Tree Plantations in Lao PDR: Policy Framework and Review

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ABOUT THE PROJECT

This project “Improving policies for forest plantations to balance smallholder, industry and environmental needs” is being supported by the Australian Centre for International Agricultural Research (ACIAR), together with the Governments of Lao PDR and Vietnam and is being undertaken by Australian universities and research partners in the two countries. The aim is to provide policy options that achieve national goals for forest plantation industry development in Lao PDR and Vietnam through improved linkages between commercial investment and smallholder production.

The project has three objectives:

1. To develop policy and institutional options for plantation development;
2. To understand the positive and negative social, economic and environmental impacts associated with different approaches to tree plantation development;
3. To create a network for policy learning that builds capacity in plantation sector policy analysis, development and implementation.

These objectives require research to evaluate current policies, policy options, and their likely impacts on policy goals.

How well do current policy arrangements for tree plantation development in Lao and Vietnam support national development goals for smallholder involvement and what are the challenges and gaps in policy to meet these goals?

This research project will evaluate current policies and identify key issues for resolution in order for plantation development to meet the goals of national governments and local communities.
DISCLAIMER

This report was prepared as a research output from Project FST/2014/047, “Improving policies for forest plantations to balance smallholder, industry and environmental needs in Lao PDR and Vietnam” funded by the Australian Centre for International Agricultural Research (ACIAR). The Project's aim is to improve policies for forest plantations, to balance smallholder, industry and environmental needs. The contents and views represent the views of the authors and do not necessarily represent the views of the Government of Lao PDR, the Australian Government, or of ACIAR.

The statements and opinions contained in the report are given in good faith but, in the preparation of this report, the authors have relied, in part, on information supplied from other sources, or from documents and interviews held in Lao and translated into English. The report has been prepared with care and diligence, however, except for those responsibilities which by law cannot be excluded, no responsibility arising in any way whatsoever for errors or omissions (including responsibility to any person for its negligence), is assumed by the authors or contributors for the preparation of this report.

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1. EXECUTIVE SUMMARY

The Government of Lao PDR has social, economic and environmental objectives for tree plantations that are derived from national socio-economic development goals. Achieving these objectives requires a well-designed and enabling policy environment. This document provides an overview and review of current policies. It will be used for further policy analysis by identifying key issues, gaps and leverage points and to identify options for improving policies for plantations.

Lao PDR has transformed through development over time, from the pre-colonial and colonial eras through the Indo-China war period, to independence in 1975 and as a result of increasing exposure to regional and global trends and opportunities. These trends are reflected in past and current policies which have also been influenced by and linked to the receipt of development assistance, and therefore to motivations of donor countries and organisations. Policy also reflects the overt or, sometimes hidden, motivations of the policy makers and their complex internal relations as well as with neighbouring countries.

Forest policy in Lao PDR has evolved from an initial focus on subsistence use and local trade in forest products, to poverty alleviation via forest land allocation to villages and households and subsequently increased industrial development based on exploitation of natural forests and government revenue from log exports. More recently there has been a focus on forest conservation. Tree plantation policy has similarly followed this path of supporting contributions to local livelihoods through to industrial development via foreign investment and landscape level restoration.

The Forestry Strategy 2020 (FS2020) is the primary sectoral strategy for forestry, including plantations. It was initiated as one of the policy dialogue activities at the 7th United Nations Interagency Round Table Meeting in September 2000. The objectives of this strategy are capacity building, reducing the deterioration of forest resources, development and enforcement of laws and regulations, sustainable management of production forests, promotion of commercial tree planting by individuals, groups, organizations, small and medium scale companies and foreign and national investors, sustainable wood supply and domestic processing, forest ecosystem and soil and water conservation, effective use of forest revenue, and sustainable management of non-timber forest products. It includes a target to restore the extent and improve the quality of the forest estate through supporting natural regeneration of 6 million hectares of forest and establishing 0.5 million hectares of tree plantations on unstocked forest areas.

The Five-year Agriculture and Forestry Development Plan (2016-2020) supports certification of production from native forests, village forest development, procedures for sale of forest carbon credits and the development of improved regulations, rules and strategies for forests.

Strategies on National Growth and Poverty Eradication, Environment, Land, Agricultural Development, Exports, Climate Change and Biodiversity also impact on forest and tree plantation management.

Many of the forest and broader development related strategies are underpinned by target-driven indicators that may send a clear signal of commitment, but which may not be particularly useful in understanding policy effectiveness or in pointing to areas that need reform. For example the plantation area target has become a key indicator of success but, in reality, this provides little indication of whether policies for plantation development are achieving their desired objectives.

The implementation and enforcement of these strategies and laws is complicated by an administration and governance structure based on a principle of ‘centralised decentralisation’ that gives authority to provincial and district agencies to make locally specific rules but which is based on centrally determined procedures. This has also created a convoluted regulatory process for plantations and plantation grown wood. Many of these arrangements were designed to provide control over the harvest and sale of timber from natural forests and to provide a flow of revenue to support provincial and district agencies.
The result is a complex combination of policies, laws and agency responsibilities that govern the establishment and management of tree plantations and the sale, transport, processing of plantation timber in Lao PDR and export to other countries. The perception is generally that these arrangements have failed to deliver their anticipated benefits, they lack legitimacy, are inaccessible, often unknowable or unenforced, with a resulting lack of compliance. Meeting the standards demanded by consumer countries remain a challenge.

Under past and current arrangements a diverse set of plantation production systems has emerged in which many actors may participate in the production of plantation grown wood. Different systems involve different investments of land, labour, capital, technology and markets by different actors. The current resource is consequently diverse in terms of species, age-class, condition, ownership arrangements and availability to market.

Plantation timber also flows along several value chains that may generally quite distinct and easily separated from natural forest wood. Plantation wood is used locally, by domestic industries or is exported mostly as raw logs or in marginally processed forms. The domestic wood products industry is immature and typically unable to compete with international markets. Transaction costs along supply chains are relatively high and a significant proportion is made up of taxes and charges by government at all levels.

There is a clear need for reform and simplification of current policies and regulations if investment in tree plantations by larger industry participants or smallholder growers is to meet national goals for industry development, poverty alleviation, forest restoration and environmental protection.

Investment in institutional capacity at the central level is needed to develop and facilitate the implementation of plantation policy.

2. PRELIMINARY RECOMMENDATIONS

Based on the review of policies undertaken a number of preliminary recommendations can be made, that the Government of Lao PDR:

1. Continue its current review of tree plantation policy to provide a simpler and more transparent policy framework for the promotion, establishment, management and production and use of plantation grown wood.
2. Clearly indicate an overall vision for the tree plantation sector, spelling out the multiple objectives for plantations, the ways in which these objectives can be achieved and how the benefits and costs of different types of plantations will be distributed.
3. Clearly differentiate tree plantation policy and regulations from those governing management, harvest and use of wood from natural forests.
4. Simplify and clearly indicate the agencies and levels of government responsible for different aspects of plantation development and use of plantation wood.
5. Develop mechanisms to clearly communicate these policy arrangements and responsibilities to all levels of government and other industry and community stakeholders.
6. Build capacity within these agencies based on a new governance rationale aimed at facilitating plantation growing and wood use rather than capturing revenues for government. This includes investment in research and extension and advisory capacity to smallholder growers.
7. Invest in broader inventory of tree plantation resources and their capacity to contribute to potential wood supply, including trees on farms, village plantations and different levels of private ownership and undertake regular assessments of the usage and value added to plantation grown wood.
8. Consider potential financial mechanisms to support cooperative research between the processing industry, and larger private and smallholder growers.
9. Establish mechanisms for regular evaluation and review of tree plantation policies
10. Provide for ongoing investment in the process of policy making
11. Build capacity in the enforcement of plantation regulations.
3. SYNOPSIS OF PLANTATIONS IN LAO PDR TO 2015

There has been a concerted program of plantation development in Lao PDR since 1975 (Figure 1) and rates of establishment have generally increased in the past 40 years. By 2015 there were an estimated of 446,000 ha of plantations in the country (DoF 2015).

**Figure 1: Annual Plantation Establishment in Lao PDR 1975-2015**

Of the current plantation area, over 50% is rubber plantation with smaller areas of teak, eucalyptus and acacia, agarwood, and other, mostly indigenous, species.

**WHAT IS A PLANTATION?**

There are various definitions of plantation that are applied in policy and in literature. The terminology remains somewhat ambiguous, and confusion leads to misunderstandings and to suboptimal policies (Batra and Piraud 2015).

Currently, the international definition of forests adopted by FAO on the advice of its member states identify “planted forests” as part of the spectrum of forest types - it covers a range of ecosystems from semi-natural forests where trees were planted with subsequent light management, to strictly man-made tree plantations with short rotations (Batra and Piraud 2015). Under this definition, “tree plantations” are a subset of planted forests, corresponding to the “Productive Plantation” category of “Planted Forests” (Figure 2, after Carle and Holmgren 2008).
In Lao PDR there is no specific definition of a ‘plantation’ in the Forestry Law, although subordinate instruments define planting parcels and planting systems. Assessment of forest cover applies the FAO classification, thus as defined by MAF current forests include natural forest and plantations of parcels at least 0.5 ha in size, of which at least 20% of the crown cover comprises trees that will reach a height of at least 5 m after maturity. Plantation forests include rubber plantations but exclude coffee, tea and fruit tree plantations. Contrary to the definition of “forest” (above), however, young tree plantations with less than 20% crown cover are also considered Plantation Forest and consequently included within the ‘current forest’ estate (Lestrelin et al. 2013).

