

Lao PDR's Nationally Determined Contribution (NDC)

Progress, opportunities, and challenges in the forestry sector

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Key messages

- Lao People's Democratic Republic (hereafter "Lao PDR") was the first country in Asia to submit its NDC, doing so in September 2015. Building on national development and environmental protection policies, the country aimed to make full use of existing institutional capacity and financial resources, and embed NDC targets in existing policies and planning.
- To date, NDC results have been mixed. The initial target for 90% of the rural population having access to electricity has already been exceeded with the figure now at 95%, while the forestry target of 70% forest cover has yet to be achieved.
- Political commitment is strong. The Government designated the Department of Climate Change (DCC) under the Ministry of Natural Resources and Environment (MoNRE) to become the national focal point for coordinating NDC implementation in Lao PDR. The Government has also issued a number of related laws and regulations, such as the new forestry law in June 2019 and the Decree on Climate Change in September 2019.
- Major challenges impeding the country's efforts to achieve its forestry sector NDC targets are persistent and similar to those identified 10 years ago. These are: policies and measures to address major drivers of deforestation and forest degradation not being fully implemented on the ground; poor coordination between key sectors; a lack of accurate and available data and credible methodologies for measuring outcomes; inadequate institutional arrangements for sustainable forest management and community participation; as well as a lack of available funds for implementing proposed activities.
- In order to achieve and enhance current NDC target ambitions, policies, measures and enabling conditions for transformational change (e.g. funding availability, national ownership, cross-sector collaboration, results-based payment mechanisms, and clarity over carbon and non-carbon benefits) need to be in place.
- Knowledge gaps that need addressing in order to provide credible evidence for the Government and donors to revise and adapt NDC targets, and better implement the NDC include: rigorous impact assessments of existing policies and initiatives on forest protection and development outcomes; and an integrated sectoral assessment on how realistic and feasible NDC targets could be achieved in supporting the National Green Growth Strategy and Sustainable Development Goals by mainstreaming Climate Change into national socio-economic development plans, vis-à-vis Paris Agreement ambition targets in each period.

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Introduction

The Government of Lao PDR has set goals to progress from being a least developed country by 2020 and achieving middle income status by 2030. At the same time, it has also established an overarching national strategy for tackling climate change, which includes the goal of increasing forest cover to 70% of the country's total land area by 2020. In September 2015, Lao PDR became the first country in Asia to submit its NDC, and is now in the process of preparing a revised NDC for submission to the United Nations Framework Convention on Climate Change (UNFCCC) at the end of 2020.

The first NDC focuses on eight priority areas: agriculture and food security; forestry and land-use change; water resources; energy and transportation; industry and urban development; public health; education; and public awareness.

This Infobrief emphasizes the forestry sector for several reasons: Firstly, the Government of Lao PDR has placed a clear emphasis on the role and important contribution of the forestry sector in its national commitment to reducing emissions (see Box 1). Secondly, forestry used to be a major source of state revenue. In 2001, 3.2% of GDP was from log production, and 20% of total export revenue was derived from wood products (Lao PDR 2005). The contributions of wood-processing industries and values associated with the subsistence use of wood and non-timber forest products (NTFPs) are not included in this figure. Thirdly, around 85% of the country's rural population relies on forest resources for various needs, with NTFPs providing important incomes for rural households. At the same time, there is significant external funding support for the forestry sector, but the degree to which these funds contribute to climate change mitigation and climate impacts have not been monitored sufficiently.

Box 1. Lao PDR's forestry sector NDC target in 2015

Mitigation:

- Increase forest cover to 70% of the country's total land area (i.e. to 16.58 million hectares) by 2020 through afforestation and reforestation, including industrial plantations and conservation of existing natural forests.
- Once the target is achieved, emission reductions will carry on beyond 2020.

