Lao PDR REDD+ Readiness - State of Play

December 2012

IGES

Discussion Paper

No. FC-2012-05

Lao PDR REDD+ Readiness - State of Play

December 2012

IGES

Institute for Global Environmental Strategies

IGES

Discussion Paper

No. FC-2012-05

Institute for Global Environmental Strategies (IGES)
Forest Conservation Project
2108-11 Kamiyamaguchi, Hayama, Kanagawa 240-0115 Japan
Phone: +81-46-855-3830 • Facsimile: +81-46-855-3809
E-mail: fc-info@iges.or.jp

The aim of the IGES Forest Conservation Team is, through strategic research, capacity building and outreach, to contribute to the development of policies and instruments for the sustainable management and use of forest resources. IGES discussion papers are prepared for timely delivery to facilitate substantive discussion among policy makers and research communities.

Author: Taiji Fujisaki

Cover photos: Main: Girl carrying firewood, Luang Prabang Province;
Others: SUFORD site, Lao PDR.
© Kimihiko Hyakumura

Foreword

With the understanding that deforestation contributes to about 20 per cent of global anthropogenic greenhouse gas emissions, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) have been attempting to reach agreement on how developing countries can be supported and rewarded for protecting and enhancing the carbon stocks in their standing forests — a concept known as REDD+. For international negotiators to reach agreement on a global REDD+ mechanism presents but one challenge; one that is proving a slow and difficult process. Countries preparing to participate in REDD+ are faced with many others. Where deforestation rates have been persistently high over many years and where forest management policies have largely been ineffective at a national scale, reforming governance structures, regulatory controls and incentive systems to protect forest carbon stocks, including in a manner that is socially acceptable (i.e. acceptable to all major forest stakeholders), will not be easy. The global REDD+ mechanism will also require participating countries to project future forest carbon stock changes under a business-as-usual scenario, to monitor and report actual forest carbon stock changes, and to attribute these changes to drivers. As developing countries mostly have incomplete and inconsistent forest datasets, and as some have never conducted a proper forest inventory, this presents another set of difficult challenges.

The Institute for Global Environmental Strategies (IGES) is monitoring the development of national REDD+ systems in selected key REDD+ countries in the Asia-Pacific region. This work is generally based upon outputs produced through a REDD+-related project funded by the Ministry of Environment, Japan.

This report presents the results of a study on REDD+ readiness in Lao PDR, a country with forests of immense importance to its people and the globe, and one that has drawn attention from the international community for its REDD+ movement. I would like to congratulate the author and the Forest Conservation Team for succeeding in bringing together this report, which I anticipate will be useful to people working on REDD+ issues from local to international levels.

Hideyuki Mori

IGES President

December 2012

Acknowledgements

The author is grateful to a number of people who kindly shared information for this report, including Ms. Majella Clarke (SUFORD), Mr. Khamsene Ounkham (Department of Forestry / Lao PDR), Mr. Linthong Khamdy (Forest Inventory and Planning Division / Lao PDR), Mr. Somchay Sanonty (Forest Inventory and Planning Division / Lao PDR), Mr. Gabriel Eickhoff (CliPAD), Mr. Colin Moore (WCS), Mr. Anouxay Phommalath (SNV) and Dr. Kimihiko Hyakumura (Kyushu University). At IGES, Dr. Henry Scheyvens and Dr. Enrique Ibarra Gene, kindly provided their thoughts on an early draft of the report.

Any omissions and errors are entirely the responsibility of the author.

Acronyms and Abbreviations

ASEAN	Association of South East Asia Nations
CCBA	Climate, Community and Biodiversity Alliance
CIFOR	Center for International Forestry Research
CliPAD	Climate Protection through Avoided Deforestation
COP	Conference of the Parties
m3	cubic metre
DAFO	District Agriculture and Forestry Office
DBH	Diameter at Breast Height
DFRM	Department of Forest Resource Management
DDG	Deputy Director General
DG	Director General
DOF	Department of Forestry
DOFI	Department of Forest Inspection
EIA	Environmental Investigation Agency
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization (of the United Nations)
FCPF	Forest Carbon Partnership Facility
FFPRI	Forest and Forest Products Research Institute
FIM	Forest Information Management
FIP	Forest Investment Programme
FIPD	Forest inventory and Planning Division
FPIC	free prior informed consent
FPP	Forest Preservation Programme
FRDF	Forest Resource Development Fund
FS 2020	Forestry Strategy 2020
FSC	Forest Stewardship Council
FSIP	Forestry Strategy 2020 Implementation Promotion
GDP	Gross Domestic Product
GHG	Greenhouse gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
GOL	Government of Lao PDR

ha	hectare
IGES	Institute for Global Environmental Strategies
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
JNR	Jurisdictional and Nested REDD+
JPY	Japanese Yen
kfW	Kreditanstalt fur Wiederaufbau (German Development Bank)
Lao PDR	Lao People's Democratic Republic
LEAF	Lowering Emissions from Asia's Forests
LFNC	Lao Front for National Construction
LUP-LA	Land Use Planning and Land Allocation
MAF	Ministry of Agriculture and Forestry
MEM	Ministry of Energy and Mines
MOF	Ministry of Finance
MONRE	Ministry of Natural Resource and Environment
MPI	Ministry of Planning and Investment
MRV	Monitoring, Reporting and Verification
MWBP	Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme
NAFES	National Agriculture and Forestry Extension Service
NAFRI	National Agriculture and Forestry Research Institute
NCCO	National Climate Change Office
N.D.	not dated
NEC	National Environment Committee
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NGOs	Non Government Organization
NLMA	National Land Management Authority
NPA	National Protected Area
NSAP	National Strategy and Action Plan on Climate Change
NSCCC	National Steering Committee on Climate Change
NUOL	National University of Laos
NWFPs	Non-Wood forest products

ODA	Official Development Assistance
PAFO	Provincial Agriculture and Forest Office
PAREED	Participatory Land and Forest Management Project
PLUP	Participatory Land-use Planning
PSS	Profit Sharing System
RECOFTC	Center for People and Forests
REDD	Reducing Emissions from Deforestation and Forest Degradation
REDD+	Reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks
REL	Reference Emissions Level
RL	Reference Level
R-PIN	Readiness Programme Idea Note
R-PP	Readiness Preparation Proposal
RRI	Rights and Resources initiative
RS	Remote Sensing
SESA	Strategic Environmental and Social Assessment
SFM	Sustainable Forest Management
SIDA	Swedish International Development Agency
SMSA	Strategic Environmental and Social Assessment
SNC	Second National Communication
SNV	Netherland Development Organisation
SPC	Stakeholder Participation and Consultation
SPCP	Stakeholder Participation and Consultation Plan
SUFORD	Sustainable Forestry and Rural Development
tCO2	Tonnes of carbon dioxide
TFAP	Tropical Forest Action Plan
TORs	Terms of References
TWGs	Technical Working Groups
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USD	United States Dollar
WCS	World Conservation Society

WREA	Water Resources and Environmental Administration
WRI	World Resource Institute
WWF	World Wide Fund for Nature

Executive Summary

- Since the early 1990s, forest management in Lao PDR has shifted towards the conservation of forests, improvement of logging practice and forest rehabilitation. This shift is supported by policies / programmes on forest categorisation and demarcation, law enforcement and governance, sustainable forest management and forest regeneration and reforestation. However, forest boundaries and management plans have not yet been fully defined. In addition, the customary forest users and local communities are often in a weak position, with no enforceable rights over the forests they manage.

- The REDD+ concept is highly relevant to Lao PDR, which has a large per capita forest area, with relatively high per capita deforestation and forest degradation. Given the fact that annual emissions from deforestation and forest degradation are estimated to account for 72% of the country's total emissions, REDD+ could provide significant opportunities to protect ecosystem services and increase the revenues from the forest sector.

- Since 2007, Lao PDR has made efforts to develop its national REDD+ system. This includes submission of the R-PIN (2008) and the R-PP (2010) to the World Bank's FCPF. However, overall REDD+ readiness is still at an early stage. Outstanding challenges include formulation of the national REDD+ strategy, development of institutional arrangements, as well establishment of REL / RL, MRV and the safeguards monitoring system. Also there is an urgent need to establish a legal basis for REDD+ implementation. The Ministry of Agriculture and Forestry has started to revise the forestry legal framework to address issues of forest tenure and forest carbon rights / carbon use rights.

- The organisational framework for REDD+ readiness has evolved and national ownership of the REDD+ readiness progress appears to have grown. The multi-sectoral REDD+ Task Force was reformed in 2011 and now includes more state ministries and Lao civil society organizations. The REDD+ Office was set up within the Department of Forestry to support the Task Force and manage day-to-day REDD+ activities. However, the idea of REDD+ is new in Lao PDR, and the government is still moving towards the necessary multi-sectoral approach for REDD+ to have an impact on forest management and use. The administrative capacity of the organisational framework needs to be further developed to be in accordance with existing national and sub-national institutions and structures.

- While the government has tried to strengthen national ownership of REDD+ readiness, REDD+ readiness still relies largely on bilateral and multilateral support at both national and sub-national levels. Key support from donors include the World Bank's FCPF and Forest Investment Programme (FIP), CliPAD (GIZ-KfW), FSCAP (JICA, SIDA), PAREED (JICA), FIM (Japan) and SUFORD (Finland, World Bank). Given this variety of support, the government has an important role to play in ensuring coordination between donor activities and programmes in accordance with the government's policy and its involvement in the FCPF process.

- While the National Forest Inventory (NFI) was conducted during the 1990s, building the National Forest Monitoring System for REDD+ requires substantial additional efforts. Discussions are currently underway between FIPD/MAF and donor agencies on how to design the biomass database, including the platform, data input procedures, data backup and maintenance, as well as stratification under the Forest Information Management (FIM) programme.

- The REDD+ safeguards are highly relevant to Lao PDR, but the safeguard information system is still to be put in place. As a member of the FCPF and FIP, the country needs to comply with the World Bank's safeguards policies and the government is committed to developing social, environmental and government safeguards for REDD+ implementation. At site level, various donor led projects have applied their own standards / criteria. FPIC also has been implemented in several villages at CliPAD and SURFORD sites. Experience and lessons learnt from these activities should be shared systematically, including within the government.

- At the sub-national level, several REDD+ demonstration activities and feasible studies are being planned and/or implemented by donors and NGOs. REDD+ demonstration activities cover different forest types, including production forest (SURFORD), protected areas (CliPAD) and village forests (PAREED), and they apply different approaches to tackling deforestation, and different standards for addressing forest carbon monitoring and safeguards. There is no guideline or formal procedure to prepare and implement REDD+ projects. To support implementation of REDD+ demonstration activities and draw useful lessons from them, the government should establish a national guideline and formal approval process, as well as coordinate the REDD+ projects under the REDD+ Task Force.

Table of Contents

Figures and Tables

1. Introduction

Global concern about climate change has resulted in huge interest in tackling deforestation and forest degradation, leading to the concept of reducing emissions from deforestation and forest degradation and enhancing carbon stocks in standing forests (REDD+), which has become key in the policy-making of many forest-rich developing countries (Peskett and Brockhaus, 2009).

The concept of Reducing Emissions from Deforestation and Forest Degradation (REDD) was first introduced in 2005, and received broad support at the United Nations Framework Convention on Climate Change's (UNFCCC) Thirteenth Conference of the Parties (COP-13) in 2007. The basic concept of REDD is to support developing countries to conserve their forest carbon stocks, which might otherwise be entirely lost through conversion to other land uses or degraded through unsustainable forest exploitation (Scheyvens and Setyarso, 2010). As the debate continued, more recent discussions broadened the scope of REDD to REDD+, which also recognizes climate benefits resulting from forest conservation, sustainable management of forest, and enhancement of forest carbon stocks.