Tree plantations may be established in a variety of planting patterns and silvicultural arrangements including:

- Mono-culture plantation – single wood producing species
- Mixed species - more than one wood producing species planted together
- Intercropping - one or more wood producing species inter-planted with non-wood producing trees or plants (e.g. coffee, rice, cassava)
- Complex agroforestry - multiple wood producing and non-wood producing trees/plants established in an area, often resulting in a complex multi-layered structure
- Scattered/boundary plantings - one or more species of wood-producing trees planted in low densities to demarcate property boundaries or protect land (e.g. paddy boundaries, wind rows).

Tree planting parcels are defined in Regulation No 196/MAF (2000)¹ as an ‘operation approved by the State to plant trees on an area of degraded forestland >1600 m²’. Agroforestry (intercropping) and scattered planting systems are also recognised under Regulation No. 0196/MAF (2000) which specifies that there are only two formally recognised tree planting systems:

- ‘Planting in a parcel’, which includes:
  - a defined planting pattern (1.5m x 1.5m or 2m x 2m or 2.5m x 2.5m), with an initial stocking of not less than 1100 trees/ha, with trees planted in a monoculture.
  - an agroforestry planting method with defined spacing of not more than 6m x 2m or not less than 800 trees/ha in the lowlands and 8m x 2m or not less than 600 trees/ha in the mountains, intercropped.

¹ Regulation No. 0196/MAF concerning the development and promotion of long-term plantations 2000
‘Scattered planting’ with trees planted in clusters, rows or scattered. Regulations also determine those arrangements which make planted trees eligible to be registered as a plantation. Directive No. 1849/AF (1999) concerning the registration of tree planting parcels requires that tree planting parcels must meet the following conditions in order to be registered as a plantation:

- have an area of 1,600m² (or 1 rai) and more,
- trees must be not less than 3 years old,
- survival rate of trees must be higher than 80%,
- spacing is dependent on tree species but must be at least 2 x 2m, 3 x 2m, 3 x 3m, 5 x 2m,
- tree height must exceed 5m and 3m for fast growing and slow growing trees respectively.

Scattered trees and boundary plantation are not eligible to be registered as plantation but their ownership may be certified.

Both long and short rotation plantations occur in Lao PDR with the variation based on the species, the desired products and the investment goals and ownership of the plantation or plantation land. Investment in plantation has dominantly been through the establishment of smallholdings by farmers or through corporate investment by domestic and foreign entities. While corporate investment has been aimed at the production of specific wood products, plantations established by households have been integrated into livelihood strategies for a variety of purposes.

Plantations are geographically dispersed throughout the country and the location of plantation investment projects (not including household plantations) have been mapped (Figure 3: Location of Forestry Sector Investment Projects).

Figure 3, Source Lao Decide, current in 2010. Significant areas of plantation smallholdings, established by individual households also exist, including, for example, around 15,000 ha of teak plantations in Luang Prabang Province (Boer and Seneanachack 2016), but these have not be comprehensively mapped across all provinces.

Historically the main products from plantations have been round logs, square logs and semi-processed timber for direct export. Domestic processing and manufacturing has developed slowly and while the contribution of plantation grown wood has increased, the volume has remained proportionally low when compared with timber from natural forests.

**PLANTATION AREA**

Data from the Department of Forestry (DoF 2015) indicates the total area of planted forests in Lao PDR to be approximately 446,000 ha, comprising, teak, eucalyptus and acacia, agarwood, rubber and other species (Figure 4). Of this over 50% is rubber plantation.

The main known sources of plantation grown wood are smallholder teak plantations (Tectona grandis; ‘mai sak’) and Eucalyptus and Acacia from largely investor owned/managed plantations. Other species grown in plantations such Agarwood (Aquilaria Crassna; ‘mai ketsana’), Benzoin (Styrax tonkinensis, ‘mai nyarn’) and Yang (Nothaphoebe umbellifiora, ‘mai bong’) are not typically grown for timber products, but rather are harvested for aromatic wood, resin or bark for processing into incense or oil. Pink Mampat (Cratoxylum formosum/ Cratexylon prunifolium ‘mai tiew’) is grown under (typically) a coppice system for white charcoal, and other native species that have been planted include Pterocarpus macrocarpus, Alzeleia xylocarpa and Alstonia scholaris although the exact areas and production volumes are unknown. Several of these species are promoted for planting during National Arbor Day but precise records of the area of plantings and survival are not kept.

Rubber is established principally for latex, and there is currently no formal value chain for rubber-wood in Lao PDR, although anecdotally rubber wood logs are being exported to China from northern Lao PDR, in areas where plantations are being harvested due to low latex prices.
Around 54,000 ha of new plantations are needed to be established between 2016 and 2020 to reach the 500,000 ha target within FS2020.

There are potential inaccuracies with the plantation data:

- Concessions may be issued for a timber plantation (a known total of around 117,000 ha, refer Table 2), but for a variety of reasons, trees have not been planted or, in the case of smallholdings may have failed. A 2002 survey of *E. camaldulensis* plantations established with ADB finance in Vientiane and Savannakhet provinces found frequent failures or very low growth rates in smallholder plantations and higher growth rates and survival in plantations established by commercial firms and self-financing planters. The low growth rates experienced were not representative of the potential of the sites, rather a symptom of inexperienced management by small growers.

- Statistics on areas planted are held in district records, however the precise area of a plantation is not known until it is registered, at least three years after planting. For smallholder teak plantations it has been is estimated that less than 10% are registered (Smith 2014). In many districts records have been lost or have deteriorated.

- Registration may overstate the area that is planted in order to increase the area to which land tax exemptions apply. For example, areas that have not yet been planted may be included or areas that have been recently harvested remain within the registered boundary.

- Registration may include areas that have not been planted in order to provide for boundary demarcation and tenure security, including with respect to potential claims for compensation due to compulsory land acquisitions and the granting of concessions.

- Areas planted under complex agroforestry arrangements and which do not meet the specifications for plantations in the regulations, are not included although they may contribute to timber supply.

- Other horticultural systems, such as mango orchards, may contribute to wood supply, but may not be included in the plantation statistic because they are viewed as an agricultural crop.
• Plantings of scattered trees, although legally recognised, are difficult to map (Boer and Seneanachack 2016) and are unlikely to be formally registered.
• Data may not take into account plantations that have been harvested or converted to another land use type.
• Central databases and inventories may not be up-to-date.

PLANTATION OWNERSHIP

Castella et al. (2009) describe a typology of ownership and investment arrangements for rubber plantations, which is useful to explore other types of plantation regime (Table 1), including those that have emerged in Lao PDR.

Table 1: Typology of Plantation regimes

<table>
<thead>
<tr>
<th>Regime</th>
<th>Land</th>
<th>Labour</th>
<th>Capital</th>
<th>Market</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallholder (5+0) with own capital</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Smallholder (5+0) with government officials</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Contract Farming 4+1 smallholders (credit)</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Contract Farming 3+2</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Contract Farming 2+3</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Contract Farming 1+4</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Concession Farming</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

Note: ● = farmer inputs; ■ = company inputs

Plantations have been established under a variety of ownership and investment arrangements; they may be planted and owned by the Government, domestic or foreign companies, as joint ventures (as joint ventures with the government, by organisations, groups or individuals). Applying the typology proposed by Castella et al. (2009) these include, for example:
• 5+0 smallholder plantation established with their own capital, e.g. teak farmers in Luang Prabang
• 4+1 smallholder plantation establishment financed through a bank loan/credit
• 4+1 smallholder plantation established with government or development partner inputs, e.g. teak farmers
• 2+3 contract farming in which the land and labour are provided by the farmer/village, e.g. e smallholders in Luang Namtha
• 1+1+3 in which the land is provided by the village, labour by households and other inputs provided by the company, e.g. Eucalyptus plantations in Vientiane province
• 1+4 contract farming, in which only the land is provided by the farmer, which is leased by the company, e.g. in Hinheb District, where individual households are paid for a 30 year lease of land and other inputs are provided by the company
• 1+4 in which farmers provide only the labour and the company provides the other inputs, for example Birla Lao eucalyptus plantations
• 0+5 Concession farming - in which company (foreign or domestic) rents the land from the government and provides all other inputs

Table 2 provides an overview of foreign company owned timber plantations in Lao PDR. Some of these also include arrangements with smallholder and villages for access to land under contractual arrangements. For example Burapha Agroforestry promotes extension activities that focus on plantation management and marketing skills for smallholders. They have plantation areas that are established on village land and for which local people are a source of labour. Oji also supports up to 3000 ha of smallholder Eucalyptus and Acacia plantations, while Birla Lao Pulp & Plantation has a eucalyptus plantations grower scheme of 500 ha for which the land is owned by smallholders.
Table 2: Foreign investment in timber plantations in Lao PDR

<table>
<thead>
<tr>
<th>Company/Activity</th>
<th>Site</th>
<th>Area (ha)</th>
<th>Concession period (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Paper</td>
<td>Savannakhet</td>
<td>9,235</td>
<td>50</td>
</tr>
<tr>
<td>Birla Lao Pulp &amp; Plantation</td>
<td>Savannakhet/Khammouane</td>
<td>50,000</td>
<td>75</td>
</tr>
<tr>
<td>Oji Lao Plantation Forest Company.</td>
<td>Bolikhamxay, Khammouane</td>
<td>50,000</td>
<td>50</td>
</tr>
<tr>
<td>Oji South Lao Plantation forest Company.</td>
<td>Champasak/Saravahn/Xekong/Attapu</td>
<td>24,974</td>
<td>40</td>
</tr>
<tr>
<td>Burapha Agroforestry</td>
<td>Vientiane Province</td>
<td>2,000</td>
<td>30</td>
</tr>
<tr>
<td>Stora Enso Company.</td>
<td>Savannakhet/Saravahn</td>
<td>2,000</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>115,732</td>
<td></td>
</tr>
</tbody>
</table>

Smallholder plantations are also diverse. The majority of teak plantations are owned by individual farmers, with an average parcel size of less than 1 ha (Smith et al. 2016). In Luang Prabang it is estimated that there are possibly over 15,000 plantation owners. Larger areas, up to around 20 ha in size may be owned by absentee owners, who may be either farmers who have recently moved into more urban centres or which have been acquired overtime by entrepreneurs. For many of these plantation owners securing land use rights is a primary benefit.

