carried out under previous climate change enabling activities; (2) identify areas of synergies with other on-going enabling activities and other relevant international conventions; and (3) identify lessons learned from the FNC, including technical issues and process/arrangement experiences that could provide improved practises for the preparation of the SNC.

The stocktaking exercise was carried out by a multidisciplinary working group lead by the WREA and included technical staff from the Ministry of Public Works and Transports (MCTPC); the Ministry of Energy and Mines (MEM); the Ministry of Agriculture and Forestry (MAF); the Ministry of Industry and Commerce (MIC), the Department of Statistics (DOS), the Ministry of Public Health (MOH), and the Lao National Mekong Committee (LNMC).

The stocktaking exercise consisted of the following main activities:

1. Survey of relevant reports and technical studies (GHG inventory, mitigation and vulnerability adaptation);
2. Survey of previous climate change related activities;
3. Identification of gaps in previous studies and activities and recommendation for new studies;
4. Prioritisation of activities for the SNC; and
5. Identification of links and synergies with related projects and programmes, and activities under other international conventions.

The stocktaking exercise was conducted through consultations with national stakeholders. Both individual interviews and group brainstorming sessions were conducted with members of relevant government and non-government organisations. The interviews used semi-structured questionnaires that included both closed and open-ended questions. Stakeholders were consulted on the following: (i) knowledge and understanding of climate change issues; (ii) severity of climate change impacts in the Lao PDR; (iii) sectoral impacts of climate change in the Lao PDR; (iv) integration of climate change into policies, strategies, plans or activities; (v) activities implemented to mitigate or adapt to climate change; and (vi) steps to be undertaken by government to address climate change issues in the Lao PDR. A total of 21 questionnaires were administered.

### **2. Main Outcomes of the Stocktaking Exercise**

#### **2.1 National Circumstances**

With the exception of the basic geophysical features, the national circumstances of the Lao PDR have changed since the completion of the FNC in the year 2000. Development priorities, objectives and circumstances need to be updated to provide a more accurate background on the basis of which climate change and its impacts may be addressed.

Although the range of national statistics available has been expanded, there are still gaps in data availability and time series. In addition, uncertainties with regards to data collection methodologies and data reliability remain. Increased coordination between stakeholders to be involved in the formulation of the SNC will be necessary to ensure smooth data exchange and availability.

#### **Priorities:**

1. Update all sectoral plans and studies relevant to the formulation of the SNC, including national development and poverty eradication plans and strategies;
2. Update information on the national circumstances, including geographical characteristics (climate, forests, land use, other environmental conditions, etc.), population (growth rates, distribution, density etc.), economy (energy, transport, industry, mining, tourism, agriculture, fisheries, waste, services etc.), education (including scientific and technical research);
3. Collect and analyse existing institutional arrangements for continuous preparation of national communications.

#### **2.2 Greenhouse Gas Inventory**

The FNC reported an inventory of GHG emissions by sources and removals by sinks prepared for the base year 1990. The Lao PDR's national greenhouse gas inventory covered four sectors: (1) energy, (2) land use change and forestry, (3) agriculture and (4) waste. A three-year average of activity data for the sectors of agriculture, and land use change and forestry, was calculated (1988, 1989, 1990), whereas data for the calendar year 1990 was used for the sectors of energy and waste. Industrial processes were not considered as the existing industrial plants such as cement plants and pulp and paper mill had not been built in 1990. Lack of data prevented the estimation of emissions for solvent and other product use. The greenhouse gases covered in the inventory were carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), carbon monoxide (CO) and nitrous oxides (NO<sub>x</sub>). The inventory was conducted using activity data collected by government agencies, and when available, reports published by international organisations operating in the Lao PDR. No emission projections were conducted beyond the base year because of constraints related to data availability and uncertainties with regards to future development scenarios. Data availability, data reliability, and the absence of local emissions factors and the capacity and resources to develop them, remain major obstacles to the preparation of the national GHG inventory. These barriers include:

1. Absence of any national energy balance;
2. Absence of reliable time-series for agriculture, with significant yearly variations in production and systematic annual statistics reported only since 1995;
3. Data gaps in statistics for industrial processes, as the sector has only developed in recent years. Reporting and recording has not kept pace with industrial growth; absence of reliable data for an estimated 26,000 small medium enterprises;
4. Absence of reliable data on land use change and forestry, forest inventory, forest cover, and deforestation trends;
5. Absence of data in the waste sector (solid waste, domestic wastewater and human sewage), in particular outside of the capital city;
6. Absence of national emission factors, and low national capacity to develop them;
7. Absence of a national GHG emissions database and registry; GHG inventories conducted on an adhoc basis, i.e., for the purpose of national communications under the UNFCCC;
8. Limited in-country human and technical resources for conducting greenhouse gas inventory.