At the same time, the international negotiations process has led to the understanding that REDD+ must be implemented through national systems. Reflecting on the outcomes of the negotiations, the basic elements of a national REDD+ system can be seen as (i) a strategy or set of REDD+ activities aimed at protecting and/or increasing existing forest carbon stocks; (ii) a forest reference emissions level (REL) / reference level (RL) against which the impacts of REDD+ activities can be measured; (iii) a national forest monitoring system (NFMS) to monitor changes in forest carbon stocks, as part of a monitoring, reporting and verification (MRV) framework for REDD+; (iv) an organisational framework to implement, monitor and report on the REDD+ activities; (v) a national registry to avoid double counting, and maintain a record of ownership of emission reductions from REDD+; and (vi) an information system to monitor and report on the how REDD+ safeguards are addressed and respected to minimise the risk of REDD+ actions

The Lao People's Democratic Republic (Lao PDR) has been participating in the international REDD+ negotiation process under the UNFCCC since 2007. The REDD+ concept is highly relevant to Lao PDR as it has a large per capita forest area, with relatively high per capita deforestation and forest degradation. The Government of Lao PDR (GOL) supports a flexible, stand-alone internationally binding agreement for all five REDD+ activities: avoiding deforestation and forest degradation, conservation, enhancing forest carbon stocks, and sustainable management of forests (DOF, 2011).

This report provides an independent review of the state of REDD+ readiness in Lao PDR as of December 2012. It is part of a regional study on national REDD+ readiness funded by the Ministry of Environment of Japan and conducted by the Institute for Global Environmental Strategies (IGES) which aims to share information and lessons from readiness pro-

cesses. Information for the report is drawn from the literature and from interviews with REDD+ stakeholders in Lao PDR.

Section 2 of the report provides the background for national REDD+ readiness. It discusses forest resources, their importance to the county and people, forest ownership and use rights, and drivers of deforestation and forest degradation.

In Section 3, the report reviews the national forest policy and governance. This section discusses the overall regulatory and management framework, as well as community participation in forest management, all of which are critical for understanding the context of REDD+ in Lao PDR.

Section 4 highlights the relevance of REDD+ to Lao PDR, and considers the commitments of the government to REDD+.

Section 5 reviews international support for Lao PDR's REDD+ readiness at national level, finding that Lao PDR relies largely on bilateral and multilateral support for all aspects of REDD+ issues.

Section 6 explains the REDD+ organisational arrangement in Lao PDR in relation to existing forest institutions. It also discusses how proposed organisational arrangements can expand coordination across sectors as well as at the different levels of governance.

Section 7 presents an overview of Lao PDR's on-going national REDD+ strategy. Although the country does not have an officially published national REDD+ strategy, what can be considered elements of a strategy are under development. This section first describes the process in which strategic options have been shaped, focusing on stakeholder engagement and the public consultation process. Then it examines key strategic options to reduce carbon emissions / enhance carbon sequestration in the forestry sector, going on to discuss elements to be considered for implementing REDD+ in Lao PDR.

Sections 8 and 9 deal with the development of the national MRV system and forest REL/RL. Establishing a robust and transparent MRV system and forest REL/RL is fundamental to the REDD+ mechanism. These sections examine current status by discussing existing data and capacity, as well as challenges.

In section 10, the report discusses REDD+ safeguards in Lao PDR. The section first examines the approach of Lao PDR to the safeguards that are set out in Appendix I of the Cancun Agreements, and then it discusses activities that are relevant to these safeguards.

Section 11 provides an overview of REDD+ demonstration activities. For the government of Lao PDR, these will play important roles in generating experiences to inform the development of the national REDD+ policy framework, as well as demonstrating whether REDD+ can actually work on the ground.

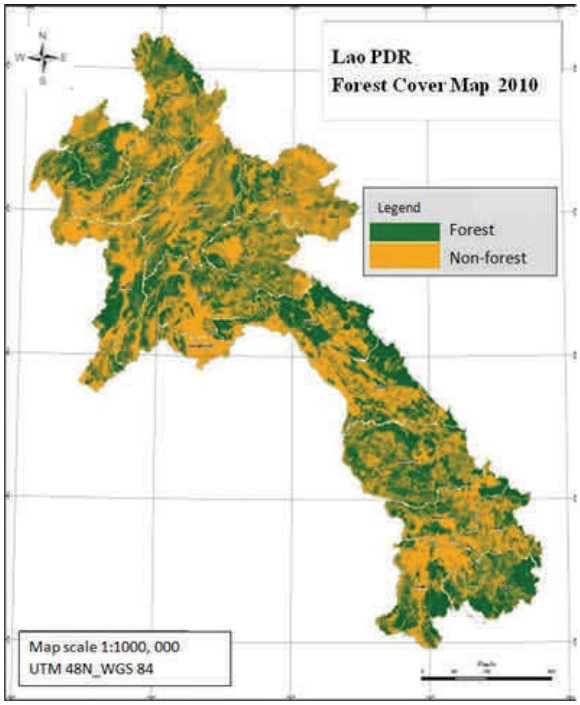
2. Forest Resources and People

The total land area of Lao PDR is 23.7 million hectare (ha), about 70% of which is in hilly or mountainous areas (Sophathilath, 2010). According to the recent national survey carried out in 2010, forest in Lao PDR covers 40.3% of the total land area (approximately 9.6 million ha) (Fujita, 2011). Figure 1 shows the distribution of forest lands in the country, with forest areas illustrated in green. It can be seen that the southern and central parts of the country have more forested areas than the northern part. The main forest type is mixed deciduous forest, but a variety of forest types are distributed throughout the country, as follows (Clarke, 2008):

- Tropical montane evergreen forest along highland areas of the Annamite Mountains and Bolovens Plateau;
- Lowland semi-evergreen dipterocarp forest on the Mekong River Plain;
- Tropical montane deciduous forest scattered in the Northern area;
- Dry dipterocarp forest in the southern area;
- Mixed deciduous forest in the southern area;
- Limestone forest in the Annamite Mountains;
- Pine forest in the Annamite Mountains;
- Subtropical montane forest in the northern area;
- Dry evergreen forest (extensive areas in the north).

These forest areas contain unique ecosystems that include a variety of endemic plants and give the country one of the highest levels of large mammal diversity in Asia (Ingres and Hicks, 2004). Various studies also point out the high conservation value of fauna and flora in Lao PDR (e.g. MacKinnon and MacKinnon, 1986; Duckworth et al., 1999).

Figure 1: Forest cover map of Lao PDR 2010



Based on the Forest cover map 2010 produced by the Forest Investment and Planning Division (FIPD) / Ministry of Agriculture and Forestry (MAF)

Lao PDR, like many other developing countries, has been heavily dependent on its forest resources for economic development. In 1979, wood exports generated about USD 8.7 million, which accounted for 45% of the total national export value (Lerche and Rao, 1984). In 2001, forests accounted for 3.5% of GDP and 25% of the country's export value, raising 15% of total fiscal revenue (MAF, 2005). Recently, the GOL has tried to diversify its econom-

ic activities, but forest resources continue to play a key role for the country's economy.

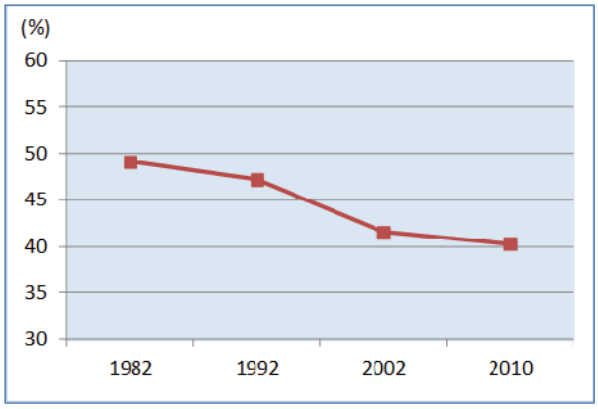
Forests and forest resources are also crucial for the livelihood of local communities. It is estimated that 80% of the total population (approximately 4.2 million people in rural areas) rely heavily on natural resources for their livelihood (Buric and Gorin, 2011). Of the total rural population, about 40% (2 million people) make a living on small-scale subsistence farming in hilly or mountainous areas (Ingres and Hicks, 2004). According to the National Agriculture and Forestry Research Institute of Lao PDR (NAFRI) (2006), non-wood forest products (NWFPs) are estimated to contribute to more than 40% of their total household income.

2.1. Forest cover and forest cover change

The exploitation of forest resources has a long-standing history in Lao PDR, which can be traced back to its colonisation, starting in the early 1900s. However, the exploitation became systematic and evident in the mid-20th century, when the country turned more towards a forest resource-based economy. According to Fujita (2011), the total area of forest decreased from approximately 17 million ha, or 70%, in the 1940s to 11.6 million ha (47%) in 1982, and to only 9.6 million ha (40.3%) in 2010.

In Lao PDR, national forest cover assessment has been conducted four times, in 1982, 1992, 2002 and 2010 (Figure 2). Even though the GOL has made efforts to combat forest loss over recent decades, forest cover has continued to decline. The average annual loss of forest cover during the 1990s was estimated at around 1.4% (FCPF, 2010a). The government estimates that if deforestation continues at the same rate, only 7.4 million ha of forest (about 31% of national land) will remain by 2020 (MAF, 2005). The deforestation rate has recently declined to 0.5% between 2000 and 2010 (FAO, 2010). On the other hand, various studies point out significant spatial variations in deforestation rates across the country (e.g. FAO, 2010; Sophathilath, 2010; Moore et al., 2011). According to these studies, deforestation has taken place mostly in the northern part of the country, where most of the land is mountainous and shifting cultivation is the common farming system.

Figure 2: Forest cover change in Lao PDR



Source: Fujita (2011).

The situation regarding forest degradation is also critical. It is estimated that dense forests declined from 29% in 1992 to 8.2% in 2005, with an increase of degraded forests from 16% to 24.5% of the total forest area (FAO, 2009). Simultaneously, forest fragmentation has become a major issue needing attention; in 2005, forest areas of 10 ha or less accounted for 6.7% of the total forest area, while they were estimated to be only 0.9% in 1992 (MAF, 2005).

2.2. Proximate causes and underlying drivers of deforestation and forest degradation

Deforestation has been, in large part, driven by the need for land for investment in cash crops, timber plantations, mining and hydro-power, as well as by expansion of smallholder agriculture for household and communal-based land use (FCPF, 2010a). The pressures on forest lands are also linked with the decreasing supply in, and increasing demand for, forest products in neighbouring countries such as Thailand, Malaysia and Indonesia (FAO, 2000). While the figure has dropped in recent years, log extraction in Lao PDR became more than doubled, from 300,000 m^3 in 1990 to 734,869 m^3 in 1998 (MAF, 2005). The expansion of estate crops, such as rubber, began in about 2002, with substantial interests and investments from foreign countries. By 2007, when a moratorium on large land concessions was issued, natural forests had been disappeared in increasing amounts to make way for new plantations (FAO, 2009). Shifting agriculture by increasing rural population is also considered to cause deforestation and forest degradation. The impacts of these drivers vary across the regions: shifting cultivation is considered a key deforestation driver in the northern part; timber logging in central and south regions; forest fires in the highlands; and large infrastructure development in the south. A recent study conducted by SUFORD on wood energy in the country shows that fuel wood collection by rural communities for energy consumption is a significant driver of forest degradation and subsequent carbon emissions (Clarke, 2012).

The commercial logging is stimulated by weak law enforcement and lack of monitoring system, resulting over and often uncontrolled timber harvesting. Little transparency or accountability in forestry sector can be considered to have worsened this trend (Bestari et al., 2006). Like this, the proximate causes are often linked with underlying drivers. Throughout readiness activities for REDD+, further key underlying factors have been identified, which include: growing domestic / international demand of wood and agricultural products; weak governance; insufficient capacity of overall forest management, including cross-sectoral coordination in controlling logging; inadequate extension services and poverty of farmers; incomplete land use zoning and titling; and limited dissemination of laws and regulations (FCPF, 2008; 2010a).

2.3. Forest ownership and user rights

The Forestry Law (2007) of Lao PDR defines Natural Forest and Forestland as the property of the national community, which the State government manages in a centralised way throughout the country. The user rights of forest and forest land can be allocated to individuals and organisations by the State according to the forest category and the management plans. The Land Law (2003) states that individuals and families may only be granted long term user rights to degraded forestlands. Other forest lands, such as production forest areas, may be granted through a lease or concession from the government.