Sikor identifies three “ideal types of household” to illustrate the range of practices associated with investment in and financing of plantations by households:

- ‘Survival-focussed households’ concentrate on meeting their immediate needs, primarily food and basic consumer items, and possibly saving a small surplus as a buffer against unexpected expenses.
- ‘Surplus oriented households’ are more likely to integrate plantations into the household economy, each year, seeking to maximise surplus from all their activities combined.
- ‘Investment-oriented households’ make decisions about plantations independently of other livelihood decisions.

Understanding this differentiation is important because it impacts the effectiveness of policy measures designed to influence the behaviour of plantation owners particularly those that are aimed at increasing length of plantation rotations, altering the types of products and the timing and magnitude of harvesting events. It may also influence how they comply with regulations (Smith et al. 2016, Smith 2016).

Table 3 summarises the major plantation investment models of major plantation species in Lao PDR.

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3 These represent approved total areas, and progress is not reported for all companies.
Table 3: Plantation investment models of major plantation species

<table>
<thead>
<tr>
<th>Species</th>
<th>Model</th>
<th>Ownership arrangements</th>
<th>Products</th>
<th>Rotation Length</th>
<th>Labour Arrangement</th>
<th>Intent</th>
<th>Investment perspective of owner</th>
<th>Investment timeframe</th>
<th>Livelihood perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teak</td>
<td>5+0</td>
<td>Farmer</td>
<td>Sawlog, Poles, Rounds (offcuts)</td>
<td>15-30 years</td>
<td>Self-employed</td>
<td>Land Security, Cash needs, Income</td>
<td>Integrated</td>
<td>Long</td>
<td>Surplus, Survival</td>
</tr>
<tr>
<td>Teak</td>
<td>4+1</td>
<td>Absentee owner</td>
<td>Sawlog, Poles, Rounds (offcuts)</td>
<td>15-30 years</td>
<td>Contracted</td>
<td>Land Security</td>
<td>Standalone</td>
<td>Long</td>
<td>Investment</td>
</tr>
<tr>
<td>Agarwood</td>
<td>2+3</td>
<td>Farmer</td>
<td>Resin, Wood</td>
<td>7-10 years</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>Standalone</td>
<td>Long</td>
<td>Investment</td>
</tr>
<tr>
<td></td>
<td>1+4</td>
<td>National Company Joint venture</td>
<td>Charcoal</td>
<td>6 year - coppice</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>Unknown</td>
<td>Short</td>
<td>Investment</td>
</tr>
<tr>
<td>Pink Mampat</td>
<td>2+3</td>
<td>Joint venture National Company</td>
<td>Sawlog, Woodchip/pulp log, Poles, Round log</td>
<td>7 years</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>Standalone</td>
<td>Short</td>
<td>Investment</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>1+4</td>
<td>Foreign Company</td>
<td>Sawlog, Woodchip/pulp log, Poles, Round log</td>
<td>7 years</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>Standalone</td>
<td>Short</td>
<td>Investment</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>2+3</td>
<td>Joint Venture (GoL + FDI)</td>
<td>Sawlog, Woodchip/pulp log, Poles, Round log</td>
<td>7 years</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>Standalone</td>
<td>Short</td>
<td>Investment</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>0+5</td>
<td>National Company</td>
<td>Sawlog, Woodchip/pulp log, Poles, Round log</td>
<td>7 years</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>Standalone</td>
<td>Short</td>
<td>Investment</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>4+1</td>
<td>Farmers</td>
<td>Energy</td>
<td>7 years</td>
<td>Self-employed</td>
<td>Income</td>
<td>Integrated</td>
<td>Short</td>
<td>Surplus</td>
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<tr>
<td>Species</td>
<td>Model</td>
<td>Ownership arrangements</td>
<td>Products</td>
<td>Rotation Length</td>
<td>Labour Arrangement</td>
<td>Intent</td>
<td>Investment perspective of owner</td>
<td>Investment timeframe</td>
<td>Livelihood perspective</td>
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<tr>
<td>Acacia</td>
<td>1+4</td>
<td>Joint Venture (GoL + FDI)</td>
<td>Sawlog, Woodchip, Poles, Energy (charcoal/firewood)</td>
<td>7</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>standalone</td>
<td>Short</td>
<td>Investment</td>
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<tr>
<td></td>
<td>2+3</td>
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<tr>
<td>Rubber</td>
<td>5+0</td>
<td>Farmer</td>
<td>Latex</td>
<td>30 years</td>
<td>Self-employed</td>
<td>Land Security, Cash needs, Income</td>
<td>Integrated</td>
<td>Long</td>
<td>Surplus</td>
</tr>
<tr>
<td>Rubber</td>
<td>1+4</td>
<td>Foreign Company/Joint Venture National Company</td>
<td>Latex</td>
<td>30 years</td>
<td>Contracted</td>
<td>Revenue generation</td>
<td>Standalone</td>
<td>Long</td>
<td>Investment</td>
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4. PLANTATION POLICY SETTING

Policies for tree plantations in Lao PDR have their basis in national socio-economic development objectives. The role of plantations has transformed overtime as the country has transitioned through a development process, influenced by increasing exposure of regional and global trends and opportunities. This history is summarised in a schematic overview in Figure 54.

The following sections describe in more detail the relevant recent national strategies, plans, policies and processes that apply to plantations in Lao PDR.

STRATEGIES, PLANS AND POLICIES

As a signatory to the Paris Declaration for the Least Developed Countries for the 1990s Lao PDR implemented a Program of Action for socio-economic development. Following policies in favour of market-oriented economic reforms and liberalisation that emerged in the late 1970s, and which were promoted through the "New Economic Mechanism" (NEM) in 1986 (see Yamada 2013), efforts were focused on macro-economic stability, fiscal adjustment, the introduction of defined property rights, the promotion of private sector activities and restructuring of the public sector to improve efficiency in meeting the demands of the new market economy. Some state owned enterprises were privatised, banking sector and prices were also liberalised with foreign investment promoted under more liberal policy regimes. Legal and governance reforms were undertaken with the aim of supporting the new market-oriented approach.

NATIONAL SOCIO-ECONOMIC DEVELOPMENT PLANS

In 1996 the National Assembly adopted a Long-Term Strategy of Socio Economic Development to the Year 2020 as the overriding development policy, defining broad goals, strategies and guiding principles for the country. Within this plan, the Government of Lao PDR (GoL) set up 8 national priority programs:

- Food production;
- Commercial production;
- Eradication of shifting cultivation and resettlement of shifting cultivators;
- Rural development;
- Infrastructure development;
- Foreign economic relations;
- Human resources development;
- Services development (covering tourism, trade, banking and finance).

Ongoing implementation of the Long-Term Strategy of Socio Economic Development is supported by five-yearly National Socio-Economic Development Plans (NSEDPs), which provide more detailed sectoral strategies and frameworks for prioritizing the Government’s expenditure programs, expressed in its annual budgets. Arising from the five-year plans are short-term (annual) development plans which are aimed at transforming Party policies into government policies, development programs and projects, and which may be used to monitor and adjust the implementation of the Five-Year plan. Meeting the targets set out in the various strategies has been a key driver in the development of policy measures in Lao PDR.

The 8th NSEDP (2016-2020) formulation process coincided with the conclusion of the Millennium Development Goals (MDGs) and the roll out of the post-2015 development agenda “Sustainable Development Goals” which were adopted at the UN General Assembly in September 2015.

The 8th NSEDP (2016-2020) was launched in April 2016 and highlights many issues learned from the implementation of previous plans including:

4 Sources: Ohlsson and Inthirath (2001), Phimmavong et al. (2009), Smith 2014, Kim and Alounsavath (2015)
With respect to economic development, it notes that “socio-economic development based on [a] market economy mechanism that [is] managed and regulated by the government within a comprehensive system is a key for the development of socialist orientation”.

With respect to sustainable development, it observes that “[E]conomic growth has mostly been based on the natural resource sector which is unsustainable. Economic development in the future should give more priority to non-resource sectors, particularly development of small and medium-sized enterprises both in terms of quantity and quality”.

The main approaches of a sustainable development strategy for Lao PDR include an increasingly integrated market economy, sound macroeconomic policies, highly skilled labor, functioning institutions and strong basic infrastructure. The plan recognises challenges to doing this in limited development funds and high public debt, insufficient and weak institutions and a poor legal framework. Social drawbacks persist and climate change related natural disasters, such as droughts and floods, continue to impede development.