Adaptation:

- Promote climate resilience in forestry production and forest ecosystems
- Promote technical capacity in the forestry sector for managing forest for climate change adaptation

Source: Lao PDR's first Intended Nationally Determined Contribution (INDC) 2015 (Lao PDR 2015)

This Infobrief highlights the progress of NDC implementation as perceived by key stakeholders in Lao PDR, and discusses opportunities, challenges and knowledge gaps that might enable or hinder effective implementation of the NDC. The Infobrief is the result of collaboration between the Faculty of Forest Sciences (FFS), National University of Laos (NUoL); the DCC under MoNRE; and the Center for International Forestry Research (CIFOR). It was developed based on literature reviews, in-depth interviews with six government agencies involved in developing and monitoring the NDC, and an expert panel discussion and national consultation workshop held on 11 October 2017 and 7 February 2020, respectively. This Infobrief also aims to provide ideas in support of more effective implementation of Lao PDR's forthcoming revised NDC, which it expects to submit in 2020.



A mosaic of farm, forest, and village landscape in Lao PDR. Photo by Moira Moeliono/CIFOR.

Progress made in Lao PDR's forestry sector NDC implementation to February 2020

Target	Progress made to February 2020
Mitigation	
Increase forest cover to 70% of country's total land area (i.e. to 16.58 million hectares) by 2020	Numerous climate change mitigation initiatives are implemented through provincial REDD+ action plans. However, most informants confirmed this target has not been met. There is uncertainty over the actual area of forest cover, estimated to be 58% or 13.2 million ha in 2015, while the 2019 inventory has yet to be published officially.
Order No. 15/PM-effectively restricts exports of logs resulting from illegal logging of natural forests across the country, believed to be the cause of deforestation	Under order No. 15/PM, the Government has banned the export of timber, semi-processed wood, roots, stumps, branches, and other parts of trees harvested from natural forest. Only exports of finished furniture and wood products that meet the Ministry of Industry and Commerce standards stated in agreement No. 2005/IC.MoIC, dated 28/9/2015 are permitted. Order No. 15/PM is now being enforced effectively.
Establish community/ village forests, seen as an important element of the decentralization of governance over forested areas	According to a representative of the Village Forest and NTFP Management Division of the Department of Forestry (DoF), no comprehensive, up-to-date data is available on the number of village forests, or areas under village forest management. Most stakeholders consulted stated how village forest management would be organized and operated in practice. Whether this provides environmental and social outcomes remains unclear, as no rigorous assessments have been carried out to date. Land-use planning has been carried out in a number of villages, but villagers' compliance with land-use plans has yet to be monitored effectively. Agricultural extension on land-use planning is limited. Though most provinces have technical agricultural extension centers, their operations are limited due to insufficient budget allocation.
Improve technical capacity and M&E systems	<ul style="list-style-type: none"> The Forest Reference Emission Level submitted to the United Nations Framework Convention on Climate Change (UNFCCC) states that a forestry sector Monitoring, Reporting and Verification (MRV) system is being developed to enable the monitoring and reporting of greenhouse gas (GHG) emissions in Lao PDR. Some progress has been made on Reducing Emissions from Deforestation and Forest Degradation (REDD+) and the plan to sell carbon credits based on result-based payments from 2025. Provincial REDD+ action plans have been established for six REDD+ pilot provinces in the country. The Green Climate Fund (GCF) has approved a project with the German Agency for International Development (GIZ) on an emissions reduction program in Lao PDR.
Adaptation	
Promote climate resilience in forestry production and forest ecosystems	In the past, the Government of Lao PDR allowed no private sector or community activities in any forest type. The recently approved forestry law allows private sector actors to conduct feasibility studies for plantations in degraded forest inside production forests. Article 59 of the forestry law (version 2019) states that timber and NTFP plantations can be established in degraded forest inside and outside three forest categories where natural regeneration is not possible. This indicates the Government is striving to increase forest cover through natural regeneration and the establishment of plantations on degraded forest and bare land.
Promote technical capacity in the forestry sector for managing forest for climate change adaptation	<p>Fast-growing trees are being promoted to stabilize soil erosion.</p> <p>Article 9 of the new forestry law encourages collaboration with other countries and regions on forestry and forest lands in order to exchange lessons, information, scientific research and technology, build staff capacity, and participate in the implementation of international protocols that Lao PDR is party to.</p>