The Forestry Law, Land Law and the Law on Local Administration allow local communities to live in forested areas and use forest resources for their livelihoods in accordance with a management plan in different types of forests. Their customary use of forests is basically recognised

through two steps: (1) designation of state forest areas into Production, Conservation or Protection Forest areas; (2) delineation of village lands within these areas (Chokkalingam, 2010). When village lands fall within Conservation and Protection Forest areas, local villagers are allowed their customary use of timber and NWFPs in controlled use zones and in the buffer zones. Customary use of NWPFs is allowed within the Production Forest areas, whereas villagers are allowed to harvest timber in designated forest areas for village use (ibid.). However, this timber harvesting requires approval permission and is subjected to a quota.

The GOL has developed a series of policy instruments to allocate user rights of natural resource to individuals and village communities. In 1996, the Instruction on Land Forest Allocation for Management and Use was issued to provincial governors in order to encourage the allocation of temporary user rights in mountainous land to local farmers (IGES, 2003). Such land allocation process at village level needs be consistent with local contexts of customary land use, as well as other land allocation schemes at national and provincial levels. However, owing to the lack of a coordination system and unclear responsibilities within the government, the land allocation process has not been adequately implemented. Consequently, forest boundaries and user rights have not yet been fully defined by the government.

3. Forest Policy

It has been the policy of Lao PDR to maximise profit from the country's existing natural forests, and forest resources have become important contributors to national development (Phimmavong et al., 2009). Consequently, pressure on the forest has increased considerably, resulting in substantial forest loss across the country. The problems were already recognized by the government in 1989, when the first National Forestry Conference was held (FAO, 2000). At the conference, the Department of Forestry (DOF) under the Ministry of Agriculture and Forestry (MAF) strongly argued that "Forest destruction in the country has reached a critical point; it is the time for us to change completely from indiscriminate logging and other forms of deforestation to focusing on tree planting and forest conservation" (Morris et al., 2004). Following the conference, the Tropical Forest Action Plan (TFAP) was developed in collaboration with several international organisations including the World Bank, United Nations Development Programme (UNDP) and the Food and Agriculture Organisation of the United Nations (FAO), and adopted as the National Forestry Action Plan by the GOL. Since then, a series of policy instruments has been introduced with the aim of promoting the conservation and sustainable use of forests, improving logging practices, and increasing

forest industry efficiency and forest rehabilitation (Yasmi et al., 2010). In line with this, the government has strengthened the authoritative control over the timber industry and export sector, resulting in log exports being banned in 1999 and only the export of finished wood products being allowed since 2007 (EIA, 2011). At the same time, the government has promoted collaboration with domestic and international actors with an emphasis on plantation development, NWFPs and natural forest conservation (FAO, 2009).

3.1. Forestry Strategy 2020

While there are several national policies that address the forestry sector in Lao PDR, the key guiding document is the Forestry Strategy 2020 (FS 2020), which was endorsed in 2005. FS 2020 guides the development of the forestry sector in line with overall national plans and strategies for socio-economic development and environmental conservation. The strategy sets out the goals for nine areas, covering land use planning, production forests, NWFPs, plantation forests, logging plans, wood processing, protection forests, biodiversity conservation and rural poverty eradication. One of the most significant policy goals of FS 2020 is the target of forest cover increasing to 65% by 2015 and 70% by 2020. To meet this objective, the MAF identifies the need for natural regeneration of 6 million ha and plantations on 0.5 million ha in degraded forests (MAF, 2005). Notably, FS 2020 considers the development of the forestry sector as a key to achieve the GOL's policy target of rural poverty alleviation. Financial and technical assistance from donors is essential for the country to achieve the targets of FS 2020.

3.2. Forest categories and management

Much of the legal basis for forest management in Lao PDR is provided by the Forestry Law, which was enacted in 1996 and amended in 2007. While the Forestry Law (1996) classified forests into five categories and emphasised the allocation of forest to individuals and organisations for management and use, the Forestry Law (2007) re-defines forest into three categories and provides the legal basis for the management, conservation, protection and development of forestry. As of 2012, MAF is in the process of revising the Forestry Law 2007, as there is an urgent need to address the issues of tenure and forest carbon rights.

Table 1: Forest categories in Lao PDR

Categories	Purpose	Extent (ha)	Agency
Production Forest	Utilisation for forest product business	3.2 million	MAF
Conservation Forest	Conservation of nature, preserving biodiversity	4.7 million	MONRE
Protection Forest	Protection of water resources, preserving soil erosion	7.9 million	MONRE
Non-designated forest areas	Potential area for concession	3.4 million	MAF

Source: FCPF (2010a), Fujita (2011).

Regarding forest management categories, forest lands in Lao PDR are classified by the Forestry Law (2007) into three categories: Production, Protection, and Conservation forest areas (Table 1), which include regeneration forest, degraded forest and village use forest. Previously, jurisdiction over all state forests was granted to the MAF. However, along with the recent reform in forest governance, jurisdiction over conservation and protection forest areas was transferred to the newly established Ministry of Natural Resources and Environment (MONRE). Consequently, jurisdiction over state forests is divided between two ministries; MAF and MONRE.

Development of Production forest areas was started in 2003 using the GOL's Forest Resource Development Fund (FRDF)[1] with considerable support from the Sustainable Forestry and Rural Development (SUFORD)[2] project (Chokkalingam, 2010). The Production forest consists of commercial timber harvest zones, conservation and protection zones, and non-commercial production zones (ibid.). It is a priority of the government to complete the establishment and management of production forest. All production forest areas have been demarcated amounting to 3.2 million ha in total. Currently 1.2 million ha of production forests are managed systematically and have forest management plans that support sustainable forest management. More than 100,000 ha of production forest areas has been certified under the Forest Stewardship Council (FSC), with plans to increase gradually certified production forests.

With regard to other forest categories, Conservation forest areas amount to 4.7 million ha, which include the totally protected zones, the controlled use zones, the corridor zones and the buffer zones. Protection forest areas, which amounts to 7.9 million ha, consist of total protection zones and controlled use zones. The government seeks for an alterative approach to encourage conservation and restoration of forest ecosystems in the areas through promoting eco-tourism, conducting research activities, and other activities in accordance with the country's laws and regulations. However, Conservation and Protection forest areas are still in the early stages of development. Several issues need to be addressed, such as boundary surveys and delimitation, zoning, forest and socio-economic assessments, coordination with line ministries and relevant local administrations, and participatory village territory and land-use mapping (Chokkalingam, 2010).

Non-designated forest areas also need to be addressed properly. There are around 3.4 million ha of forest areas outside the three management categories. Since the non-designated forest areas do not have a

1. The Forestry and Forest Resource Development Fund (FRDF) was established in 2005 with the aim of developing the forestry sector and forest resources. It initially focused on Production forest, however currently the fund is focussing on the management of Protected Forest Areas and National Biodiversity Conservation Forests (Muziol et al., 2011).
2. The SUFORD project, which started in late 2003, is a multilateral project between the government of Lao PDR, the World Bank and the government of Finland. The project serves as the main basis for forestry development with a specific focus on Production Forest, aiming to contribute to rural development, poverty reduction, bio-diversity conservation and national socio-economic development.

responsible management body nor plan, are often of open-accessed, those forests risk to be degraded. Therefore, the GOL needs to develop an operational management plan through which local people are not marginalised and forest resources are managed in a sustainable manner.

3.3. Community participation in Forest Management

It is the intention of the GOL to encourage local communities to be involved in forest management and follow the government's policy to reduce slash and burn practice[3]. The government also recognises community involvement in forest management as an important means of achieving the targets of poverty eradiation.

Much of the legal basis for community participation in forest management is provided by the Forestry Law, MAF Instruction 822/1996 and MAF Regulation 535/2001 (MAF, 2005). Since the early 1990s, various types of community land use and management have been introduced for different categories of forest. For instance, in the Production forest areas, benefit-sharing arrangements for villagers in relation to timber harvesting and reforestation activities have been developed. SUFORD has provided important experiences in introducing village forestry to production forests. Other initiatives led by the government focus on ecotourism and NWFPs, such as rattan and bamboo.

However, the overall level of local participation is considered to be low. In order to develop community involvement in forest management, the GOL faces several challenges, including the limited capacity of relevant state departments at local level to deliver forestry services, allocation of funds and the demarcation of different forest categories considering actual land use by local population. Above all, unsecure land tenure, lack of land titles and user rights need to be addressed for community forestry to develop. Even though land and resource rights are recognised by the country's Land Law (2003) and Forestry Law (2007), these laws have not been properly implemented on the ground. Lao PDR's Readiness Preparation Proposal (R-PP) submitted to the World Bank's Forest Carbon Partnership Facility (FCPF) recognises that customary forest users and local communities are often in a weak position, with no enforceable rights over the forest they manage (FCPF, 2010a).

3.4. Forest land allocation

In 2007, the National Land Management Authority (NLMA) was established, with the mandate for land use planning and land allocation. In the same year, the NLMA issued a ministerial instruction, which enable villagers to apply for communal titles of their land (Moore et al., 2012). In addition, the government completed its manual of Participatory Land-Use Planning (PLUP) in 2010, supported by the Japan International Cooperation Agency (JICA), the Swedish International

3. Comment of the Deputy Minister of Environment and Natural Resources (MONRE) at the National Workshop on Forest Tenure and Policies in Lao PDR, organised by Rights and Resources Initiative (RRI), RECOFTC (the Centre for People and Forests) and MAF in 28-29 November 2011, at Vientiane.

Development Agency (SIDA) and the German Agency for International Cooperation (GIZ). The PLUP manual describes standards and appropriate procedures and steps for participatory land-use planning for different categories of forest. It also emphasises the responsibilities of the State agencies and the importance of their coordination. However, the capacity and resources of the government are problematic, and PLUP has received little legal recognition. Accordingly, PULP implementation has been limited only to the project sites led by donors or international non government organisations (NGOs). In practice, communal titling has been piloted only in a few village lands. Another challenge is associated with the limited availability of data regarding forest resources in the country. The land use planning has been conducted based on incomplete forest date sets and often without considering information relevant to the objectives of forest use (FCPF, 2010a).

4. Commitment to REDD+

The REDD+ concept is highly significant to Lao PDR since the country has a large per capita forest area, with relatively high per capita deforestation and forest degradation rate (Muziol et al., 2011). Annual emissions from deforestation and forest degradation are estimated at 72% of the country's total emissions (around 51 million tCO2) (FCPF, 2010a; Buric and Gorin, 2011). This implies that REDD+ could provide a significant opportunity to increase the revenues from forest sector. Indeed, REDD+ readiness process has already provided significant official development assistance (ODA) funding for the country. During the period between 2008 and 2012, REDD+ Finance in Lao PDR amounted to more than USD 55 million. In addition to the financial revenues from REDD+, the GOL expects REDD+ to support the achievement of targets set up in the FS 2020, including biodiversity conservation and rural poverty alleviation, as well as 65% forest cover by 2015, and 70% by 2020.

Engagement in climate change mitigation action is also critical for the development of Lao PDR, as the country is most likely to be vulnerable to climate change due to its great dependency on natural resources and its low adaptation capacity. It has been pointed out that the main impacts from the extreme climate events such as flooding and drought would include loss of paddy fields and rice stocks, and damages to agricultural infrastructure leading to livelihoods lost and food shortages (MWBP, 2005). In this context, climate change and REDD+ have become recognised, discussed within the government and recently incorporated into Lao PDR's national strategies and plans, such as the

National Socio-Economic Development Plan 2011-2015, the Agricultural Development Strategy 2011, and the Agricultural Master Plan 2011.