Modernization and industrialisation are key themes within the plan which focusses on industry, services and food security, with environmental protection and more effective use of natural resources. This requires a strong political and governance system under the leadership of the Lao People’s Party, working under the premises of government for the people and by the people with effective rule of law protecting people’s rights and an enhanced administrative system which follows the Sam Sang directive.

THE NSEDP PLANNING PROCESS

The NSEDP development planning process is intended to be an integrated area based approach to ensure the consideration of initiatives across different sectors in a given geographic area. The process begins with the issuance of an instruction from the Party congress outlining overall national policies, priorities, targets and guidelines for the next plan period from the government to line ministries/sectors, provincial and district (refer Appendix 1). Ministries/Sectors prepare and issue their guidelines to their line organisations (Departments) for the development of provincial level plans. The sectoral plans derived from the provinces are reviewed during three regional meetings (northern, central, southern) and separately forwarded to line ministries. Based on the regional and ministerial plans, the State Planning Committee (SPC) prepares the National Plan and an Investment Programme for submitting to the government for consideration and endorsement. Once the National Plan and Investment Plan have been reviewed and endorsed, they are forwarded to the National Assembly for adopting, and instructions are prepared for implementation.

As a result of policies of decentralization, authorities have recently been instructed to enhance the participation of local communities in the formulation and implementation of development plans. This strategy reflects a move towards de-concentration of planning and budgeting responsibilities associated with the Sam Sang policy (the “3 Build directive” described further below). At the same time, it articulates the dual function of disseminating top-down directives and guidelines to the village level, while identifying and integrating local development needs and problems from the “bottom-up” into national socio-economic development plans. In 2013 Guidelines on District Socio-Economic Development Planning (DSEDP) were issued by the Ministry of Planning and Investment (MPI 2013) and these describe the process through which village and Kumban participation should occur.

THE ROUND TABLE PROCESS

Since the 1950’s Lao PDR has had history of connection with foreign providers of financial support. The relationships between Lao PDR and its development partners show many of the shortcomings of other developing countries and there have been significant social, economic and political impacts associated with aid dependence (Phraxayavong 2009). Important among these is the conditional nature of aid and finance and the ways that this influences policy making in recipient countries.
Since 1983, Lao PDR has been participating in the United Nations Interagency Round Table Process which is viewed as the national mechanism for enhancing mutual understanding and development coordination between the Government of Lao PDR and its development partners, towards achieving Lao PDR’s development goals. Sector and sub-sector working groups support the round table process. A Forestry Sub-sector Working Group (FSSWG), which comprises representatives from Government, national organisations, development partners and industry, is responsible for contributing to the planning and review process of the Forestry Strategy 2020 (FS2020) and Forestry Development Plans. It provides a platform to discuss and exchange information on thematic issues which are priorities set in the FS2020, to simplify and harmonise procedures and practices in implementing development partner assisted initiatives in the forestry sector, and increase the use of government channels to implement long term activities.

**FORESTRY STRATEGY 2020**

The Forestry Strategy 2020 (FS2020) is the primary sectoral strategy for forestry, including plantations. FS2020 was initiated in September 2000 as one of the policy dialogue activities in the 7th Round Table Meeting process. The main objectives of FS2020 are to define and agree on a set of policy and institutional arrangements, and to allocate relevant roles and responsibilities among the main stakeholders to achieve sector objectives and targets through implementation of the chosen strategies, policies and actions. The overarching objective of FS2020 is poverty eradication.

The major objectives of forestry sector development are:

1) To build the capacity of government organisations and concerned parties for the implementation of FS2020.

2) To control and correct various actions which lead to the deterioration of forest resources in terms of both quantity and quality and at the same time achieve livelihood improvements for poor farmers in rural areas and protect forest cover.

3) To develop and enforce laws and regulations related to forest.

4) To ensure sustainable management of Production Forests with the participation of local people and to promote commercial tree planting by individuals, groups, organizations, small and medium scale companies and foreign and national investors with government providing policies.

5) To take a balance between wood processing industries and wood volumes approved annually for harvest based on scientific calculation, and to strongly promote domestic processing of finished products.

6) To contribute to conservation of forest ecosystems, habitat and all plant and animal species in danger of extinction.

7) To protect soil, watersheds and the environment and to secure the durability of important infrastructure by forest conservation.

8) To use revenue from forests in the most effective ways for development of the economy and other sectors according to government’s priority development plans, and to contribute to poverty eradication.

9) To ensure sustainable management of Non-Timber Forest Products (NTFPs) and their contribution to livelihood improvement of rural villagers

The major forest sector targets, which must be achieved to contribute to poverty eradication, are:

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1) To improve the quality of the existing forest area, which is about 70% of the total land area, by naturally regenerating up to 6 million ha and planting trees up to 500,000 ha in unstocked forest areas, as an integral part of a rural livelihood support system encompassing stable water supplies and prevention of natural disasters.

2) To provide a sustainable flow of forest products for domestic consumption and to generate household income through sale and export, thus contributing to livelihood improvement, fiscal revenue and foreign exchange earnings whilst increasing direct and indirect employment.

3) To preserve the many species and unique habitats, which are, for different reasons, threatened both within the country and elsewhere.

4) To conserve the environment including protection of soil, conservation of watershed and climate.

The priority policy and programs as set out in the Forestry Strategy 2020 are described in Appendix 2. With respect to plantations these include a policy to:

"promote tree planting and management by setting clear purposes with relevant target owners and markets, and investment schemes to strengthen wood supply base and farmers’ income base”.

This is to be implemented via specific programs and actions including:

- Formulation of a National Tree Plantation Development Plan with comprehensive coverage from tree breeding to plantation management and processing, with clear target groups and incentives. The incentives include tax exemptions, access to plantation inputs and extension services.
- Improving tree plantation profitability by improving tree growing technology and securing better prices.
- Improving the legal and regulatory framework.
- Improving funding and incentives.
- Marketing development.

FOREST SECTOR DEVELOPMENT PLANS

A secretariat within the Ministry of Agriculture and Forestry prepares and submits five-year plans and annual plans for the forestry sector.

The five-year plan from 2006 to 2010 included:

- Priority actions for implementation during the five-year period.
- Coordination/facilitation of the means and measures necessary for implementation of the priority actions.
- Monitoring of FS2020 implementation.
- Mobilization of international assistance for FS2020 implementation.

The Ministry of Agriculture and Forestry (MAF) adopted the Five-year Agriculture and Forestry Development Plan (2006-2010) in Sep 2007. It includes four targets and 13 measures. The four targets were Food Security, Commercial Production, Shifting Cultivation Stabilization and Sustainable Forest Management and Balance between Utilization and Conservation.

A draft report against the implementation of the 2006-2010 plan makes several observations for forest plantations (MAF 2007):

- The tree plantation area for 05/06 and 06/07 was 35,000 ha and 25,800 ha respectively; assumed to be new plantations established during those years.
Forest land use investment in crop and tree plantations, especially large scale investment in the form of state land concession, was rapidly increasing. The requested land area for investment proposals in plantations at the central level was close to 2 million ha. Various conflicts related to land use and concessions were reported and the GOL temporarily suspended new concessions in order to review the approval process and field operations of all existing concessions. The GOL gave priority to investment proposals, which provide benefits to local villagers including the 2+3 system.

While commercial crop/tree plantations was a priority areas for the promotion of foreign investments, relevant Ministries and Provinces were not well prepared or equipped to manage and control investment in plantations. Rules and regulations concerning investment appraisal, selection of land for concessions including consultation with local villages and monitoring of actual investment were not fully developed or enforced. Consequently there were many cases of the conversion of intact forest or village forest/land, without subsequent plantation establishment, and inconsistent application of fees and land rental charges.

MAF was preparing Ministerial regulations on management of tree plantations and a Code of practice on plantation forestry to form a part of the comprehensive legal framework, but this was never completed.

The annual harvesting of planted trees was increasing but remained limited. Nevertheless, perceived strong demand for certified products in the US and Europe coupled with maturing teak resources in Northern Provinces resulted in a program for FSC group certification of small holder teak plantation – the Luang Prabang Teak Program (LPTP). This program suspended its FSC certification in 2016 but continues to operate to provide support to teak smallholders.

The Lao Tree Plantation and Cash Crop Owners Association had been formed and it was expected to play a key role in providing technical and market information and to promote good practice through the dissemination of GOL laws and regulations. At the time of writing the association was not known functioning.

The current Five-year Agriculture and Forestry Development Plan (2016-2020) includes the following expected outputs:

- Manage, protect and develop forest under MAF’s responsibility in order to contribute to forest cover of 70%, through reforestation of degraded forest in production forest area of 650,000 hectares and planting of the trees over 100,000 hectares.
- Increase the area of forest certified forest to 20% of total forest production area.
- Establish and manage village forest in 1,500 villages across the country.
- Carry out the 2nd National Forest Inventory (NFI).
- Prepare and develop techniques and standard procedures to access (sell) carbon credits beyond 2020.

The Implementation Plan on Forest Management for 2015-2016 includes the following activities:

- Develop and improve regulations, rules and forest strategy and disseminate to related sectors and the public.
- Strengthen and improve organizations from central to the local level.
- Build capacity of technical staff and villages in forest management, protection, development and forest/NTFPs utilization.