Sources: MoNRE PowerPoint presentation, stakeholder consultation workshop in February 2020 and interview notes

Opportunities

Political commitment through new government policies and a legal framework for implementing and enforcing activities to achieve NDC targets

In 2012, management tasks for two forest categories were transferred from the Ministry of Agriculture and Forestry (MAF) to MoNRE. At the same time, two institutions working on REDD+ were developed: the REDD+ Division under the MAF's Department of Forestry (DoF), and the National REDD+ Office under MoNRE's Department of Forest Resource Management (DFRM) (Vongvisouk et al. 2016). In order to avoid overlapping responsibilities between the two ministries, the Government merged MoNRE's DFRM with MAF's DoF. At present, the REDD+ Division at DoF is the key national institution coordinating REDD+ in Lao PDR. However, DCC remains the key national climate change focal point working on preparing and submitting national communication reports to UNFCCC and meeting its Convention obligations.

A representative of DoF highlighted the importance of engaging various departments within MAF in a partnership process, as a number of departments within the Ministry work on cross-cutting food security and adaptation areas. The REDD+ Division at DoF is currently coordinating activities relating to REDD+, while the DoF's Forest Inventory and Planning Division (FIPD) is responsible for the national forest inventory and assessment of forest cover at the national level. These divisions receive both financial and technical support from different donors and organizations including the World Bank, GCF, and the Japanese International Cooperation Agency (JICA). In this regard, criteria for appropriate carbon credit transfer in the forestry sector should be taken into account, in order to meet the National Green Growth Strategy and Sustainable Development Goals, as part of the National Socio-Economic Development Plan (NSEDPP).

The Government has also established the Division of Village Forestry and NTFP Management under the DoF. This division is the key national institution coordinating all activities relating to village-level forest and NTFP management throughout the country. During the stakeholder consultation workshop in February 2020, a representative of this division underlined the importance of villagers managing forest resources at the village level. Since villagers are the actual forest resource users, they should play a role in forest resource management in village territories. The devolution of forest management and planning to villages would help efforts to increase forest cover across the country.

At present, the Government of Lao PDR is paying serious attention to developing a more ambitious NDC to help manage pressures from climate change-related disasters, such as flooding, droughts and landslides. Accordingly, building capacity and resilience to adverse climate impacts is a national emphasis and calls for international support, since Lao PDR is a carbon sink and vulnerable to the adverse impacts of climate change. Forest conservation and reforestation will not only absorb more carbon dioxide from the atmosphere, but will significantly increase the country's Ecosystem-based Adaptation (EbA) capacity against climate change-related disasters. Evidence of the Government's seriousness is its issuing of 142 laws, and preparation and revision of a number of laws and regulations concerning the management of key NDC priority areas in Lao PDR. In tandem with its development and revision of laws and regulations, the Government has also realigned institutions (including their terms of reference and responsibilities) in priority NDC sectors.

Although technical and financial capacity (in climate change mitigation and adaptation) are low in Lao PDR, the Government has opened its doors to technical and financial cooperation with donors, international organizations, and other countries to cope with environmental and climate change issues within the country.