In order to address overall climate change issues, Lao PDR established the National Steering Committee on Climate Change (NSCCC) in 2008. The National Climate Change Office (NCCO) and eight Technical Working Groups (TWGs) were created in the same year, under the Water Resources and Environmental Administration (WREA). Currently the government is working on a National Strategy and Action Plan on Climate Change (NSAP) and on its Second National Communication (SNC) to the UNFCCC, which would include an improved green house gas (GHG) inventory, a programme for mitigation and adaptation measures, and climate change scenarios.

Lao PDR began its participation in the international REDD negotiation process under the UNFCCC in 2007, and the country has progressed in its preparation for REDD+ Readiness. In 2008, the GOL submitted its Readiness Programme Idea Note (R-PIN) to the World Bank's FCPF and started the process of developing a national REDD+ strategy. Following the R-PIN submission, the government formed the REDD Task Force and prepared the R-PP, which was accepted by the FCPF in 2010.

At the regional level, country has been involved in the discussion through the Association of South East Asian Nations (ASEAN), as well as the Coalition of Rainforest Nations with respect to REDD+.

Other relevant commitments or achievements of Lao PDR in relation to REDD+ are:

- Lao PDR joined the REDD+ Partnership in May 2010.
- The country was selected as one of eight pilot countries of the Forest Investment Programme (FIP), with its proposal accepted in November 2011.
- The Ministry of Natural Resources and Environment (MONRE) was created in 2011 as part of institutional restructuring, and the Department of Forest Resource Management (DFRM) was formed in 2012.
- The REDD+ task force was re-established in 2011/2012 to include broader sectorial representations and civil society organisations.
- A national workshop on forest tenure and policies was held in 2011 in collaboration with the Rights and Resources Initiative (RRI) and RECOFTC (the Centre for People and Forests).

5. Technical and Financial Assistance for REDD+ Readiness

Lao PDR relies heavily on multilateral and bilateral support for REDD+ readiness and related forestry programmes. In 2012, more than eight programmes/projects supported by donors were under way. The amount of financial assistance until 2018 is estimated to be about USD 80 million. Table 2 summarises the key multilateral and bilateral support to Lao PDR at the national level in relation to REDD+.

World Bank is the largest donor in Lao PDR. Through its participation in the FCPF and the FIP, Lao PDR receives USD 33.6 million for REDD+ readiness and implementation.

Japan is another major donor, supporting readiness through JICA's Technical Cooperation Project and the Grant Aid Programme. Support from Japan focuses on technical aspects of forest monitoring and information systems. In addition, JICA is assisting the GOL in developing its approach to reducing carbon emissions through the Participatory Land and Forest Management Project (PAREDD).

The government of Finland, together with the World Bank, supports the GOL through the SUFORD project, which aims to achieve the sustainable management of natural production forests to alleviate rural poverty. SUFORD provides support to forest policy reform, inventory and demarcation. With respect to REDD+, the project assists Lao PDR's delegation to the UNFCCC and has a REDD+ demonstration site which is expected to generate carbon revenues from the voluntary carbon market.

Through Climate Protection through Avoided Deforestation (CliPAD), GIZ and KfW (Kreditanstalt für Wiederaufbau) have supported conservation forest areas. CliPAD also has provided the government with assistance in designing and developing REDD+ readiness at the national level. Currently, CliPAD is re-designing its supports for developing REDD+ system including piloting activities at sub-national level.

DOF, as an executing agency, is engaged in most of these programmes/projects, reflecting its mandate to govern forests and forest resources. The newly established REDD+ Office is expected to coordinate these initiatives in accordance with the government policy and readiness activities under FCPF process. In addition, MONRE, as a responsible ministry for protected areas, is likely to have key roles in REDD+ coordination with donors.

Table 2: Multilateral and bilateral supports to Lao PDR in relation with REDD+

Project Name	Objectives	Provider	Executing Agency	Period	Total
R-PP Preparation	R-PP submission to FCPF	World Bank-FCPF	DOF/MAF, REDD+ Task Force	2010	200,000 USD
Development and Implementation of R-PP	Expected Outcomes • Readiness management arrangements • Implementation arrangements • MRV system and Carbon registry	World Bank-FCPF	DOF/MAF, REDD+ Task Force	2011-2015 (proposed time frame)	3.4 million USD
Forest Investment Programme (FIP)	To promote sustainable forest management by providing scaled-up financing including: • Protecting Ecosystem services, • Participatory Forest Management	World Bank, ADB, IFC	DOF, DOFI, NAFRI, NAFES, DFRM	2012 ~ 2017 (proposed time frame)	30 million USD
Forestry Strategy 2020 Implementation Promotion (FSIP)	To prepare the MAF 5-year and annual Forest Strategy 2020 implementation plans	JICA, SIDA	DOF, MAF, JICA	2006-2010 (completed)	1.5 million USD
Forestry Sector Capacity Development Project (FSCAP)	To provide Capacity development for formulation and implementation of policies including REDD+	JICA,	DOF, MAF, JICA	2010-2014	2 million USD
The Programme for Forest Information Management (FIM)	To improve the system for forest information management including establishment of a forest baseline for REDD+	Japanese Government	FIPD/DOF, Kokusai Kogyo Co., Ltd.	2010-2013	JPY 475 million
Forest Preservation Programme (FPP)	To provide capacity building for application of forest information including forest information network system and REL	Japanese Government	DOF, FIPD, PAFO, DAFO	2012-2015	N.D.
Sustainable Forestry and Rural Development Project (SUFORD)	To institute nation-wide systematic sustainable forest management framework in Production Forest areas	World Bank, Government of Finland	DOF, DOFI NAFES, NAFRI	2009-2012	22,5 million USD
Climate Protection through Avoided Deforestation (CliPAD)	To develop framework and models to protect biodiversity and reduce GHG emissions in the National Protected Area	GIZ, KfW, WCS	DOF, MAF, Local Agriculture and Forestry Offices	2009- (Phase 1: 2009-2012)	N.D

Source: DOF (2011), DOF (2012).

6. Organisational Framework for REDD+ Readiness and Implementation

REDD+ has been described as an inherently multilevel puzzle (Korhonen-Kurki et al., 2012). Indeed, REDD+ would be different from any other forest-related programmes and projects that Lao PDR has experienced in the past. The GOL recognises that REDD+ includes multiple activities of various scales including capacity building, consultation processes and field actions, with multiple financial sources (multilateral and bilateral donors, compliance and voluntary markets) and multiple actors with different authorities and interests (state agencies, donors, local governments, NGOs and the private sector) (FCPF, 2010a).

Based on this understanding, the organisational framework for REDD+ in the county has rapidly evolved, including more state ministries and civil society organizations. Through this process, the government aims to introduce wider perspectives to ensure coordination across the agencies involved in land and natural resource management at different levels. However, the overall organisational framework for REDD+ has to consider developing its administrative capacity, and will have to be in accordance with existing national and sub-national institutions and structures.

6.1. Key state organisations

Reflecting its mandate to oversee forest lands in the country, the MAF has played a leading role in the development of national REDD+ and served as the national REDD+ focal point. The MAF was instructed by the Prime Minister's Office to proceed with the FCPF process. Under the MAF, the DOF has been responsible for Lao PDR's REDD+ policy and for developing a REDD mechanism in line with the FCPF process and bilateral / multilateral donor support. Another key department under MAF is the Department of Forest Inspection (DOFI) which is responsible for inspection and forest law-enforcement. In addition, the Forest Inventory and Planning Division (FIPD) (under DOF) is expected to play a central role in establishing MRV system for REDD+.

Another key ministry is the newly established Ministry of Natural Resource and Environment (MONRE). In Lao PDR, there has been on-going fundamental institutional reform over forest resources. MONRE was created in July 2011 with responsibility for environmental, natural resource and land management issues. This Ministry was created largely based on the Water Resource and Environment Administration (WREA), which has been the UNFCCC national focal point, and amalgamated with some departments from the National Land Management Authority (NLMA) and the Forest Conservation and Protection divisions from MAF (REDD Desk, 2012). Within MONRE, the Department of Forest Resource Management (DFRM) is the most relevant to REDD+.

Both ministries are responsible for (and likely to develop) REDD+ demonstration activities in their respective forest areas. Nevertheless, there is uncertainty regarding the mandates to develop overall REDD+ readiness between the two ministries. Clarification with regard to roles and responsibilities for development of the national policy and legal framework, forest carbon, and benefit sharing should be given priority.

6.2. REDD+ Task Force

In order to engage all sectors involved in REDD+ readiness, the MAF Decree No. 1313 of 3rd of November 2008 established the REDD+ Task Force, which is chaired by the Director-General of the DOF/MAF. Currently, the REDD+ Task Force is the government's main instrument for managing REDD+ readiness activities. Its main tasks include: (1) management of the FCPF process; (2) coordination of planning / implementation of REDD+ projects; (3) participation in international climate change dialogue and REDD+ negotiations; and (4) capacity building through workshops and seminars (FCPF 2010a). Initially, the Task Force included 12 members at Director General (DG) or Deputy Director General (DDG) level, of which seven are from the MAF. The Task Force was reorganised in 2011 and expanded its members, integrating those from other key ministries including Finance, Planning and Investment, and Mines and Energy (Table 3).

In addition, two agencies are considered to be close to civil society: the Lao Front for National Construction (LFNC), which is a political coalition umbrella organisation for Laotian mass organisations and other socio-political organisations, including certain ethnic minority affairs; and The Lao Women's Union, which is mass organisation promoting gender equality and protecting the interests of women and children.

Previously, the REDD+ Task Force had been supported by the Advisory group which includes eight international expatriates from different donors, such as SUFORD, FSIP, and CliPAD. These advisors have provided coordination and organisational support to the Task Force as well as to the technical components of REDD+, including carbon stock estimation, REL/RL setting and MRV system. However, when the REDD+ was re-established in 2011, technical advisors were not considered as a part of the REDD+, having less significant roles in the REDD+ process. This shift is seen as having a stronger national ownership in the REDD+ readiness.

Table 3: Members of REDD+ Task Force

	State Agencies	
1	DG of DOF / MAF	Chair
2	DDG of DOF / MAF	Representative of the Chair
3	Land Planning and Development / MONRE	Member
4	Department of Environment / MAF	Member
5	DOFI / MAF	Member
6	National Agriculture and Forestry Research Institute (NAFRI)	Member
7	Research Division, Faculty of Forestry at the National University of Laos (NUOL)	Member
8	Mining Department (DOM) / the Ministry of Energy and Mines (MEM)	Member
9	Electricity Department / MEM	Member
10	Law Department / the Ministry of Justice	Member
11	Planning Department / the Ministry of Planning and Investment (MPI)	Member
12	International Finance Cooperation Division / the Ministry of Finance (MOF)	Member
13	Lao Front for Construction (LFNC)	Member
14	Lao Women's Union	Member
15	Lao National Chamber of Industry and Commerce	Member

Source: Mr. Ounekham Khamsene / Secretariat of REDD+ Task Force (2012).

6.3. REDD+ Office and Technical Working Groups

The REDD+ Office was established within DOF in 2012 to support the REDD+ Task Force at the working level. According to Lao PDR's R-PP (2010), its tasks included: (1) managing implementation of the readiness activities funded by FCPF; (2) coordinating and monitoring REDD+ related activities funded by other donors or by credits from the voluntary market; (3) monitoring international negotiations; (4) organising stakeholder coordination; (5) preparing a draft regulation for submission to the Task Force; (6) preparing a proposal of REDD+ funding mechanism; (7) developing a carbon registry; and (8) preparing technical reports and progress reports to the Task Force. To deal with technical issues required for REDD+ development, the REDD+ Office will have a number of Technical Working Groups, including REDD+ strategy, forest REL, MRV, Stakeholder Participation and Consultation (SPC), Land-use Planning, Carbon Registry, and others as required.