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6 Based on a summary presentation translated from Lao. An English copy of the Plan was not available.
- Mobilize funds through aid grants, investment from both local and foreign entities of at least 50 billion kip and US$25 million.
- Carry out monitoring and evaluation on implementation plan in each period.
Figure 5: Overview of the History Forest Policy Development

- **Governance**
  - 1926: Colonial Forest Service
  - Transition
  - Ministry of Agriculture and Forestry
  - Global Integration
  - Privatisation
  - Present

- **Major Laws**
  - 1954: Forest Law
  - 1959: Forest Code 930
  - 1993: Forest Law on Protection
  - 1997: Law on Land
  - 2003: Revised Forestry Law
  - 2005, 2007: Forest Law
  - 2004: Forest Law on Domestic and Foreign Investment Promotion

- **Forest Policy**
  - Subsistence use of forests
  - Exploration of natural forests
  - Rapid increase in log production
  - Log exports as a major source of government revenue
  - Cooperation with Vietnam
  - State Forest Enterprises (SFE) established
  - National Program for Shifting Cultivation Stabilisation
  - National Growth and Poverty Reduction Strategy
  - Focus on Domestic processing
  - Termination of National Forest Certification

- **Significant Events**
  - 1955: War time damage and loss
  - 1986: Shift to open market economy
  - 1997: Land allocated to individuals
  - 1998: CBD ratified
  - 1999: ASEAN Financial Cross
  - 2004: Global Financial Cross
  - 2015: Chair of ASEAN

- **Plantation Policy/Programs**
  - 1969: Lao Australian Rubber Establishment Program
  - 1977: Lao Swedish Forestry Project
  - 1996: National Strategy on Plantation Forestry
  - 2003: Promotion of Plantation Regeneration
  - 2004: Joint National Program on Improved and Sustainable Production of Eucalyptus in Southwest Asia
  - 2005: Promotion of plantation concessions
  - 2016: Review of Plantation Promotion regulations

- **Domestic Policies**
  - 2007: Revised Forestry Law
  - 2008: Forest Law
  - 2012: No UMPA ban on some new concessions, 2013
  - No UMPA suspension on log exports in 2016
STRATEGIES, PLANS AND POLICIES THAT IMPACT OR INFLUENCE PLANTATION POLICY

NATIONAL GROWTH AND POVERTY ERADICATION STRATEGY (NGPES)

The National Growth and Poverty Eradication Strategy (NGPES), adopted in 2004, is a national development program aimed at enhancing growth and development and reducing poverty, particularly in the 47 poorest districts in the country. More broadly, it contributes to the overarching national development goal of progress towards graduation from LDC status by 2020 by strategically identifying the sectors that are most important for poverty reduction, and formulating national action plans for these sectors in response to poverty reduction priorities. The NGPES focuses on four main sectors:

1) Agriculture/forestry,
2) Education,
3) Health, and
4) Transport.

It further identifies trade, tourism, manufacturing and energy as supporting sectors necessary for poverty reduction, and environment, gender, population and capacity development as key crosscutting sectors. It addresses the importance of forest and biodiversity conservation as a main source of livelihood and income for rural households, the need to better manage river basins and watersheds to minimize flooding and other natural hazards, while also addressing the low government spending and budgeting for environmental management and conservation as a result of it being seen as a low priority.

NATIONAL ENVIRONMENTAL STRATEGY TO 2020 AND ENVIRONMENT ACTION PLAN

The National Environment Strategy and Action Plan (NES-AP) aims to secure sustainable development and contribute to poverty eradication through sound environmental management and sustainable use of natural resources. The plan recognises that environment management should be implemented in a systematic and effective manner to ensure environmental protection and natural resource conservation, and should be balanced with economic and social development together with requirements for national defence and public security. This should be undertaken through the development of appropriate policies, legislation, institutional and capacity development, education and awareness, financial mechanisms and opportunities for international cooperation. The NES-AP includes seven focused programmes including, of particularly relevance to plantations, the promotion and enforcement of environmental and social impact assessments and environmental management of development projects.

THE NATIONAL LAND POLICY

The National Land Policy establishes, as a principle, the legal equality of all Lao citizens, ensuring their rights and interests in relation to the possession of land use rights. It aims to protect the rights and interests of the state, organizations, individuals, entities, collectives, communities, local and foreign investors that use land, including customary land use rights of people.

The Lao Government is re-drafting the Land Policy with the following purposes:

- To protect land use rights of individuals, entities, organizations, collectives, and communities.
- To clearly allocate, zone, and classify land.
- To make land management and administration strong, transparent and effective.

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7 (Draft) National Land Policy October 2015
To broaden investment promotion policy by allowing foreigners of Lao origin and foreign investors to purchase land use rights for residential or business purpose, so that improved socio-economic development and sustainable natural resources conservation can be fostered, and eventually help erase the country from the least developed country list by 2020.

The Land Policy reiterates the policy of “turning land into capital by determining land use areas for the highest benefits.” The Policy will influence the revisions to the Land Law and Forest Law which will have consequential implications for plantations. Of particular relevance to forest plantations are the recognition of customary land use rights, the allocation land use rights including customary rights, and measures to recognise and compensate for the loss of land use rights.

Through the land policy and the draft Land Law the State expressly recognises and clarifies the customary land use rights of Lao people who have occupied, protected, developed, and utilized land in a peaceful, regular, transparent, continuous, and long-term manner, with or without documents regarding the right to use such land, provided that there is valid certification thereof and the land is not within state reserved or conserved areas. It also provides for the granting of a lease or concession over communal land, subject to the approval from the majority of community members and authorization from the state. This is significant in several ways. Firstly it acknowledges customary land use rights, where previously this right was tenuous. It then permits the holders of such rights to utilise this land in a manner that allows for commercial use, including by lease or concession to a third party. Finally it introduces an, albeit limited, measure of control over how the land is to be used and transferred; simultaneously allowing approval by a majority of community members but also by the state at the District level. Thus, use of communal land remains centrally managed by the State who assigns such land for use for the highest benefits of the communities.

The management of communal land will be determined in specific regulation. Communal land and land use rights are distinct from collective land that belongs to cooperatives, production groups or associations that have lawfully received a joint land use right over the land.

The draft Land Law, made in response to the Land Policy, makes changes to the authorities to approve the conversion of land from one category to another. Plantations are included within the Agricultural Land category. As before, this allows for land allocation to individuals/households (up to 3 ha per labour force, based on capacity) but also introduces allocation to domestic private juridical entities (up to 30 ha) and collective enterprises (up to 40ha). Larger allocations of land require a lease of concession. New, specific, provision have been proposed for plantation concessions and the draft law specifies the administrative level at which application for concession of different scales (size and duration) can be approved: Districts <100ha/20 years; Province 100-150ha/30 years; Ministry 15-500ha/40 year; National Assembly >500ha.

While both the Land Policy and Land Law were in draft at the time of writing these amendments will impact both the availability of and access to land for plantations.

- Villages may have some opportunity to enter into concession/leasing arrangements with third parties, but unlike concession for plantations there is no stated limit to the area or duration of the arrangement.
- For concessions over state land the law goes some way to clarifying the roles of offices of Natural Resources and Environment and the Local Administration Authorities, at the different levels.
- Industrial plantations are included as a land use in the Agricultural Land category for which land can be allocated to individuals in households but does not allow for the allocation of forest land to individuals in households. This suggests, although it is not clear, that plantation could be treated as an agricultural crop which could have flow on implications for representation under the Forestry Law and associated regulations.
THE STRATEGY FOR AGRICULTURAL DEVELOPMENT 2011 TO 2020

The Strategy for Agricultural Development 2011-2020 has been a long term guiding framework for the development of the agriculture sector. The strategic direction includes ensuring a gradual transition from subsistence to commercial smallholder production with the aim of reducing rural poverty by increasing productivity, channelling production inputs and finance, and facilitating links to regional and global value chains. In operational terms it is intended that the framework will translate into appropriate measures of value chain governance ensuring that smallholder and local small and medium scale enterprises can retain a fairer share of the valued added their products. ‘Pro-poor’ and ‘green’ value chains are emphasised within that plan, and an appropriate regulatory framework is viewed as essential for enabling this transition. One important observation made in the Strategy is that there is no legally established nor consistent operational definition of a ‘smallholder’ and that the absence of such a definition is an important barrier to achieving the goals of that Strategy as well as other national plans.

In 2015 a new Agriculture Strategy to 2025 with Vision to 2030 was introduced with the aims of achieving food and nutrition security, contributing to the SDGs with zero hunger by 2025, suitably commercialized production systems, protection of rural livelihoods and poverty alleviation, and sustainable forest utilization and conservation. This Agriculture Strategy does not specifically include timber plantations, and it is unclear whether a new forestry strategy will also be developed or whether this represents a shift in thinking about the role of forestry in Lao PDR’s agri-based economy.

AGRICULTURE AND FORESTRY RESEARCH STRATEGY

In response to the Agriculture Sector Strategy to 2025 the National Agriculture and Forest Research Institute (NAFRI) developed an Agriculture and Forestry Research Strategy 2025 and ‘Vision up to 2030’. This strategy sets key research areas across six programme areas:

1. Sustainable agro-biodiversity
2. Improved agriculture productivity
3. Agriculture adaptation to climate change
4. Agriculture and forestry policy research
5. Capacity building
6. Information and Communication

NATIONAL EXPORT STRATEGY 2011-2015

The Government of Lao PDR has developed a National Export Strategy through which nine sectors, that have the potential to generate foreign exchange to boost economic growth, are targeted. These sectors are hydropower, tourism, organic agriculture, minerals, garments, silk and cotton handicrafts, wood products, medicinal plants and locally produced products.