**Priorities:**

1. Strengthen human, technical and institutional capacities to conduct a national GHG inventory;
2. Review the 1990 GHG inventory for gaps in methodologies and data;
3. Determine which key source categories are the major contributors to the GHG in terms of absolute levels and trends in emissions;
4. Select a methodology of the IPCC Guidelines that is relevant for the Lao PDR and a GHG inventory year; taking into consideration existing technical capacity and data constraints ;
5. Estimate in units of mass, by sources and removals by sinks, anthropogenic emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O);
6. Assess the level of uncertainty associated with inventory data;
7. Explore cost-effective ways to develop country-specific emission factors;
8. Explore opportunities and arrangements for data management systems for the preparation of national GHG inventories on a continuous basis.

### **2.3 Programmes Containing Measures to Facilitate Adequate Adaptation to Climate Change**

The FNC did not discuss steps taken or envisaged by the Lao PDR to adapt to climate change. The formulation of the FNC constituted the first exposure of policy makers and government staff to climate change issues in the Lao PDR. At the time, it was argued that broader dissemination to raise awareness and additional capacity building would be required for the country to develop a national perspective on adaptation to climate change. A study specifically addressing vulnerability to climate change was conducted in January 2005 by the Asian Disaster Preparedness Centre (ADPC) and the World Conservation Union (IUCN). The study examined household vulnerability to floods and existing coping strategies in the southern province of Attapeu. The recommendations included building local capacity for assessing climate change risk and vulnerability.

The formulation of the NAPA constitutes the country's first attempt to assess the impacts of climate change on national development. The project started in 2004 and is expected to be completed by the end of the year 2008. The main objective of NAPA is to develop a country driven program of action for adaptation to address immediate and urgent needs related to current and projected adverse effects of climate change in the four key sectors of (1) agriculture, (2) forest, (3) water and water resources, and (4) public health. Since the Lao PDR relies on agricultural, forest and water resources, the negative

impacts of climate change would hinder the social and economic development of the country. The preliminary findings of the Lao PDR's NAPA are as follows: (1) the country's adaptive capability to climate change is limited, (2) there are gaps in information and knowledge with regards to vulnerability to climate change in the four priority sectors, and (3) there is limited national technical capacity and experience with respect to adaptation to climate change.

While the Lao PDR's NAPA has conducted some sectoral vulnerability assessments, the current understanding of climate change effects on the country remains limited, in particular, with regards to baselines climatologies and climate change scenarios. Thus, there is a need for using methods and tools which may provide better understanding of the country's vulnerability, including qualitative and predictive models, empirical studies, expert judgment, etc. In addition, there are opportunities for downscaling global circulation models to regional circulation models used in conjunction with integrated models such as MAGICC<sup>1</sup>- (SCENGEN<sup>2</sup>) and PRECIS<sup>3</sup> (global and regional climate modeling systems that can help in generating high-resolution climate change information that can be used in impact, vulnerability and adaptation studies) towards more accurate vulnerability assessments, than are yet available in the Lao PDR.

**Priorities:**

1. Strengthen human, technical and institutional capacities to conduct a climate change vulnerability assessment;
2. Compile and analyse the available records on climate-related disasters;
3. Generate appropriate (low-cost, user-friendly and flexible) climate change scenarios for the Lao PDR;
4. Carry out more advanced sectoral vulnerability and adaptation assessments in agriculture, forest, water and water resources, and human health, in particular using regional circulation models;
5. Identify additional long-term high priority adaptation strategies and measures, resulting from improved understanding of climate change effects on the country.

## **2.4 Programmes Containing Measures to Mitigate Climate Change**

The FNC discussed greenhouse gas mitigation strategies for the Lao PDR in perspective with its national circumstances, and the capacity of its economy to undertake mitigation measures without negative impacts on growth. Mitigation options were identified based on the level of technology available in the country, national development goals and simplified cost-benefit analysis. The GHG mitigation strategy covered the following sectors: (1) energy, (2) transport, (3) agriculture, and (4) forestry. The FNC argued that the timeline and likelihood of the mitigation options being implemented was dependent on government priorities, costs constraints on the economy, technical capability, and donor funding. Mitigation options for the energy sector were classified into three broad categories: energy conservation and efficiency, advanced or renewable energy sources, and structural changes in consumption. Although large hydropower appeared as a low cost electricity source, the cost of building a transmission and distribution network in an essentially mountainous country justifies decentralised options using micro-hydro or renewable energy sources. In the transport sector, the FNC discussed the development and improvement of public transport to mitigate impacts associated with the growth of privately owned vehicles. In the forestry sector, conservation and sustainable management of forest areas, and afforestation were mitigation options that correspond with already set government priorities. The FNC argued for wider participation at the grassroots level to promote village forest management and curb shifting cultivation.