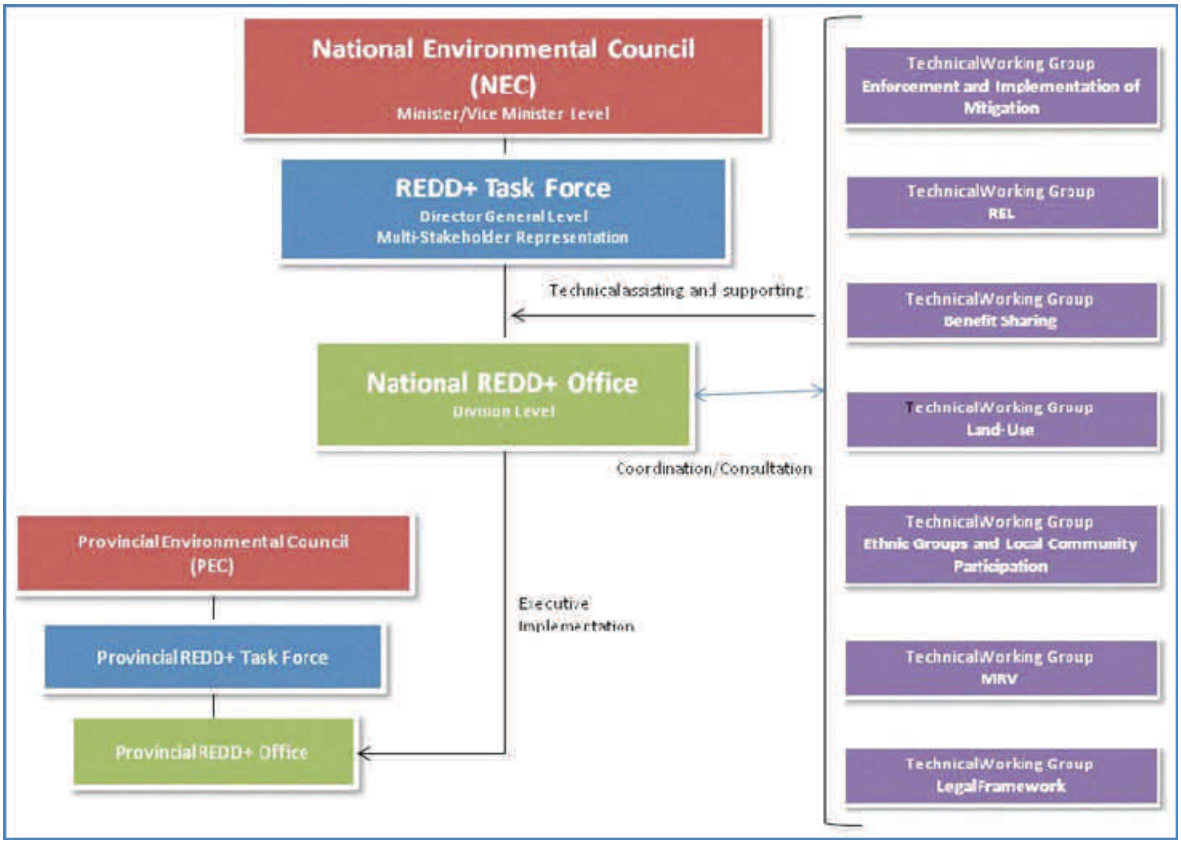
6.4. National Environmental Committee

For implementation of the readiness phase, high-level cross-sector coordination and policy guidance is expected to be provided by the National Environment Committee (NEC), which was established in 2002. Its main responsibilities are to coordinate and provide advice to the government and its agencies regarding environmental management, strategies, regulations and plans (FCPF, 2010a). The NEC consists of management level officials from fourteen key agencies, and is chaired by the Vice Prime Minister, with the MAF Minister acting as Deputy Chairperson (ibid.).

6.5. Organisational framework for REDD+ in Lao PDR

Figure 3 illustrates the organisational framework proposed by the GOL for REDD+ implementation. The proposed structure shows how REDD+ coordination will be achieved across the horizontal and vertical dimensions of government.

Figure 3: Design of the organisational framework for REDD+ in Lao PDR



Source: DOF (2012).

The idea of REDD+ framework is new in Lao PDR, which is still moving towards multi-sectorial governance. The proposed arrangement is likely to have uncertainties and challenges as well as gaps with the on-going institutional reform in the forest sector.

First, although the REDD+ Office was set up within MAF, it is an interim solution and it is still not clear how the mandates of MONRE and MAF relate in this regard. The location of the REDD+ Office and its roles and responsibilities following institutional restructuring should be clarified. In addition, there is still confusion at provincial levels on mandates between MAF and MONRE.

Second, there is a weak link between the REDD+ Task Force under NEC and the Climate Change Office under the National Steering Committee on Climate Change (NSCCC). The R-PP only states that the REDD+ Task Force is connected to other relevant technical working groups such as

the Technical Working Group on Agriculture and Land Use and Forestry of NSCCC. The REDD+ readiness under the Task Force should be integrated or be consistent with their work. Another concern is how effectively the Task Force, while it is located within the department of MAF, can ensure the strong cross-sectoral coordination that is necessary.

Another challenge is related to the coordination across the different levels of government. As shown in Figure 4, the GOL proposes to establish a similar structure at the provincial level, in which the Provincial REDD+ Office will coordinate REDD+ activities at this level. Muziol et al. (2011) point out very broad mandates for the levels of local administration (province, district, and village) regarding forestry and the land use sector in Lao PDR. However, the R-PP (2010a) does not provide much detail on exactly how the various levels relate to one another. In addition, there has been concern about the capacity of local administrations to implement REDD+ activities and procedures.

Considering the institutional reform regarding forest resources, Lao PDR's initiative poses major challenges for effectiveness as well as legitimacy with regard to its design and the responsibility for development and implementation of REDD+. Currently, jurisdiction over state forests are divided between MAF and MONRE. Also there remains a concern about the complexity of multi-layered administrational decision making process in relation with REDD+ actions (Muziol et al.,2011). It is not clear how the proposed REDD+ institutional arrangement can reach out over sectors and different levels of government. In addition, elaborating the respective roles and responsibilities of different actors and providing adequate capacity building are crucial to meeting the government's REDD+ objectives.

7. National REDD+ Strategy

Since the country has not yet officially published its national REDD+ Strategy, the R-PP and the R-PIN are considered to be the main strategic documents for REDD+.

7.1. Process of developing the strategy

In 2008, the GOL submitted the R-PIN to the World Bank's FCPF and started the process of developing a national REDD+ strategy. This effort has been encouraged mainly by the FCPF and supported by a number of bilateral donors and NGOs. Lao PDR is not a member country of the UN-REDD Programme. Under the FCPF's readiness mechanism, the GOL expects to establish institutional and regulatory framework, achieve a reliable estimate of the forest carbon stocks, quantify sources of forest carbon emissions, com-

plement national strategies, develop the national reference scenarios, and design a national MRV system.

During the formulation of R-PIN and R-PP, a wide range of stakeholders from central government, academic institutions, civil society organisations and the private sector were consulted. The development of the R-PP was led by DOF with support from donor agencies including JICA, GIZ and the Government of Finland, and the National University of Laos (NUOL), as well as independent consultants. In formulating the R-PP, two stakeholder consultation workshops were held. The first workshop in May 2010 focused mainly on awareness raising and presenting the principal issues to be discussed, while the second one in August 2010 discussed the draft R-PP. The R-PP was assessed by the FCPF Participants Committee in November 2010, and a revised version of the R-PP was submitted to the FCPF Secretariat in February 2011. Also, with support from FAO, a consultation on private sector engagement in REDD+ was conducted in July 2011.

Simultaneously, the bilateral projects under the DOF (Table 2) have supported government decisions on national REDD+ strategy development, forest reference (emission) levels development, the MRV system, safeguards, institutional strengthening, and capacity building. Several NGOs, such as the Wildlife Conservation Society (WCS), World Wide Fund for Nature (WWF) and RECOFTC have held a number of training workshops and produced reports on a wide range of REDD+ issues, including biodiversity and rural development.

Consultation and participation, however, have been limited to the national level with less attention given to provincial and local levels. Only a few provinces, where readiness activities supported by donors are currently envisioned, were involved in the consultation for the R-PP (WRI, 2011). The R-PP (2010) explains this by noting that many local stakeholders live in remote villages that are difficult to access and that, at this point in R-PP development, there is no budget for the high costs of full participation in consultation across provincial, district and village levels.

There are strong vested interests in land clearance for timber harvesting, agricultural development and mining that drive deforestation and degradation. These interests involve a wide range of stakeholders at national and local levels. Therefore, it is important to engage all relevant institutions at different levels on REDD+ activities. In this regard, it is crucial to develop and undertake multi-stakeholder dialogue including the private sector, local authorities and communities, prior to developing significant actions. This process should ensure the equitable representation of different sectors and reflect their views.

Lao PDR's R-PP proposes a Stakeholder Participation and Consultation Plan (SPCP) with the aim to provide the framework for stakeholders' participation, reflect their perspectives to develop options for the REDD+ strategy and guide implementation of the R-PP. To develop and implement the SPCP, the Working Group on Stakeholder Participation and Consultation will be established under the REDD+ Office.

7.2. Features of the strategy

Lao PDR favours a REDD+ agreement that is flexible, stand-alone and internationally binding (DOF, 2011). This would cover all five REDD+ activities: avoiding deforestation and forest degradation, conserving and enhancing forest carbon stocks, and sustainable management of forests. This broad scope is supportive of the Forest Strategy 2020 and MAF's five-year plan. It also supports the ambitious target of achieving 70% forest coverage of land area by 2020.

Lao PDR's R-PP provides the options to be considered for the REDD+ strategy to deal with the various drivers of deforestation and forest degradation, as well as for other REDD+ activities. These options will be elaborated during the readiness phase. The government understands that the REDD+ strategy needs to be developed in line with the existing forest management strategies (FCPF, 2010a). Table 4 summarises the existing major policies and programmes that are relevant to the REDD+ strategy, as well as the action plans for addressing the drivers of deforestation and forest degradation.

Table 4: Policies addressed to the drivers of deforestation and forest degradation

Policy	Previous policy performance	Potential to contribute to REDD+	Challenges to implementation
Forest categorisation and management plan with local participation	- Establishment of Production Forest, Conservation Forest and Protection Forest Areas - Completion of the Forest Land Use Planning and Zoning Manual - Completion of forest management plans for PFAs in 9 provinces - Completion of man al of Participatory Land Use Planning (PLUP)	-The forest categorisation would lead to developing and implementing adequate management plans and make uncontrolled clearance difficult - Including multi-level stakeholders would contribute to avoid overlapping of land use planning	- Many production forest areas still lack management plans in northern Laos and few Conservation Forest and Protection Forest Areas have demarcated boundaries. - Lack of financial and technical capacity to complete forest zoning, - Lack of personnel and financial resources at local level to carry out PLUP - PLUP plans receive low legal recognition
Village-based resource management	- Land use planning at village cluster level and land and forest allocation - Provision of alternative production system to replace shifting cultivation - Initiated Land Use Planning and Land Allocation (LUP-LA) programme	- The policy would contribute to increasing local participation in resource management with responsibilities, leading to sustainable resource management and securing local livelihoods	- Limited government capacity to facilitate local communities - Unclear land tenure and incomplete land titling - Poor coordination with other policy initiatives (e.g. village relocations) - Lack of alternative livelihood or production system to replace shifting cultivation in remote areas

Law enforcement and governance	- Establishment of the Department of Forest Inspection (DOFI) within MAF in 2009 - Five-Year Plan for DOFI (2011-2015) including analysis of wood products and consumption	- Law enforcement and good governance would prevent illegal activities including logging, encroachment, and land grabbing	- Absence of management plans, lack of demarcated boundaries, and inadequate personnel and financial resources to carry out law enforcement activities -Lack of monitoring and control system in forestry sector
Sustainable Forest Management (SFM)	- As of 2010, 14% of the area of Production forest has been managed with FSC certification principles for SFM with support from SUFORD - Harvesting Codes of Practice requiring the application of Reduced Impact Logging in production forest areas.	- SFM would contribute to emission reduction as a result of delineation of the forest boundaries and improvement of forestry techniques - Independent FSC audits provide a governance safeguard	- About 40 % of the 3.2 million ha of production forest areas is badly degraded -Lack of understanding and capacity of public sector to plan and implement SFM - Burgeoning timber trade with neighbouring countries exceeds the capacity of Laos regarding government control and resources availability
Forest regeneration and reforestation	-About 146,600 ha of plantation have been established - Profit Sharing System from plantations piloted in the two districts supported by JICA - FS 2020 set up the plan to naturally regenerate up to 6 million ha and plant up to 500,000 ha in degraded forest areas	-Tree planting can contribute to reduce the pressure of natural forest - The policy can contribute to carbon sequestration through forest regeneration and reforestation	- Low tree Plantation Profitability -Survival rate of plantation (66%) - Slow tree-growth and inadequate tree-growing technology in reforestation area -Limited financial sources especially in private sector -Lack of monitoring and control system - Lack of community engagement on fire control and grazing of livestock in forest regeneration areas.