STRATEGY ON CLIMATE CHANGE

The Government of Lao PDR ratified the UNFCCC in 1995 and the Kyoto Protocol in 2003, and has developed a Strategy on Climate Change in 2010. A National Adaptation Plan of Action (NAPA) was released in May 2009 and contains 45 priority projects across four sectors: agriculture, forestry, water and water resources and health.

National Adaptation Program to Action for Climate Change 2009

The National Adaptation Program to Action for Climate Change 2009 addresses the urgent needs for climate change adaption. In the program related to forestry this includes the strengthening of village through village forestry volunteers in forest planting, caring and management techniques as well as the
use of village forests, raising public awareness on wildlife conservation, including a public awareness campaign to disseminate information on forest and wildlife regulations and laws, strengthening the implementation of these regulations and building research capacity on wildlife pests and diseases and outbreaks of animal diseases.

**BIODIVERSITY CONSERVATION ACTION PLAN**

The National Biodiversity Strategy and Action Plan (NBSAP) outlines the issues, goals and actions needed to protect biodiversity resources and ensure their sustainable use. It contributes to implementation of the International Convention on Biological Diversity (CBD), which Lao PDR ratified in 1996. The goal of the NBSAP is to maintain biodiversity as a key to poverty reduction and to protection of the current asset base of the poor.
5. POLICY DRIVERS

The above summary shows that Lao PDR has a complex planning process to progress its national socio-economic development strategies. The making of strategies, planning and policy formulation has remained tied to development assistance and with it to the motivations and agendas of donor countries (Phraxayavong 2009) - whether these are economic, social, humanitarian, environmental or political. Efforts to simultaneously join the global community but retain elements unique to Laos have resulted in a hybrid approach to policy making – sometimes called centralised decentralisation - and this has implications for the formulation and implementation of development goals and policies.

There is certainly no shortage of high-level statements on priority issues, and many of the sectoral strategies and implementation plans have been developed with international donor support and are heavily laden with content and language in support donor country and global aspirations. Broad policy statements satisfy the expectations of donor partners but appear to be at the expense of approaches specific to the needs of Lao PDR. It is possible, however to untangle domestic and international drivers for policies to support strategic goals.

DOMESTIC POLICY DRIVERS

The overarching drivers for plantation policy in Lao PDR are national goals for socio-economic development and poverty eradication. Underpinning these are more specific goals for the development of export markets for finished products supported by domestic wood processing with job creation, and income generation for the rural poor underpinned by resettlement programs that promote permanent agricultural production, reduced shifting cultivation, reduced land degradation and the protection and increase of forest cover (Figure 6).

Figure 6: Domestic Policy Drivers

INTERNATIONAL POLICY DRIVERS

Increasing exposure to global markets and participation in international programs has also influenced forest policy in Lao PDR. United Nations Conventions and treaties, many of which Lao PDR is a signatory
to and some of which have also been ratified (refer Appendix 7), international processes, such as United Nations Forum on Forests (UNFF), International Tropical Timber Agreement (ITTA) and Montreal Process, and political summit recommendations, such as the Group of Eight Largest Economies (G8), Asia-Pacific Economic Cooperation (APEC) and Association of Southeast Asian Nations (ASEAN), provide a strong political message. Those funding the forestry sector, including multilateral and bilateral donors, development banks and international commercial banks have principles, policies, safeguards, guidelines and procedures to which their clients increasingly must conform if they want to retain access to funding or markets. Additionally, non-governmental organizations (NGOs), forest and forest industries investors, wholesalers, retailers, buyers and governments, particularly in industrialized countries of Europe, North America, Oceania and Japan, are increasingly demanding proof of legality and sustainability through verification and sustainability certification (World Bank 2012). Surrounding these is discourse on forestry and forest management and it is possible to extract key narratives that have influenced forest and plantation policy in Lao PDR.

These concepts contribute to pressure on policies and influence their implementation and Some narratives provide the driving forces for change while others may create resistance to change (Figure 7). Some examples are:

- Plantations are seen a means to address land degradation, by providing an alternative production system to slash-and-burn/swidden agriculture, which in turn is viewed as a cause of poverty, particularly in the uplands (see Lestrelin et al. 2012; Fox et al. 2009).
- Agricultural development is needed to support a growing population.
- Plantations produce wood, which provides a source of income to the rural poor (see ACIAR 2010, but see Newby et al. 2014)
- Policies to increase plantation development are likely to increase the household welfare across the Lao region with both rural and urban household increasing real income per person. The incidence of poverty will decrease slightly across all types of household groups, and overall, a small increase in inequality is likely (Phimmavong, 2014).
- Smallholder plantations are a potential resource that needs to be mobilised to meet the needs of industry and contribute to national development policies (see Midgley 2016).
- Plantations provide an opportunity to encourage permanent settlement or resettlement, which is also promoted through the provision of land use rights (but see Lund 2011).
- Land policies allow for the categorisation and zoning of land, which can then be allocated for use; degraded forest land can be allocated for plantations (see. Barney 2009).
- Land allocation enables the privatisation of land use and the development of formal and informal land markets (Dwyer 2007, but see Lestrelin 2010).
- Land availability facilitates opportunity for foreign investment in large scale plantations, which generates government revenue through land rental as well as provides timber and employment (see GTZ 2005; GTZ 2006).
- Concessions for industrial plantations have resulted in land grabbing (see Hanssen 2007)

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8 e.g. United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention to Combat Desertification (UNCCD), Convention on Biological Diversity (CBD), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and Convention on Wetlands of International Importance (RAMSAR),
Conversion of land to plantations may have negative environmental impacts (see Baird 2014)

Allocation of land to plantations can have negative impacts on local people through the loss of use rights or land access (see Kenney-Lazar 2012).

Concessions and modern production systems will propel rural into a wage based modern economy (but see Baird 2011)

Plantation grown wood can be substituted for timber harvested from natural forests. This helps to address unsustainable harvesting and reduces illegal logging.

Legally sourced wood is more acceptable to export markets.


Legality verification and certification will help build the timber industry by diversifying timber products and increase revenue through placement in sensitive markets (c.f. http://www.euflegt.efi.int/Lao_PDR).

Plantations increase forest cover (see MAF 2005)

Plantations are not forest (see https://www.rainforest-rescue.org/petitions/772/plantations-are-not-forests)

Plantations contribute to climate change mitigation and adaptation.

Figure 7: Policy discourses and forces

There are differing perceptions about how well plantations have contributed to the stated policy objectives. Table 4 summarises some of those identified during interviews with policy makers, industry and other stakeholders in Lao PDR.
Table 4: Performance of plantation against policy objectives

<table>
<thead>
<tr>
<th>Primary policy objective</th>
<th>Level of success</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty reduction</td>
<td>Inconclusive</td>
<td>Localised plantation development may improve the income or livelihood conditions of individual households but makes little contribution to national targets for poverty reduction. Poverty reduction due to plantation may have occurred in some specific areas (e.g. Luang Prabang Province) but not everywhere. Poverty reduction will not occur through plantations alone. There needs to be integration with other sectors.</td>
</tr>
<tr>
<td>Income generation</td>
<td>Inconclusive</td>
<td>Income generation for some plantation owners may occur where they are already able to meet other livelihood needs. Land availability remains the primary determinant of this. Plantation management systems for smallholders may be based on immediate need rather than long term income strategies. Plantation production systems need to include other short term crops to meet farmer’s annual needs. Teak plantations have reduced poverty through better access to land but have not improved income generation.</td>
</tr>
<tr>
<td>Land allocation</td>
<td>Inconclusive</td>
<td>There have been challenges with respect to the allocation of land for smallholders and corporate plantations. While some farmers have been able to acquire land and establish plantations others may have experienced land scarcity as a result of plantation establishment. Some farmer may have less access to land and have become poorer. Land use competition continues to be a significant barrier to plantation development. There is inadequate land use planning and the positive and negative impacts of providing land to plantation concession are not well understood. Poor implementation of government policy and the provincial level has caused problems in the past. New policies to suspend concessions require land use planning but this is not occurring quickly enough which discourages investment.</td>
</tr>
<tr>
<td>Permanent production/stopping swidden</td>
<td>Inconclusive</td>
<td>The establishment of plantations on agricultural or fallow swidden land may have resulted in new areas of intact forest being cleared for swidden, particularly in areas where there are land shortages. The use of agricultural land for plantations may shorter rotations and increase land degradation.</td>
</tr>
<tr>
<td>Forest cover</td>
<td>Inconclusive</td>
<td>The area of plantation has increased and has improved forest cover. Plantations do not necessarily represent permanent forest cover if they are to be harvested under optimal plantation rotations, particularly short rotation species such as Eucalyptus and Acacia. Where plantations have resulted in new areas of forest being used for swidden these may offset any increases in forest cover from plantation establishment. The environmental benefits of plantations are not clear. The requirement that plantation are only established on degraded land is not strictly followed so forest has been cleared for plantation.</td>
</tr>
<tr>
<td>Primary policy objective</td>
<td>Level of success</td>
<td>Comment</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Wood production</td>
<td>Unsuccessful</td>
<td>Many corporate-owned plantations are still immature and their future contribution to wood supply is unknown. Wood supply from smallholders is unpredictable. It is not clear if the existing plantation types and species are appropriate for long term processing and manufacturing strategies. The strategy regarding land suitability and plantation species is inadequate. There is no long term strategy for wood supply from plantations.</td>
</tr>
<tr>
<td>Job creation</td>
<td>Limited</td>
<td>Jobs have been created through the development of domestic wood processing, however much of this has occurred on the basis of harvesting of wood production from natural forests. In some areas employment has been created through concession-based projects (plantation labour, which is not permanent) or in association with ancillary services such as nursery work. However this cannot not be viewed as a sustainable in all cases; employment may be short term or seasonal.</td>
</tr>
<tr>
<td>Domestic wood processing</td>
<td>Limited</td>
<td>There has been some investment in domestic wood processing specifically for plantation grown wood, however, most domestic processors utilise timber from plantations and natural forests. The national processing standards are inadequate and need to be reformed. Many factories do not meet national standards. There is a lack of capacity and low level of skill in domestic processing. Government policies have created a disincentive to invest in domestic wood processing.</td>
</tr>
<tr>
<td>Export</td>
<td>Limited</td>
<td>Most plantation-grown wood is exported without significant domestic processing. Export driven requirements for legality, together with complex and costly regulatory processes, constrain the ability for smallholder plantation owners to participate in export markets. All plantation products are impacted by policies intended to address illegal and unsustainable harvesting and export of wood from natural forests.</td>
</tr>
</tbody>
</table>
6. THE LEGAL FRAMEWORK FOR FOREST PLANTATIONS