In addition, the FNC presented six project concepts for GHG mitigation: (1) reducing CO<sub>2</sub> emissions through the use of Compact Fluorescent Lights<sup>4</sup> (CFL) in government buildings and the commercial sector, (2) disseminating Improved Cook Stoves (ICS) in rural areas, (3) promoting biogas use, (4) decentralised energy supply through Solar Home Systems (SHS) in rural households, (5) small-scale hydropower in combination with electric Cook Stoves, and (6) adoption of four-stroke engine for two

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<sup>1</sup> MAGICC - A Model for the Assessment of Greenhouse-gas Induced Climate Change

<sup>2</sup> SCENGEN-A Regional Climate SCENario GENerator

<sup>3</sup> Providing REgional CLimates for Impacts Studies (PRECIS) - A regional climate modeling system

<sup>4</sup> Compact fluorescent lights can be produced from lamps or bulbs. The compact fluorescent bulbs (CFB) use 75 percent less energy to produce the same amount of light. An 18-watt CFB can replace a 100-watt incandescent. They last ten times longer. The life of a CFB is up to 10,000 per bulb, compared to less than 1,000 hours for an incandescent.

wheelers. However, the FNC did not carry out any estimates of future emission trends or quantify the greenhouse gas reduction potential of the proposed mitigation options.

As a signatory of the Kyoto Protocol, the Lao PDR may host Clean Development Mechanism project activities that mitigate greenhouse gases and provide national sustainable development benefits. WREA acts as the Designated National Authority and is in the process of developing assessment and approval procedures with the support of international organisations. As a developing country, Lao PDR is not required to meet any emission reduction targets. However, CDM project activities may result in both emission reductions and local social, environmental and economic benefits.

**Priorities:**

1. Increase awareness of stakeholders of appropriate mitigation technologies and practises;
2. Strengthen human, technical and institutional capacities to conduct a national mitigation assessment for key sources and sinks of GHGs;
3. Formulate and prioritise programmes containing measures to mitigate climate change;
4. Assess potential for Clean Development Mechanism project activities;
5. Develop a projection of GHG emissions for each of the sectors covered by the National GHG inventory and based on national development plans and priorities, taking into account national sustainable development objectives;
6. Prepare a national GHG mitigation plan. In the later case of the energy sector, the mitigation plan will be in line with national energy plans, policies and priorities.

**2.5 Other Information Considered Relevant to the Achievement of the Objective of the Convention**

**Priorities:**

1. Increase the integration and mainstreaming of climate change issues into national development policies;
2. Increase the awareness of climate change issues among policy makers, non-government organisations, the private sector, academic institutions and the general public;
3. Improve regional and international transfers of appropriate adaptation and mitigation technologies;
4. Disseminate adaptation and mitigation technologies to a broad range of stakeholders.

**2.6 Constraints and Gaps, and Related Financial, Technical and Capacity Needs**

**Priorities:**

1. Assess constraints and gaps associated with the preparation of national communications on a continuous basis;
2. Compile information on financial resources and technical support provided by government and international institutions for activities relating to climate change;
3. Assess financial requirements for the implementation of activities to meet the objective of the Climate Change Convention, including the preparation and improvement of national communications on a continuous basis (Note: quoted from Paragraph 49, Page 28, Manual for the Guidelines on NC from non-Annex I Parties);
4. Propose adaptation and mitigation projects for financing (specific technologies to be used, materials/equipment required, techniques or practises).

**3. Other findings from the self-assessment exercise**

Institutional arrangements:

- Ø Proper management arrangements, implementation procedures, and monitoring mechanisms help build accountability, transparency and participation ;
- Ø Cooperation with regional neighbours provides opportunities for exchanging information and experiences in the area of climate change, as do strengthened links with international research institutions which are able to provide advance scientific and technical expertise;
- Ø There is a need to confirm and make official the institutionalisation of the frameworks set in line with the national communications preparation process, after the government approval of the National Communications Report;
- Ø The duration of the preparation of the periodic national communications to the UNFCCC depends largely on the capability, commitment, and diligence of the relevant institutions that are responsible for, among others, monitoring/tracking the status of the implementation of climate change mitigation and adaptation strategies and plans, and in documenting and disseminating the required information.