Source: FCPF (2008), FCPF (2010a), MAF (2005).

The government intends to support and strengthen the actions listed above through the readiness phase. Funding from FIP will be used to scale up some of these policy actions to reduce carbon emissions in the forestry sector. However it is widely recognised that REDD+ should be considered in the context of land use planning and national development objectives. Mining, hydro-power develop-

ment and agricultural expansion are considered as highly prioritised areas for national development objectives In Lao PDR. These areas are considered to account for nearly half of the emissions from land use change in Lao PDR (FCPF 2010a). Consequently, the potential conflicts between REDD+ actions and these existing issues should be acknowledged under the proper REDD+ institutions. In this regard, the R-PP discussions include an assessment of the impacts of land allocation decisions based on carbon values in order to establish mechanisms to incorporate REDD+ objectives into the land -use planning process.

7.3. REDD+ implementation in Lao PDR

Lao PDR's R-PP discusses the REDD+ implementation framework, which would enable the country to put its REDD+ strategy into action. In this, three instruments are to be considered: institutional arrangements, the regulatory framework and fiscal measures.

As discussed in section 6, REDD+ institutional arrangements in Lao PDR are under development and coordination across all sectors and levels of governance remains a critical challenge. Inadequate institutional capacity is another challenge to implementing an effective strategy and action plan to address the drivers of deforestation and forest degradation. In addition, there is an urgent need to establish a legal framework for a variety of issues related to REDD+. These include ownership of forest carbon rights, forest carbon MRV, the benefit sharing arrangements and the REDD+ financial mechanism. Roles and responsibilities among government authorities and other involved stakeholders also need to be legally clarified (ibid.).

Financial mechanisms for REDD+ are strongly related to the overall development and implementation of the REDD+ strategy and actions. Currently, Lao PDR is supported by multilateral funding through its participation in FCPF and FIP, while receiving significant bilateral support for extensive capacity building (Table 2). The government also expects opportunities provided by voluntary markets, and ultimately by the future compliance market mechanism under UNFCCC, to support sustainable actions related to REDD+. To secure sustainable and flexible financial sources, Lao PDR supports hybrid approaches to financing (DOF, 2011). While the hybrid approach will help to provide more financial options for a wider range of activities at different levels, this requires the government to establish more comprehensive financial institutions. Existing benefit sharing from timber harvesting can serve as a basis for REDD+ financial mechanism. However, without clear land tenure and carbon rights, REDD+ in Lao PDR would face significant challenges to ensure efficient and effective financing and equitable REDD+ benefit sharing.

The appropriate REDD+ implementation framework should be established during the readiness phase based on further analysis of forest and land-use institutions, as well as evaluation and experience gained from existing REDD+ pilot / demonstration activities (FCPF, 2010b). Based on this understanding, Lao PDR supports the 3-phased approach acknowledged by the Cancun Agreements of COP-16. Phase 1 begins with the development of an institutional and regulatory framework, national strategies and action plans, as well as a specific focus on ca-

pacity building. Phase 2 would follow with the implementation of national strategies and action plans, including the development of sub-national activities, which involve capacity building, technology transfer and results-based demonstration activities at the sub-national level. Phase 3 would include results-based actions that are fully monitored, reported and verified at the national level.

With regard to the scale, Lao PDR is likely to support the 'nested approach', which is a way to frame and integrate sub-national levels of REDD+ actions into the national system. The GOL aims to implement a number of REDD+ pilots, or demonstration activities, in collaboration with on-going projects supported by donor agencies as well as NGOs. In phase 1, for example, in which a national REDD+ regulatory framework is focused, the GOL plans to develop a 'nested approach' accounting system, an formal approval process and guidelines for REDD+ projects. As one of the options for this approach, provincial jurisdictions become a sub-national REDD+ system under the national REDD+ system, and REDD+ projects are nested within each of the provincial jurisdictions[4]. On the other hand, prior to establishing the REDD+ implementation framework outlined above and developing the National REDD+ Strategy, the role and responsibility of provincial governments in this regard should be clarified.

8. MRV for REDD+

In line with Decision 4 adopted at COP-15 for Methodological guidance for activities relating to REDD+, the GOL is developing methods to monitor carbon emissions and removals from forests using a combination of remote sensing and ground-based forest carbon inventory.

8.1. Forest cover assessments and Remote Sensing

In Lao PDR, forest cover has been assessed in 1982, 1992, 2002 and 2010 mainly using LANDSAT imagery (FCPF, 2010a). In addition, the forest base-map 2010 is scheduled to be finalised at the end of 2012 by the FIPD of MAF through collaboration with the FIM (Forest Information Management) project.

One of the challenges that the country faces is the limited quality of remote sensing (RS) data due to the geographical features and cloud cover over the country. In addition, Lao PDR's R-PP argues that with low to medium resolutions, analysts often have to deal with problems in distinguishing certain land use / vegetation classes, such as degraded forest, shifting cultivation, bamboo forest and plantations.

4. Interview, REDD+ Adviser, CLIPAD / GIZ (20 December, 2011)

Most of the donor supported projects have obtained their own imagery in order to overcome the above shortcomings. For instance, SUFORD and FSIP procured 112 ALOS AVNIR scenes in 2008-2010, and 2 SPOT scenes in 2007 (DOF, 2011). The recently established FIM, financed through Japanese Grant Aid, will acquire ALOS AVNIR-2, ALOS PRISM and ALOS PALSAR as well as SPOT, Rapideye and Quickbird images for 2010 (ibid.). In addition, several pilot studies have been carried out, focusing on developing methodologies to monitor deforestation and forest degradation using RS, combined with ground-based surveys. These include Japanese Forest and Forest Products Research Institute (FFPRI) and Asia Air Survey Co. Ltd. (Japan) in Louangphabang province, and Khamkeut district in Bolikhamxai province, as well as SUFORD using LIDAR in Savanakhet province.

However, high-resolution imagery is generally too expensive for implementing at large-scale, as the images themselves are costly, and they require complex processes and highly trained RS experts. The GOL needs to assess the experience and lessons learned from these studies and projects, and select methodologies that are applicable, sustainable and feasible for Lao PDR.

8.2. National Forest Inventory and Ground-based survey

With the support of the Lao-Swedish Forest Programme, the first National Forest Inventory (NFI) was carried out between 1993 and 1999. The first NFI included trees and some non-timber forest products such as rattan and bamboo. Various vegetation attributes were measured including height for all species with diameter at breast height (DBH) of more than 10 cm. This first NFI, whose dataset contains almost 4,000 temporary field plots, is considered as the main information source to estimate forest stocks and help to identify forest attributes of the satellite images. However, the GOL recognises that the NFI is not fully correlated with the forest cover assessments that have been carried out (FCPF, 2010a). This is because that the NFI was designed to provide an estimate of growing stock at national level based on the forest type (evergreen, deciduous, etc.), while the forest cover assessment focuses on forest management categories (production, conservation and protection forest areas).

Another issue to be addressed is related to ground surveys. Detailed surveys have been conducted mainly in the Production forest areas, but REDD+ requires more country-specific biomass data in different types of forest. Consequently, Lao PDR only uses Tier 1 (IPCC default values) for its national Greenhouse Gas Reporting (ibid.). Supported by multilateral and bilateral initiatives, the GOL intends to gather country-specific information (Tier 2) and to gradually progress to Tier 3. However, to achieve Tier 2/3, several parameters need more attention, including allometric data for biomass conversion and expansion of the five forest carbon pools, as only above-ground biomass is measured and accounted for[5].

In order to develop country specific emission factors, the National Agriculture and

5. Interview, FIPD official (21 December 2011).

Forestry Research Institute (NAFRI) has established about 200 permanent sample plots in the production forest areas. However, due to economic concessions and illegal activities, some of them have been removed.

The FIPD plans to conduct the second NFI in 2012-2013 focusing on above ground biomass, with 2,400 sample plots. It is currently developing the sampling design and stratification in collaboration with donor agencies.

8.3. Forest Information Management (FIM)

FIPD has responsibility for, and is expected to play a central role in, MRV for REDD+. However, as there is a lack of institutional capacity and infrastructure to carry out data collection and monitoring of forest trends and carbon stocks at the national level, the Programme for FIM has been implemented under FIPD, with support from the Japanese Government, to help fill in these gaps. The overall purpose of the programme is to improve the system for forest information management in order to contribute to sustainable forest and land management, and ultimately to support climate change mitigation.

The expected outcomes from the programme include providing a forest baseline for the implementation of a national REDD programme, and enhanced capacity -building opportunities and training for government officials to support a Lao PDR -led process on REDD+.

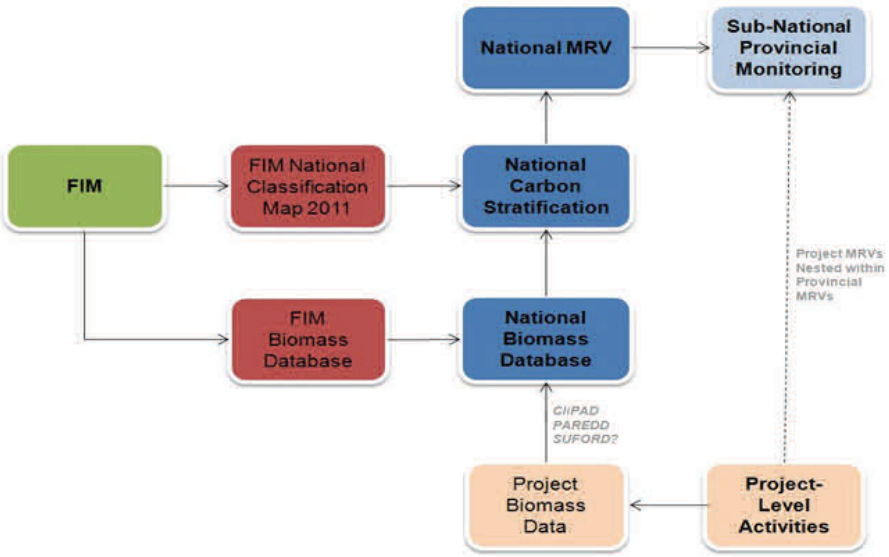
8.4. Approach to the national MRV system

Discussion about the national MRV system was started with SUFORD in 2009 which designed the forest assessment framework for the country. Currently, the discussions are underway between FIPD/MAF and JICA on how to design the biomass database, including platform, data input procedures, data backup and maintenance, as well as stratification under FIM. Figure 4 illustrates initial Lao PDR's approach to establishing a national MRV system. As the figure shows, establishment of National MRV system begins with FIM[6].

As mentioned above, Lao PDR supports the nested approach, in which sub-national activities are integrated into a national framework. Developing a sub-national system allows the country to implement REDD+ demonstration activities quickly and effectively, and help to access to the voluntary carbon market. However, a nested approach requires a more complex carbon monitoring and accounting system whereby the carbon monitoring must include: (1) a clear national reference emission level (REL), (2) well-defined, applicable and sound-science sub-national reference regions and REL, and (3) nested projects whose reference emission levels add up to the reference region and, hence, the National REL (FCPF 2010a). Further discussions and efforts are required to define how the sub-national monitoring would be nested in the national monitoring system.

6. Interview, REDD+ Adviser, CliPAD/ GIZ (20 December 2011).

Figure 4: Initial approach to the national MRV system



Source: Eickhoff (2011).