The multi-faceted expectations held about plantations in the socio-economic development policies of Lao PDR have been translated into an extensive and highly complex legislative and regulatory environment for forests, plantations and the timber value chain; over 200 regulatory steps have been mapped along the plantation wood value chain from establishment to export. This framework is described in detail elsewhere: in the Forestry Legality Compendium for Lao PDR (Smith and Alounsavath 2015) and for smallholder plantations in particular (Smith 2014). The major legal sources and their relevance to the plantation sector are listed in Table 5. The process for making law is presented in Appendix 4 and a comprehensive list of legal instruments relevant to the plantation value chain is provided in Appendix 5.

Table 5: Major legal sources relevant to Plantations

<table>
<thead>
<tr>
<th>Legal Source</th>
<th>Purpose</th>
<th>Matter relevant to Plantation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law No. 04/NA on Land 2003</td>
<td>Categorises and defines all types of land</td>
<td>Provides for land use rights for individual, families and organisations</td>
</tr>
<tr>
<td></td>
<td>Regulates access to land and land use rights</td>
<td>Provides for state land concessions and the leasing of state lands</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provides for the conversion of land categories to allow for concessions</td>
</tr>
<tr>
<td>Law No 06/NA 2007 on Forestry</td>
<td>Regulates the management and use of Forest Land (as defined under the Law on Land)</td>
<td>Allows for the use of Forest Land for plantations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specifies the types of forest land that can be allocated for plantations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sets the general requirements for the management of plantations and the plantation timber value chain</td>
</tr>
<tr>
<td>Law No. 29/NA on Environmental Protection 2012</td>
<td>Regulates for environmental protections, particularly with respect to develop</td>
<td>Establishes the requirement for Environmental Compliance Certificates for development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Establishes the requirement for Environmental and Social Impact assessments</td>
</tr>
<tr>
<td>Law No. 02/NA Investment Promotion 2009</td>
<td>Promotes investment activities by domestic and foreign entities</td>
<td>Establishes the requirements for investment approvals and sets the procedures for investment activities</td>
</tr>
<tr>
<td>Law No. 46/NA on Enterprise 2013</td>
<td>Regulates all business activities</td>
<td>Establishes the basis for the registration of enterprises, including plantation and forestry businesses.</td>
</tr>
<tr>
<td>Law No. 48/NA on Industrial Processing 2013</td>
<td>Regulates all processing and manufacturing activities including wood processing.</td>
<td>Sets the standards for processing industries</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Classifies processors and sets the approval requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limits small scale processing</td>
</tr>
<tr>
<td>Law No. 04/NA on Customs 2011</td>
<td>Regulates Exports and Imports</td>
<td>Sets high level regulations with respect to the export and imports of wood and wood processing equipment</td>
</tr>
<tr>
<td>Law No. 05/NA on Tax</td>
<td>Provides for the collection, payment and exemptions</td>
<td>Allows for tax exemptions to encourage plantation</td>
</tr>
<tr>
<td>Legal Source</td>
<td>Purpose</td>
<td>Matter relevant to Plantation</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>2011</td>
<td>from tax development and domestic processing.</td>
<td></td>
</tr>
</tbody>
</table>
| Order No 15/PMO On Strengthening Strictness of Timber Harvest Management and Inspection, Timber Transport and Business 2016 | Suspends to export of logs and unfinished wood products | Applies to wood from plantations:  
- to reduce the risk that consignments of plantation wood are used to conceal the export of illegally harvested timber from natural forests;  
- to reduce the export of plantation wood that does not comply with the regulations. |
| Order No. 13/PM Regarding suspension of consideration and approval for new investment projects in connection to mineral ore exploration & survey, rubber and eucalyptus Plantation in whole country 2013 | Temporarily cease the approval of new development activities in order to constrain adverse outcomes. | Prohibits the approval of new eucalyptus and rubber plantation investment projects.  
Does not prohibit the approval applications in the pipeline |
| Decree No. 96/PM on Industrial Tree Plantations and Environmental Protection, 2003 | To promote tree planting for commercial timber production and environmental protection | Reiterates the incentives for plantation development such as land tax exemptions and the provision of technical assistance. |
| Decree No. 135/PM on State Land Lease or Concession 2009 | Sets the conditions and process for the approval of concessions and leases on state land | Applies to plantation projects approved as a lease or concession. |
| Directive No. 1849/MAF concerning the registration of tree planting parcels 1999 | Establishes the requirement for plantation to be registered | Provides the process and criteria by which plantations must be registered. |
| Regulation No. 0196/MAF concerning the development and promotion of long-term plantations 2000 | Promotes investment in tree plantations | Establishes the procedures for development of plantations under different land and investment arrangements.  
Describes the governance and administrative arrangement for tree plantation approvals. |
<p>| Decree No. 192/PM on the Compensation and Resettlement of the Development Project 2005 | Establishes the requirements for the payment of compensation and standard for are-settlement for people affected by development projects | Plantation investors must pay compensation and may be required resettle people affected by the plantation development project. |</p>
<table>
<thead>
<tr>
<th>Legal Source</th>
<th>Purpose</th>
<th>Matter relevant to Plantation</th>
</tr>
</thead>
</table>

**ANALYSIS OF THE LEGAL FRAMEWORK**

To a great extent the now extensive and complex formal regulatory requirements for plantations in Lao PDR emerged in concert with the introduction and cyclical reviews of national policies and development programs.

The introduction of new laws and legal reforms are a common mechanism for ‘enabling policy’ often by constraining rather than encouraging action, and the topics of policies and development programs may be used, either overtly or less transparently as an entry point for law reform. The same can be said for Governance reform and policies for institution building in developing countries. Thus, in Lao PDR as elsewhere, development funding and support may be contingent on legal reform and that legal reform must meet certain standards. Laws may be developed locally but are frequently transplanted, at least in concept, from elsewhere; the assumption being that because it worked in one setting it will work in another. The source may be another country (e.g. France), a donor or funding body (e.g. the World Bank), and increasingly the private sector (Gillespie 2008).

The Government of Lao PDR has undoubtedly embarked on a comprehensive program of law reform and law making, and has committed to establishing ‘Rule of Law in accordance with national realities’. These local realities are significant. In the same way that markets in Lao PDR are ‘managed by the government’ other sectors are regulated on the basis of ‘rule by law’ – the principle that whatever the government does, it should do through laws (Tamanaha 2004). More law is viewed as better and since national liberation in 1975 the National Assembly (NA) has passed more than 100 laws; this is still seen as insufficient to govern the state and society and to respond to the nation’s development needs. The National Assembly has indicated a need to pass more laws in order to respond to these needs and facilitate economic growth despite a perceived insufficiency of law enforcement and a high level of non-compliance. At the first session of the Seventh Legislature in 2011, the NA set a five-year plan to pass 92 laws by 2015 to facilitate development needs and the country’s integration with the region and the world. Thus, the first response to a policy failure in Lao PDR may be the introduction of a new law or subordinate instrument to constrain action, often without repealing a previous order.

This, compounded by an administration structure based on ‘centralised decentralisation’ which gives authority to decentralised agencies to make locally specific rules, has created a convoluted regulatory process for plantations and plantation grown wood. Numerous approvals need to be obtained from various levels, often with associated transaction costs. The level of red tape may force people from the formal sector (Katz 2010) and impact the efficiency of value chains. It also complicates law to such an extent that successfully navigating it becomes almost impossible for many, resulting in innocent non-compliance and illegality.

The convoluted and sometimes contradictory legislation also variously enables and constrains National, Provincial, District and Local authorities, creating ‘gridlock’ (Katz 2010, see for example Order 15/PM 2016). The perception may be that laws have failed to deliver their anticipate benefits, they lack legitimacy, are inaccessible, unknowable or unenforced, resulting in lack of compliance. As a consequence pre-existing customary laws and institutions may be retained and continue to function.
(Smith 2014). While contrary to earlier land and development efforts, this legal pluralism is now being embraced by the development sector and at least acknowledged by the Government, and Lao PDR has recently begun to consider the ‘harmonization of state and customary laws’ (UNDP 2011). While it would be premature to suggest that Lao PDR has embraced the concept of legal pluralism, it is the case that customary law may remain the de facto mediator of access to land where statutory law has failed or is inaccessible.