A large number of projects are funded by donors to support both state and non-state actors in NDC implementation

Discussions during the stakeholder workshop in February 2020 highlighted the fact the forestry sector receives more donor support than other NDC target sectors. One of the main reasons for this is the Government of Lao PDR's clear national forestry strategy to increase forest cover to 70% of the country's total land area by 2020. Various donors are supporting the implementation of activities under this forestry strategy:

- The Forest Investment Program (FIP), supported by the Strategic Climate Fund (SCF), is focusing on institutional capacity building, forest governance, forest mitigation efforts, and investment outside the forest sector to reduce pressure on forests through activities such as alternative livelihood creation and poverty alleviation (OpenEI 2008).
- GCF is supporting Lao PDR on climate resilience and sustainable development. Activities include flood protection and water management, resilient agriculture and forest conservation. GCF funding also provides support with sustainable utilization of forest resources and implementation of the country's sustainable development goals (GCF 2019).
- Climate Protection through Avoided Deforestation (CliPAD), supported by the German Development Bank (KfW) and GIZ, is helping the Government of Lao PDR to establish national and provincial REDD+ frameworks and planning

processes. The project is also piloting mitigation activities and developing sustainable financing models for forest and biodiversity conservation in Lao PDR (CliPAD n.d.).

Before 2018, no integrated system was available for the monitoring, reporting and verification of GHG emissions, emission reductions from mitigation measures, and finance (Phongsas 2018). There was an MRV component in REDD+ that was quite advanced in terms of its formation and methodology. However, it was limited in capacity and unable to produce long-term estimates and integrated analyses. Since 2018, the Global Green Growth Institute (GGGI) has been working with MoNRE in developing a national MRV system that meets the Transparency Framework under the Paris Agreement (GGGI n.d.). Meanwhile, a United Nations Environment Programme (UNEP) project, funded by the Global Environment Facility (GEF), is being developed. APTly named the Capacity Building Initiative for Transparency (CBIT), this project aims to establish a national transparency system for domestic and international reporting under the Enhanced Transparency Framework of the Paris Agreement (CBIT 2019).

Challenges and factors hindering NDC implementation

Many reports and studies have documented and analyzed the challenges Lao PDR has faced in its efforts to achieve its NDC target by 2020. The most significant challenges for NDC implementation include the coordination system, insufficient financial support, and the capacity of technical staff and institutions (Phongsas 2018; Barletti et al. 2018; NDC Partnership 2019; GEF 2018). In addition, our study highlights the following challenges related to modalities for transformational change and the need for enhanced transparency.

Transformational change: addressing the root causes of unsustainability and a shift towards Green Development

The stakeholder workshop in February 2020 highlighted concerns that the NDC only addressed technical issues, but overlooked the core problem of deforestation and forest degradation being caused by large-scale infrastructure investment and land conversion. Common narratives and articulated discourses insist that communities are the main drivers of deforestation and forest degradation without accounting for these larger drivers. It is quite clear the Government of Lao PDR is focusing on reducing traditional shifting cultivation in the REDD+ pilot provinces in the northern part of the country, while overlooking the impacts of large-scale land investment in central and southern provinces. Indeed, with the new forestry law, private

companies are allowed to establish plantations on degraded areas of production forest in the expectation that doing so will help increase forest cover.

As is the case in many other developing countries, Lao PDR is seeking solutions through Green Development, Green Growth and Low Emission Development concepts, which promises to harmonize emissions reduction targets to development demands. Yet, both large-scale developments such as timber and commodity crop plantations, and local livelihoods remain largely land based and compete for land. Transformational change is needed based on a better understanding of the impacts of current land uses and the needs of rural people. For example, although rural electrification has reached 95% of communities, whether or not increased household access to electricity has reduced fuelwood and charcoal use, or reduced emissions from heating energy has yet to be assessed sufficiently. Lao PDR has set a target to increase forest cover to 70% of the country's total land area, including through large-scale plantations involving the private sector. However, the impacts of these plantations on forest cover, biodiversity and local livelihoods have also yet to be assessed fully.