Considering the fact that the establishment of a forest monitoring system at national level is in the initial stage, the issues regarding reporting and verification still remain unclear. Reporting has to be made at various levels, from the reporting carbon emissions and removals at forest stand level to GHG reporting on a national level. Moreover, it is necessary to define the contents, responsibilities, communication lines, frequency of reporting, quality standards and control, and approval procedures. Basically, FIPD has been responsible for monitoring and evaluation in all three forest categories. Reports on the forest status have been sent to the DOF from district and provincial offices for analysis and compilation (FAO, 2010). However, it is essential to clarify the mandates of MAF and MONRE in this regard. The monitoring system for Non-designated forest area also needs to be addressed, as the area has 3.4 million ha. In addition, while Lao PDR takes the nested approach, which requires more diversified verification arrangements, verification standards for REDD+ are lacking in the country. Thus, the government proposes in its R-PP to develop national standards and guidelines for verification.

9. Forest reference emissions level (REL) / reference level (RL)

The preliminary national reference emission level (REL) / reference level (RL) of Lao PDR has been developed during preparing the R-PP. In its formulation, the land cover assessments from 1982 to 2002 and the NFI 1992-1999, which were used for the baseline and national development plans, were incorporated as modelling factors (FCPF,2010a).

The R-PP notes that even though a range of deforestation rates (0.5 to 1.4 %/yr) was found in different periods and datasets, an average rate of 0.8%/yr was used for the projection. Likewise, the average degradation rate was assumed to be 1.12%/yr over the remainder of the growing stock, while there are differences in the reported rates (0.6 to 1.67 %/yr) across the country. In order to model the Post-2002 emission baseline, the impact on emissions levels was estimated for each variable of national development plans and economic growth related to land-use change, such as development of hydropower and the mining sector (Table 5).

Table 5: Variables and values for modelling national Reference Emissions

	Variable / Driver	Units	Min	Max	Model
Base Reference Emission Level	Deforestation rate	ha/yr	46,000	134,000	90,000
	Degradation rate	m^3/ha/yr	0.6	1.67	1.12
Post-2002 Development	Hydropower	ha/yr	10,000	16,500	N.D.
	Mining sector	ha/yr			14,100
	Infrastructure	ha/yr			1,000
	Plantations	ha/yr			N.D.
	Agricultural Area	ha/yr	Permanent agriculture considered stable		
	Shifting Agriculture	ha/yr	Trends suggest not increasing		
	Fuel wood demand	m^3/ha/yr	N.D.		

Source: FCPF (2010a).

According to Lao PDR's R-PP, in 1982 annual emissions from the forestry sector were at 95.3 million tCO2e, and declined to 60.6 million tCO2e by 2010. The average annual emission from 2010-2020 is estimated at 51.1 million tCO2e and this is expected to decrease gradually as the number of hydro-power projects decline.

Lao PDR's R-PP also projects that if additional emissions from development are combined to this REL, then the annual emission for the 2010–2020 period would increase to 65 million tCO2e.

However, the data used in Lao PDR's R-PP implies great uncertainties in the estimate of total emissions due to the large range of values for each variable, as well as due to the incomplete information, in particular about economic growth and the agriculture sector. Also, Lao PDR's R-PP recognises that the assumption on the growing carbon stock in the remaining forest has a large impact on the projected emission values: if the initial growing stock is less than 10% of the assumed amount, the carbon stock is about 6 million tCO2e lower than that estimated. Uncertainties also arise because, as noted above, the country-specific biomass data are only available for some production forest areas. Furthermore, the R-PP lacks an explanation of the model assumptions with regard to national development plans and economic growth, in particular for the mining sector and infrastructure development.

10. Safeguards

10.1. Approach to safeguards

The REDD+ safeguards are highly relevant to Lao PDR, but the safeguards have not yet been addressed systematically and the safeguard information system is still to be put in. The GOL has made a commitment to develop a range of safeguards based on consultations with major stakeholders (REDD Desk, 2012). The GOL aims to develop relevant safeguard instruments in line with: (1) the country's laws and regulations; (2) the policies and procedures of financing agencies such as the World Bank's FCPF; (3) the requirements of the UN system, and (4) REDD+ safeguards agreed under the UNFCCC negotiations.

As a member of the FCPF and the FIP, Lao PDR prioritise World Bank policies and procedures, including environmental assessment, involuntary settlement and its policies and procedures pertinent to indigenous people and cultural property. For the R-PP submission, the government was required by the FCPF to prepare indicative terms of references (TORs) for a Strategic Environmental and Social Assessment (SESA), which will assess the potential positive and negative impacts of the REDD+ strategic options. SESA has two components: the strategic assessment and the Environmental and Social Management Framework (ESMF) which will be developed to monitor and mitigate both potential social and environmental risks that might occur as a result of the REDD+ implementation strategy (FCPF, 2010a).

Lao PDR's R-PP recognises the need to address governance safeguards to ensure the effective implementation of REDD+ actions. This will include law enforcement, compliance with environmental

laws, illegal logging, land use and carbon rights, equity of benefit-sharing arrangements, eradication of corruption, institutional performance, and conflict resolution mechanisms. The REDD+ Office is expected to develop country-specific indicators for the governance parameters and principles, through consultation and participation of stakeholders (ibid.).

The safeguards related to social issues (indigenous / community rights and participation) are critical to REDD+ implementation in Lao PDR. The country is ethnically highly diverse and over 80% of the total population depend on natural resources for their livelihoods (Buric and Gorin, 2011). Lao PRD's R-PP recognises that both positive and negative social impacts may be produced by implementing REDD+ and proposes developing the 'Stakeholder Participation and Consultation Plan' (SPCP) to ensure equitable representation of stakeholder groups, including ethnic minorities, and their views.

Biodiversity safeguards are also highly relevant. In Lao PDR, thirteen species of animals are known to have become extinct over the last 100 years (FCPF, 2008) and at least fifty-six species are estimated to fall below viable population levels before 2013 (MAF, 2003).

10.2. Activities on safeguards

A range of standards/criteria have been applied in several on-going projects in Lao PDR. For instance, at the SUFORD site, criteria of the government of Finland regarding co-values, World Bank safeguards, and requirements from the FSC have been adopted. In addition, the concept of free prior informed consent (FPIC) has been introduced in 54 villages. At CliPAD's site, FPIC was also carried out in eight villages.

There have also been some studies in the country to develop biological monitoring systems, which are relevant to biodiversity safeguards. These include the SUFORD project, which is developing a system and an approach to monitor biodiversity in production forest areas; and the development of a biological diversity monitoring system by the Joint NAFRI-CIFOR Landscape Mosaics (FCPF, 2010a).
However, it is argued that current capacity of the GOL to undertake biodiversity monitoring is very limited and progress will be largely depend on donors' support for funding and building up capacity.

11. REDD+ Demonstration Activities and Projects

There are several REDD+ demonstration activities being implemented through multiple and bilateral initiatives by World Bank, the Government of Finland and JICA, as well as through collaboration with NGOs (Table 6). In addition, feasibility assessments on implementing a REDD+ project for the voluntary carbon markets

have been conducted at several sites. These studies suggest that transaction costs are still high for REDD+ projects, and economies of scale disadvantage small projects (Clarke, 2011).

The World Bank and the government of Finland through SUFORD project, support GOL's efforts for achieving sustainable forest management, aiming to contribute to rural development, poverty reduction, bio-diversity conservation and national socio-economic development. SUFORD focuses on production forest areas, identifying the linkage between sustainable forest management and REDD+. SUFORD has conducted REDD+ feasibility studies in production forest areas. This includes historical baselines, reference levels, projected crediting scenarios and possible financing for the Dong Sithuane Production Forest Area (Clarke, 2010a, 2010b).

PAREDD, supported by JICA, is another key REDD+ demonstration activity. PAREDD aims to develop a system to halt deforestation through participatory land and forest management in the northern part of Lao PDR. It also focuses on establishing a monitoring system for forest carbon stock change.

WWF has two initiatives in preparation in the south of the country. One of these is the REDD+ pilot in Xe Pian National Protected Area (NPA), which aims to establish a sustainable financing mechanism to support protection of the NPA. As part of its activities, pre-planning has been conducted for a REDD+ initiative. Another WWF initiative is planned to support Xe Sap NPA in Xekong and Salavan provinces, which is part of a trans boundary effort (the so-called CarBi[7]) to avoid deforestation and forest degradation between Lao PDR and Viet Nam (DOF, 2012).

Table 6: On-going REDD+ demonstration activities in Lao PDR

Project title	Focal Area	Proponents	Major activities	Validation	Estimated credits
Dong Sithuane REDD+ project / SUFORD	Dong Sithuane Production Forest Area in Savanakhet province	DOF, NAFRI, NAFES	- Sustainable Forest Management - Reduces deforestation - Supports natural regeneration and restoration of natural forests	VCS and CCBA	N.D
PAREDD	Luang Prabang Province	JICA and DOF, NAFES/MAF	- Participatory land-use planning - Activities to reduce deforestation and forest degradation - Monitoring socio-economic and forest management	Not planned	Not planned
WWF Xe Pian	Xe Pian NPA	DFRM	- Conservation	VCS and CCBA	N.D.

Source: DOF (2011), DOF (2012).

7. CarBi (Avoidance of deforestation and forest degradation in the border area of southern Laos and central Vietnam for the long-term preservation of carbon sinks and biodiversity) runs from 2011 through to 2014 and is financed by the Government of Germany and WWF. The project components include REDD+ pilots in both counties and for the border area (DOF, 2012).

In addition, there were two other REDD+ demonstration activities in Nam Phoui NPA (in Sayabouri province) and Nam Et Phou Louey NPA (in north-eastern Lao PDR) under CliPAD implemented by GIZ and kfW. These projects aimed to develop a framework and suitable models for effective forest conservation in and around NPAs under the REDD+ concept. However CliPAD demonstration sites were closed in March 2012. The Nam Phui NPA REDD+ site was closed because of a national border security issue claimed by the Lao military. REDD+ activities in the Nam Et Phou Louey NPA stopped, as little risk of deforestation in the area was shown in the feasibility study. Currently, CliPAD is re-designing REDD+ pilot projects in new sites, considering an opportunity for Jurisdictional and Nested REDD+ (JNR) under the VCS.

Other on-going REDD+ initiative at site level is the Netherland Development Organisation (SNV) which is working in Nam Xam National Protected Area of Huaphanh province, where it assessed the idea of implementing a REDD project in 2010-2011. This initiative has been incorporated into the Lowering Emissions from Asia's Forests (LEAF) programme financed by the United States Agency for International Development (USAID). The project does not target the voluntary carbon market, partly due to the lack of financial resources; rather it focuses on capacity building and providing the government and communities with practical tools to deal with deforestation and forest degradation[8]. In Lao PDR, LEAF also aims to introduce pilot activities in Attapeu province, in the south-eastern part of the country, to support local efforts to halt deforestation and land degradation.

These projects will provide important lessons and experiences for the REDD+ readiness progress. On the other hand, there is no guideline either formal procedure to prepare and implement the REDD+ projects in the country. In order to support effectively and draw useful lesson learnt from the REDD+ activities on the ground, the government should establish such mechanism and coordinate the REDD+ projects and developers within the REDD+ organisational framework.

12. Conclusion

Since 2007, Lao PDR has drawn on multilateral and bilateral support to develop a national REDD+ system. The country has submitted its R-PP to the FCPF, set up the REDD+ Taskforce and REDD+ Office, and progressed towards developing a national forest monitoring system using RS and ground-based survey. At the sub-national level, various REDD+ feasible studies and pilot activities are being planned and/or implemented by donors and NGOs.

8. Interview, SNV official (20 December 2011).

On the other hand, Lao PDR is still at an early stage in REDD+ readiness. Outstanding the national REDD+ strategy, development of institutional arrangements, as well establishment of REL, MRV and the safeguards monitoring system. Development of these activities will be largely dependent on multilateral and bilateral support, including the World Bank's FCPF, CliPAD (GIZ-KfW), PAREDD (JICA), FIM (Japan) and SUFORD (Finland, World Bank). While these supporting efforts provide opportunities by delivering significant additional funding and necessary capacities to the forest sector, the GOL's ownership of the REDD+ readiness process and its management capacity should be carefully considered.