Climate change awareness:

- Ø Awareness raising of climate change at the highest policy-making levels may increase political willingness to tackle the issue. Low awareness levels limit the ability of policy-makers to take on a leadership role in climate related activities and hinder their ability to support climate change mainstreaming or to develop climate change policies;
- Ø Climate change education and awareness raising activities need to reach out to the general public and affected communities so as to promote greater national knowledge of the issue.

Participation and consultation:

- Ø Broad participation of stakeholders from the early stages of consultation to project implementation contributes to national ownership and ensures future collaboration from involved institutions towards the preparation of national communications on a continuous basis;
- Ø Transparent, participatory and simplified coordinating mechanisms are necessary to allow for the meaningful contributions of the largest variety of stakeholders.

Technical assistance and capacity building:

- Ø Capacity building for local technical staff involved in climate-related activities is a prerequisite for successful project implementation as existing skills may be ill-adapted;
- Ø Capacity building can be effective if it has immediate practical relevance and covers a broad range of methods and approaches, such as hands-on training, technical workshops, direct application of methods and tools learned;
- Ø Substitution of local capacity by international capacity is unsustainable and financially costly;
- Ø Technical support from experienced and specialised consultants is necessary to guide staff throughout the implementation process. These consultants need to be involved with staff in the implementation of planned activities and not just limit their support to planning tasks;
- Ø Limited financial, technical, human and institutional resources constrain the formulation and implementation of mitigation and adaptation activities. Funding by international organisations remain necessary to the successful implementation of the UNFCCC and other climate change initiatives.
- Ø In order to ensure sustainability and continuity of the national communications preparation process, the capacity of the relevant institutions involved should be continuously updated.

### **Institutions and Stakeholders Consulted**

<b>Name of institutions / stakeholders consulted</b>	<b>Stakeholder interests, official position or mandate</b>	<b>Reasons for inclusion</b>	<b>Role in the self-assessment process</b>
Water Resources and Environment Administration (WREA)	Focal point for GEF, UFCCC, UNCCBD, UNCCD. Designated National Authority for CDM. Water and Environmental Management and Policy -making.	Implementing Partner for FNC, NAPA, NCSA.	Preparation of SNC project proposal.
Ministry of Public Works and Transports	Communications, public works and transports.	Flood management, transport management.	Consultation.
Ministry of Energy and Mines (MEM)	Energy and mining sectors, and national public electricity utility.	Implementation of GHG mitigation activities.	Consultation. Provision of data.
Ministry of Agriculture and Forestry (MAF)	Agricultural and forestry sectors. Protected areas.	Implementation of GHG mitigation activities, and adaptation to climate change.	Consultation. Provision of data.
Ministry of Industry and Commerce (MIC)	Industry and commerce.	Implementation of GHG mitigation activities.	Consultation. Provision of data.
National Statistics Centre (NSC)	National statistical information.	National data centre.	Consultation. Provision of data
Ministry of Public Health (MPH)	Health.	Implementation of climate change adaptation activities.	Consultation.
Netherlands Development Organisation (SNV)	International development non -government organisation.	Implementation of GHG mitigation activities. Advisor of CDM DNA.	Consultation.
Village Off-Grid Promotion & Support Office (VOPS)	Off-grid electrification using mainly renewable technologies.	Implementation of GHG mitigation activities.	Consultation.
World Conservation Union (IUCN)	International environmental non -governmental organisation.	Implementation of climate change adaptation activities.	Consultation.
Japan International Cooperation Agency (JICA)	Implementing body for Japanese international cooperation.	Implementation of GHG mitigation activities (energy, waste, agriculture). Preparation of technical studies and master plans.	Consultation. Provision of data.
Lao National Mekong Committee (LNMC)	Coordinates Mekong River Commission programmes at the national level.	Implementation of climate change adaptation activities.	Consultation.
Department of National Land Use Planning and Development	Land use planning and classification.	Formulation and implementation of guidelines regarding land use and management.	Consultation.
National University of Laos (NUoL)	National academic institution.	Education and research in GHG mitigation activities, and adaptation to climate change.	Consultation.
Ministry of Foreign Affairs (MOFA)	Coordination between Lao government and international donors.	Oversees international cooperation.	Consultation.
National Tourism Administration (NTA)	Tourism.	Establishment and implementation of guidelines for tourism activities, including ecotourism.	Consultation.