There is a general lack of information to support transformational change. Even where information is available, often it is not integrated into the different strategic plans. For example, the NDC focus is on timber and increasing forest cover through tree planting activities. This overlooks non-carbon benefits, even though there is plenty of information available from the REDD+ experience. The new 2019 forestry law allows private sector involvement in establishing plantations in production forest areas. However, there is a need to consider the following questions: Can the authorities control the private sector? What impacts are there from the infrastructure necessary for establishing plantations? What impacts will there be on local communities?

As well, when a village forest is established with a focus on timber production, what impacts will it have on traditional uses and other non-carbon benefits? Will villages be able to harvest and sell timber, or are village forests primarily for supporting the increased forest cover target? In the case of the latter, what benefit will there be for villages? Regarding MRV, the percentage of forest cover has increased in numerical terms, but what has changed on the ground? What trees are being planted, and is quantity taking precedence over quality?

Transparency and accountability

The Paris Agreement emphasized the need for an enhanced transparency framework through an improved MRV system. To this end, Lao PDR needs to improve its institutional arrangements, and develop a more comprehensive system for monitoring and reporting NDC implementation. This will

require two things: strengthening coordination between relevant ministries (GEF 2018) and more intensive capacity building on data collection and management. Currently, the task of NDC coordination is the responsibility of the DCC. During the recent stakeholder workshop, the slow progress being made on Lao PDR's NDC was attributed to the coordination system, capacity and high staff turnover in the target sectors. Finance is another challenge for NDC implementation in Lao PDR, where the Government is heavily reliant on donors.

Governance structure and institutional setting

Institutional arrangements for the NDC are underdeveloped. According to stakeholder interviews, the NDC is currently the responsibility of the DCC under MoNRE, while other national institutions, including those in target sectors, do not really implement NDC plans. This indicates a lack of understanding and commitment in these sectors. Therefore, we suggest the following measures:

- Appoint a climate change focal point at each line ministry and integrate the NDC including its MRV into the existing mechanism for the National Socio-Economic Development Planning Process.
- Develop a stronger strategy and regulatory framework stipulating the roles and contributions of sub-national and local actors in implementation of the NDC.
- Strengthen existing policies and regulatory frameworks for certain forms of development, and ensure the Climate Change Decree, approved in 2019, addresses local contributions.

This might also result in better coordination and information sharing between relevant sectors and local researchers, and support the development of adequate and accurate information, and progress with the NDC in Lao PDR.

The roles of sub-national governments in meeting NDC targets are not explicit in the NDC document. Although it states that MoNRE will establish "effective arrangements for liaison with line ministries responsible for aspects of the NDC, international stakeholders and development partners, at national and local levels to facilitate implementation of the NDC" (Lao PDR, 2015), under capacity building it also states the requirement to develop the technical NDC implementation capacity of governments, from national to local levels.

Institutional framework for MRV

A major challenge in the Lao PDR context is the lack of an institutional framework to support the collection of data in a consistent, reliable and regular manner. According to a scoping study carried out by IGES and the National Environmental Agency in late 2018, Lao PDR has no framework in place for the Monitoring, Reporting and

Verification of GHG emissions (IGES and RCS 2019). While the MRV system for REDD+ is the most advanced, little progress has been made with MRV in other NDC priority areas.

Support on the development of MRV system has been evolving around the establishment of a national GHG system. GHG data is collected at the local level, analyzed and reported to the national MRV system. Local MRV systems are underdeveloped and unable to produce consistent, reliable and regular data to feed into the national database. Institutional arrangements and technical capacities need to be in place at all levels, and adequate for generating and reporting data for use in monitoring NDC progress.

Existing sectoral policies, strategies and programs could provide opportunities for the establishment of an MRV framework in a bottom-up manner, where all mechanisms for reducing emissions, such as Nationally Appropriate Mitigation Actions (NAMAs) and REDD+, can be included. Lao PDR could also capitalize on experiences acquired nationally from its participation in market-based mechanisms, such as the CDM; especially in the context of future developments under Articles 6.2 and 6.4 of the Paris Agreement. Other opportunities could be considered in relation to the development of the national REDD+ MRV framework. For example, the potential for issuing emission reduction units from REDD+ projects and their utilization either as Internationally Transferred Mitigation Outcomes (ITMOs) or offsetting instruments in the context of an international carbon market in ASEAN or beyond.