The GOL recently initiated a revision process of the forestry legal framework for REDD+ implementation, which is to include the issue of forest carbon rights and the benefit sharing system. Simultaneously, forest governance is in a state of transition with the creation of MONRE in 2011. Currently, there is uncertainty about the mandates of MAF and MONRE on REDD+ readiness. The roles and responsibilities of State agencies need to be clarified.

Policy integration and coordination are crucial for the national REDD+ system. Hydropower development, mining and agro-industries are highly prioritised as key investment areas in Lao PDR. Also the debates on REDD+ in the country are inseparable from the problems being faced by indigenous and other forest-dependent peoples. Implementing REDD+, including safeguards, will require the government to introduce wider perspectives into its organisational framework and policy-making process to ensure coordination across the agencies involved in land and natural resource management at different levels.

References

Bestari, N.G., Mongcopa, C.J., Samson, J., Ward, K., 2006. *Lao PDR: Governance issues in agriculture and natural resources*. Asian Development Bank.

Buric, B., Gorin, P., 2011. *Overview of Climate Change Financing Mechanism in Cambodia, Lao PDR, Thailand, and Viet Nam: Final draft study*. FAO [Online] Available at: http://www.fao.org/corp/google_result/en/?cx=018170620143701104933%3Aqq82jsf-ba7w&q=Buric+Gorin&cof=FORID %3A9 [accessed 20 October 2012].

Chokkalingam, U., 2010. *Design Options for a Forest Carbon Legal Framework for Lao PDR: Drawing lessons from across the globe*. Online] Available at: http://www.theredddesk.org/sites/default/files/resources/pdf/2011/2010_chokkalingam_forest_carbon_legal_framework_lao_pdr_full_report.pdf [accessed 10 October 2012].

Clarke, J.E. 2008. *Biodiversity and protected areas Lao PDR*. [Online] Available at: http://www.mekonginfo.org/assets/midocs/0002547-environment-biodiversity-and-protected-areas-lao-p-d-r.pdf [accessed 7 September 2012].

Clarke, M., 2012. *Estimation of baseline emissions from forest degradation caused by extraction of wood for fuel*. SUFORD AF Project. Vientiane, Lao PDR: DOF.

Clarke, M., 2011. Financing the Implementation of a REDD+ Project: Weighing Costs with Forest Carbon Market Risks and the Opportunity of Other Finance Options. Presentation prepared for *Workshop on Private sector engagement on REDD+ in Lao PDR*. July 01, 2011. Vientiane, Lao PDR: DOF.

Clarke, M.,2010a. *Technical Report on the Financing of REDD+ Scenarios in Dong Sithuane Production Forest Area*. SUFORD AF Project. Vientiane, Lao PDR: DOF.

Clarke, M., 2010b. *Technical Report on Historical Baselines, Reference Levels and Projected Crediting Scenarios in the Dong Sithuane Production Forest Area*. SUFORD AF Project. Vientiane, Lao PDR: DOF.

DOF, 2011. *Annual Review of REDD+ Activities in Lao PDR 2010*. Vientiane, Lao PDR: DOF.

DOF, 2012. *Annual Review of REDD+ Activities in Lao PDR 2011*. Vientiane, Lao PDR: DOF.

Duckworth, J. W., Salter, R. E., Khounboline, K., 1999. *Wildlife in Lao PDR: 1999 status report*. Vientiane, Lao PDR: The World Conservation Union/Wildlife Conservation Society/Centre for Protected Areas and Watershed Management.

EIA, 2011. *The Illicit Timber Trade between Laos and Vietnam*. London: EIA.

Eickhoff, G. 2011. REDD+ National Policies Sub-National Implementation: Focusing on a REDD+ nested approach for Lao PDR. Presentation prepared for *the Workshop of CliPAD in Lao PDR*. Vientiane, 23 November 2011.

FAO, 2010. *Global Forest Resources Assessment: Main Report*. Rome: FAO.

FAO, 2009. *Asia-Pacific Forestry Sector Outlook Study II Working paper Series Working Paper No. APFSOS II/WP/2009/17*. Bangkok: FAO Regional Office for Asia and the Pacific.

FAO, 2000. *Asia and the Pacific National Forestry Programmes: Update 34*. Bangkok: FAO Regional Office for Asia and the Pacific.

FCPF, 2010a. *Lao PDR's Readiness Preparation Proposal (R-PP)*. [Online]. Available at: http://www.forestcarbonpartnership.org/fcp/LA [accessed 25 August 2012].

FCPF, 2008. *Lao PDR's* Readiness Plan Idea Note (R-PIN). [Online]. Available at: http://www.forestcarbonpartnership.org/fcp/LA [accessed 25 August 2012].

FCPF, 2012. *Lao PDR's REDD Readiness Progress Fact Sheet*. [Online]. Available at: http://www.forestcarbonpartnership.org/fcp/LA [accessed 8 October 2012].

FCPF, 2010b. *REDD+ Preparation Proposal Lao Peoples Democratic Republic*. Presentation prepared for FCPF in 2010. [Online]. Available at: http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Nov2010/Lao % 20country % 20presentation.pdf [accessed 25 August 2012].

Fujita, S., 2011. Overview of Lao PDR's Forestry Framework. Presentation prepared for the *Workshop on Private sector engagement on REDD+ in Lao PDR*. July 01, 2011. Vientiane, Lao PDR: DOF.

IGES, 2003. *Towards Participatory Forest Management in Laos: Laos Country Report 2003*. Kanagawa, Japan: IGES.

Ingres, A., Hicks, E., 2004. Natural Wealth: A Study for Linking Poverty Reduction with Forest Conservation in Lao PDR. In: J. Morris, E. Hicks, A. Ingles, S. Ketphanh, eds. *Linking Poverty Reduction with Forest Conservation: Case Studies from Lao PDR*. Bangkok: IUCN, pp. 5-54.

Korhonen-Kurki, K., Brockhaus, M., Duchelle, A. E., Atmadja, S., Thuy, P. T., 2012. Multiple levels and multiple challenges for REDD+. In A. Angelsen, M. Brockhaus, W.D. Sunderlin, L. V. Verchot. *Analysing REDD+: Challenges and Choices*. Bogor, Indonesia: CIFOR, pp. 91-110.

Lerche, C., Rao, Y.S., 1984. *A note on forestry sector in Lao PDR*. Bangkok: FAO Regional Office for Asia and the Pacific.

MacKinnon, J., MacKinnon, K. 1986. *Review of the Protected Areas of the Indo -Malayan Realm*. Gland and Cambridge: IUCN.

MAF, 2005. *Forestry Strategy to the Year 2020 of the Lao PDR*. Vientiane, Lao PDR: MAF.

MAF, 2003. *Biodiversity Country Report*, Vientiane, Lao PDR: MAF.

Moore, C., Ferrand, J., Khiewvongphachan, X., 2011. *Investigation of the Drivers of Deforestation and Forest Degradation in Nam Phui National Protected Area, Lao PDR*. Vientiane: CliPAD.

Moore, C., Hansel, T., Johnson, A., 2012. REDD+ in Lao PDR: Is It Also a "Plus" for Forest-Dependent Communities? A Case Study from the Nam Et Phou Louey National Protected Area, Lao PDR. In: A. Naughton-Treves, C. Day eds. *Lessons about land tenure, forest governance and REDD+: Case Studies from Africa, Asia and Latin America*. Madison, Wisconsin: UW-Madison Land Tenure Center.

Morris, J., Hicks, E., Ingles, A., Ketphanh, S., 2004. *Linking Poverty Reduction with Forest Conservation: Case Studies from Lao PDR*. Bangkok: IUCN.

Muziol, C., Nguyen Quang Tan, Oberndorf, R., 2011. *Supporting REDD Implementation in Laos through the Design of a REDD-compliant Benefit Distribution System: Rapid Study supported by a small grant from by the Swedish Environmental Secretariat for Asia (SENSA)*: IUCN.

MWBP, 2005. *Vulnerability Assessment of Climate Risks in Attapeu Province, Lao PDR*.

NAFRI, 2006. *The importance, role and value of Non -Wood Forest Product for Laotian food Security, nutrition and livelihoods (final draft)*. A paper for presentation in workshop, 7-8 December 2007 in Vientiane, Lao. PDR.

Peskett, L., Brockhaus, M., 2009. When REDD+ goes national: A review of realities, opportunities and challenges. In: A. Angelsen, M. Brockhaus, M. Kanninen, E. Sills, W. D. Sunderlin, S. Wertz-Kanounnikoff, eds. *Realising REDD+: National strategy and policy options*. Bogor: CIFOR. pp. 25-44.

Phimmavong, S., Ozarska, B., Midgley, S., Keenan, R., 2009. Forest and plantation development in Laos: history, development and impact for rural communities. *International Forestry Review*, vol. 11, no. 4, pp. 501-513.

REDD Desk, 2012. *Laos: An Overview from the REDD Countries Database*. [Online]. Available at: http://www.theredddesk.org/sites/default/files/resources/countries/readiness_overview/laos_ro_en.pdf [accessed 8 October 2012].

Scheyvens, H., Setyarso, A., 2010. Development of a National REDD-Plus System in Indonesia. In: H. Scheyvens, ed. *Developing National REDD-Plus System: Progress, Challenges and Ways Forward Indonesia and Viet Nam Country Studies*. Kanagawa, Japan: IGES. pp.15-51.

Sophathilath, P., 2010. Assessment of the contribution of forestry to poverty alleviation in Lao People's Democratic Republic. In *Making forestry work for the poor: Assessment of the contribution of forestry to poverty alleviation in Asia and the Pacific*. Bangkok: FAO Regional Office for Asia and the Pacific. pp.175-208.

Yasmi, Y., Broadhead, J., Enters, T., Genge, C., 2010. Forestry Policies, legislation and institutions in Asia and the Pacific. In *Asia-Pacific Forestry Sector Outlook Study II*. Bangkok: FAO Regional Office for Asia and the Pacific.

WRI, 2011. *Getting Ready: A Review of the World Bank Forest Carbon Partnership Facility Readiness Preparation Proposals (Lao P.D.R, R-PP)* [Online] Available at: http://pdf.wri.org/rpp_country_table_lao.pdf [accessed 20 October 2011].

ISBN: 978-4-88788-135-8

IGES OFFICES

HEADQUARTERS
2108-11 Kamiyamaguchi, Hayama
Kanagawa, 240-0115, Japan
Tel +81-46-855-3700 | Fax +81-46-855-3709

TOKYO OFFICE
Nippon Press Center Bldg. 6F, -2-1 Uchisaiwai-cho, Chiyoda-ku
Tokyo, 100-0011, Japan
Tel +81-3-3595-1081 | Fax +81-3-3595-1084

KANSAI RESE ARCH CENTRE
I.H.D. CENTER 3F, 1-5-1 Wakinohamakaigan-Dori, Chuo-ku,
Kobe, Hyogo, 651-0073, Japan
Tel +81-78-262-6634 | Fax +81-78-262-6635

KITAKYUSHU OFFICE
Kitakyushu International, Conference Center 6F, 3-9-30, Asano,
Kokurakita-ku, Kitakyushu, Fukuoka, 802-0001, Japan
Tel +81-93-513-3711 | Fax +81-93-513-3712

Beijing Office
(SINO-JAPAN COOPERATION PROJECT OFFICE)
IGES Sino-Japan Cooperation Project Office
Sino-Japan Friendship Center for
Environmental Protection # 505 Room
Beijing, 100029 China
No.1 Yuhuinanlu, Chao Yang District
Tel +86-10-8463-6314 | Fax +86-10-8463-6314

IGES REGIONAL CENTRE
604 SG Tower 6F, 161/1 Soi Mahadlek Luang 3. Rajdamri Road,
Patumwan, Bangkok, 10330, Thailand