## Appendix H: GEF Operational Focal Point endorsement letter



Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

### Prime Minister's Office

Science Technology and Environment Agency (STEA)

Tel: (856-21) 218712

Fax: (856-21) 213472

Date: 9 January 2007

To: Ms. Sonam Yanchen Rana  
Resident Representative, UNDP Lao PDR  
Kaysone Phomvihane Avenue, P.O Box: 345, UNDP Vientiane, Lao PDR

**Subject: Endorsement letter of GEF National Focal Point for the proposal entitled  
"Enabling Activities for the Preparation of the Lao PDR's Second National  
Communication to the UNFCCC"**

Dear Ms. Sonam Yanchen Rana

In my capacity as the Global Environment Facility (GEF) Operational Focal Point for Lao PDR, I hereby endorse the enclosed proposal to access GEF funding to develop a Second National Communication (SNC) to the UNFCCC through the United Nations Development Program (UNDP).

Lao PDR considers the SNC to be an important and valuable exercise in our ongoing efforts to protect the global environment while working to achieve our national sustainable development goals.

Thank you very much for your kind cooperation.

Yours Sincerely,

Xayaveth Vixay  
GEF Focal Point for Lao PDR

Date 09 JAN 2007	
ACTION	INFO
REG	<i>[Signature]</i>
ERR (PI)	
ERR (ED)	
PRO	<i>Saha</i>
ADM	
FIN	
EC	
ACTION TAKEN	
FILE: LAO/02/003	

Prime Minister's Office, Science Technology and Environment Agency  
Sisavad Road, P.O Box: 2279, Vientiane, Lao PDR  
Tel: (856-21) 218712, Fax: (856-21) 213472



# Appendix I: UNFCCC Operational Focal Point endorsement letter



Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity  
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Prime Minister's Office  
Science Technology and Environment Agency

No. ....../STEA-PMO  
Vientiane Capital City, Date 22/03/2007

## Endorsement Letter

From: Mr. Khampadith Khammounheung  
UNFCCC Focal Point  
GEF Operational Focal Point  
P.O.Box: 7647  
Lao PDR  
Tel: Mob: (856-20) 2420851  
Fax: (856-21) 213472  
Email: [kkhampadith@yahoo.com](mailto:kkhampadith@yahoo.com) or [khampadith@gmail.com](mailto:khampadith@gmail.com)

To: Sonam Yangchen Rana  
Resident Representative  
UNDP/LAO PDR  
Kaysone Phomvihane Ave.  
P.O. Box: 345  
Vientiane, Lao PDR

Dear Madam Rama,

**Re: Project proposal for the preparation of Enabling Activities for the Preparation of the Lao PDR's Second National Communication to the UNFCCC**

On behalf of the Government of Lao PDR and, in my capacity as UNFCCC Focal Point and GEF Operational Focal Point, I hereby endorse the request of funding from the Global Environment Facility for the above mentioned project proposal, to be presented through the United Nations Development Programme.

In doing so, I express my agreement with the content of the project proposal and with its implementation arrangements.

We look forward to your kind consideration in this matter.

Sincerely,

Mr. Khampadith Khammounheung  
Department of Environment  
Science Technology and Environment Agency -STEA  
Vientiane, Lao PDR

Date: 22 APR 2007		
ACTION		INFO
	NR	
	DRR (P)	
	DRR (O)	
	PRO	
	Singha	
	ADM	
	FIN	
	ENV	
ACTION TAKEN :		
FILE: Project 00048165		

# Appendix J: Note Verbal of Ministry of Foreign Affairs



Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity  
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Ministry of Foreign Affairs  
Department of International Cooperation

No: 451 MOFA.DIC.05

## Note Verbale

The Ministry of Foreign Affairs of the Lao People's Democratic Republic presents its complements to the United Nations Development Programme and has the honor to inform you that the Government of Lao PDR has approved the project entitled "Second National Communication on Climate Change; SNC" for a period of 03 years.

The Ministry of Foreign Affairs avails itself of this opportunity to renew to the United Nations Development Programme of its highest consideration.

Vientiane, 28 December 2006



Ms. Sonam Yangchen Rana ✓  
UNDP Representative  
Vientiane, Lao PDR

Cc: Science Technology and Environment Agency, PMO  
Department of International Organization, MOFA

Date: 02 JAN 2007		
ACTION		INFO
	RR	✓
	DRR (P)	
	DRR (O)	
✓	PRO	Luha
	SRX	✓
	ADM	
	FIN	
	UNV	
ACTION TAKEN :		
FILE: Proj: 00048165		