Capacity building for MRV

There is a general lack of climate change capacity building, especially at the sub-national level, which is one barrier preventing local governments from contributing to NDC achievement. Mitigation capacity building, in particular, is needed at local levels for feasibility studies, mitigation analysis and policy development for example. Adaptation capacity building is needed for: understanding climate change impacts; adaptation measures including technical requirements such as drought- and flood-resistant crop varieties; research into new crops and climate resilient technologies; and how adaptation measures will impact communities.

Supporting the discussion above on data availability, there is a general consensus in other studies on the lack of technical skills in using methodologies and tools to collect and analyze accurate data. Data accuracy and availability remains a challenge. For example, at the stakeholder workshop in February 2020, a Government official stated that the country lacks comprehensive, up-to-date statistics and figures on the exact area and number of villages managing village and customary forests. This lack of essential data might undermine the potential and roles of all sectors in contributing to NDC priority areas.

Transparency is another problem, where collected data, methodologies and analysis results are not shared. As a result, each sector relies on its own data and methodology. As mentioned earlier, different sectors use different figures and data, which impedes assessment of actual progress, and makes it difficult to determine the extent to which these sectors contribute directly to climate change mitigation and adaptation. Further, different sectors have different targets, and combining all sectors into one overall target is not easy, especially as there is no sharing of data, budget information and methodologies across sectors.

Lack of funding and finances for NDC implementation

Most organizations interviewed highlighted the lack of adequate and sustainable funding as a major barrier to effective NDC implementation. The Government does not have the budget necessary to support all NDC activities. Although Lao PDR receives significant donor funding, for the forestry sector, for example, donors have their own visions and missions. Without better coordination, targets and activities proposed and funded by multiple donors tend to overlap, resulting in ineffective implementation. A centralized national financing coordination arrangement mechanism needs to be set up, which might be possible under the existing Environmental Protection Fund (EPF).

Conclusion

In 2015, Lao PDR was the first country in Asia to submit its NDC. NDC implementation has received significant political commitment, financial resources and technical support from both state and non-state actors in order to achieve its targets. Building on national development and environmental protection policies, the NDC is aimed at making full use of existing institutional capacity and financial resources, and embedding its targets in existing policies and planning. The Government of Lao PDR is revising its 2015 NDC for a 2020 NDC submission in November 2020.

To date, NDC results have been mixed. Some sectoral NDC targets, such as the energy target, have been met by 2020. For example, 95% of rural communities now have access to electricity compared to the initial 90% target. However, the forestry target of increasing forest cover to 70% of the country's total land area by 2020 has yet to be achieved. Major challenges impeding the country's efforts to achieve its forestry sector NDC targets include: unclear policies and measures for addressing major drivers of deforestation and forest degradation; the lack of available funding to implement proposed activities; the lack of transparent, accurate and available data and credible methodologies for measuring outcomes; weak governance and a lack of coordination.

In order to achieve and enhance current NDC target ambitions, policies, measures and enabling conditions for transformational change (e.g. funding availability, national ownership, cross-sector collaboration, results-based payment mechanisms, and clarity over carbon and non-carbon benefits) need to be in place. Focusing only in improving technical capacity, while overlooking the complexity and political economy of drivers of deforestation and forest degradation and forest governance issues will not result in effective, efficient and equitable NDC implementation.

Knowledge gaps that need addressing in order to provide credible evidence for the Government and donors to revise and adapt NDC targets, and better implement NDCs include: rigorous impact assessments of existing policies and initiatives on forest protection and development outcomes; and an integrated sectoral assessment on how realistic and feasible NDC targets could help achieve national environmental, social, and economic development goals.

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