Negotiating what is ‘law’ in such plural legal situations presents challenges for people, States and their international counterparts as they undertake law reform programs; different laws make competing claims of legitimacy and authority, they impose conflicting demands on norms and they have different styles and orientation. Where two or more of these meet there can be friction and the potential for competition can generate uncertainty for individuals or groups who cannot be sure in advance which legal regime will be applied in their situation (Tsing 2005). This is further complicated by the overlay of supra-state laws to which the Government of Lao PDR is signatory.

This legal diversity also creates opportunities for selection from among coexisting legal sources and authorities forum shopping, which provides avenues for people choose legal pathways to reduce costs or minimise taxes. (Said 2015, Savathvong 2010). The need to simplify the regulatory environment has been recognised by the GoL, it has recently enacted a Law on Making legislation, clarifying the process for making laws and established an Official Gazette for laws that are in force.
7. GOVERNANCE

GOVERNMENT AGENCIES

Responsibility for the plantation sector sits several Ministries and line agencies which regulate all aspects from land allocation to wood exports. These are:

- The Ministry of Agriculture and Forestry (MAF)
- The Ministry of Natural Resources and Environment (MONRE)
- The Ministry of Industry and Commerce (MOIC)
- The Ministry of Justice (MOJ)
- The Ministry of Finance (MOF)
- The Ministry of Planning and Investment (MPI)
- The Ministry of Public Works and Transport (MPWT)

MINISTRY OF AGRICULTURE AND FORESTRY

The structure and functions of Ministry of Agriculture and Forestry (MAF) are set out in Decree No. 262/PM (2012) on the organization and function of the Ministry of Agriculture and Forestry. According to its mandate, MAF is responsible for “ensuring food security; forest management, supplying raw materials for processing industries, sustainable, modern commodity production and the creation of permanent jobs for ethnic groups in order to reduce dependence on shifting cultivation and to eradicate poverty across the country”.

Department of Forestry

The Department of Forestry (DOF) is a central agency under MAF which provides advice to MAF in relation to the management, conservation, protection, development and use of forest resources within production forest areas, plantation forests and village forests, as well as for forestlands which are not yet classified. The main functions of DOF are to develop and implement strategies, programs and policies on forestry activities, undertake forest planning, zoning, surveys, monitoring, formulate forestry laws and other legal instruments related to forestry and to operationalise these through regulations, policy and technical instructions.

Within DOF the Plantation Investment Division, together with the Division of Technical Standards, is responsible for the development of regulations with respect to plantation investment and plantation management. It also collates and maintains plantations statistics.

Provincial Agriculture and Forestry Division

At the provincial level, the Provincial Agriculture and Forestry Offices (PAFOs) are responsible for implementing the functions of DOF as well as helping to perform sectoral activities at the provincial administrative level. This includes developing the provincial harvesting quota for submission to MAF, issuing harvesting licenses, developing harvesting contracts, supervising harvesting operations, preparing log source documentation, undertaking the scaling and grading of logs and creating the lists of logs at Landing 2, prior to transport and consolidating District level information for reporting to DOF.

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9 “The Government” is defined under the Law on Government as the executive branch of the State, approved by and responsible to the National Assembly and the President of the State. Members of the Government are: the Prime Minister, Deputy Prime Minister, the Prime Ministers’ Office, Ministers, Deputy Ministers, Ministries and Ministry-equivalent organisations which may act as the secretariat to the government. And so formally one can distinguish between the ‘Government’ and the ‘Party’ even though the widespread use of the term pak–lat (the Party-state) highlights their near inseparability.
District Agriculture and Forestry Office

Within each Province each District has a District Agriculture and Forestry Office (DAFO) reporting to the relevant PAFO. Their functions include the registration of plantations, providing advice on plantation management and planning, pre-harvest surveys, the approval and monitoring of harvesting operations and the preparation of log origin documentation by measuring and marking harvested logs from all areas (Production Forest Areas, Infrastructure projects, Plantations, and Village Forests). In the past both PAFOs and DAFOs have been responsible for finding “degraded land” for investors (and can be awarded with financial incentives to do so).

DEPARTMENT OF FORESTRY INSPECTION

The Department of Forestry Inspection (DOFI), under MAF, is responsible for monitoring, investigation and enforcement activities under the Forestry Law No. 06/NA 2007 and the Wildlife and Aquatic Law No07/NA 2007. DOFI is directly accountable to the secretary body to the Minister of Forestry, providing a direct line of reporting to the Ministerial level, thus measure of independence outside of DOF and other agencies. The responsibilities of DOFI are described further below.

DEPARTMENT OF FOREST RESOURCE MANAGEMENT

The Department of Forest Resource Management (DFRM) is responsible for conducting surveys and determining the areas and the measures on management, prevention, protection, development, restoration, and registration of forestry resources in protected and reserved forest areas. It also monitors and inspects the use of forests, forest exploitation, and collection of non-timber forest products and biodiversity.

MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

The Ministry of Natural Resources and Environment (MONRE) was established in 2012 by merging the Water Resource and Environment Administration (WREA) with the National Land Management Authority (NLMA) and the Geology Department, as well as with two Divisions previously located within DOF: Protection Conservation and Forest Protection and Regeneration (now Department of Forest Resource Management).

Within MONRE there are ten Departments; including the Land Allocation and Development Department (LADD) which is responsible for the administration of land, land registration, surveys and the issuing of land titles, the Land Management Department (LMD) which is responsible for the participatory land use planning (PLUP) process during which it consults with stakeholders to propose and issue land use permits, land transfers, lands lease or land concession, and coordinates with related line agencies and local administration. MONRE is also responsible for the implementation of the Law on Environmental Protection No 29/NA 2012.

DEPARTMENT OF ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

The Department of Environmental and Social Impact Assessment reviews, confirms and approves the environmental and social impact assessments of investment projects, including for tree plantations, before concession agreements are signed. It monitors and inspects the implementation of environmental management plans, including the promotion of the participation of all stakeholders and people affected by investment projects.

MINISTRY OF INDUSTRY AND COMMERCE

The Ministry of Industry and Commerce (MOIC) regulates all types of industry and trade in Lao PDR. It oversees the sale, transport, processing and export of logs, processed timber and finished wood products. The relevant Departments that fall under the MOIC include
DEPARTMENT OF INDUSTRY AND HANDICRAFT
The Department of Industry and Handicraft (DOIH) is responsible for the regulation of the timber industry sector, including industry standards including environmental impacts, products standards, chain of custody for wood products, and developing policy and incentives for investment in processing.

DEPARTMENT OF IMPORT AND EXPORT
The Department of Import and Export (DIMEX) is responsible for issuing import and export licenses for all products that require them, as well as Certificates of Origin for countries that are part of a preferential trade agreement. It collects and maintains national statistics on imports and exports and maintains the Lao PDR Trade Portal which is the Government’s website that provides a single reference point for all trade related information including laws, regulations, procedures and tariffs. The Lao PDR Trade Portal can be found at: [http://laotradeportal.gov.la](http://laotradeportal.gov.la).

PROVINCIAL OFFICE OF INDUSTRY AND COMMERCE
Provincial Industry and Commerce (POIC) Offices are responsible for timber and forestry enterprises in each Province. Their responsibilities commence after harvesting has occurred and logs have been transported to Log Landing 2 (sanam 2) through to the point of export.

MINISTRY OF FINANCE
The Ministry of Finance (MOF) is responsible for the collection of taxes and royalty payments. Within the Ministry of Finance the Department of Customs is the agency tasked with determining and collecting the duties on goods exported from Lao PDR. The Department of Customs also has an enforcement role, which is described further, below.

MINISTRY OF PLANNING AND INVESTMENT
The Ministry of Planning and Investment (MPI) regulates foreign and domestic investment in Lao PDR including plantation investment projects.

INVESTMENT PROMOTION DEPARTMENT
The Investment Promotion Department (IPD) administers the foreign investment system and reviews investment applications. IPD is the lead agency in the process of assessing applications for investment activities seeking access to land through leases or concessions, and it coordinates the participation all other relevant sectoral agencies in the decision-making process such as the issuing of the concession registration certificates.

MINISTRY OF PUBLIC WORKS AND TRANSPORT
The Ministry of Public Works and Transport (MPWT) is responsible for developing national and provincial roads, civil aviation, urban transport systems, river wharves, and river and road transport. MPWT consists of six departments:
• Department of Civil Aviation,
• Department of Housing and Urban Planning,
• Department of Inland Waterways,
• Department of Planning and Cooperation, Department of Roads (DOR), and
• Department of Transport.

MINISTRY OF JUSTICE

The Ministry of Justice (MOJ) has the primary role in the preparation of legislation. It also carries out a number of legal support functions including in the overall dissemination of legislation, administering the lower courts, coordinating judgement enforcement, regulating and overseeing the legal profession and the Lao Bar Association (LBA), and monitoring the work of Village Mediation Units (VMUs). The MOJ has branch offices at the Provincial and District levels (UNDP 2011).

LOCAL ADMINISTRATION

Provinces, Districts, and Villages are delegated the responsibility “to manage the territory, natural resources and population in order to preserve and develop a modern, civil and prosperous society”. They have authority:

• to implement the Constitution, laws, resolutions, orders, socioeconomic development plans and State budget plans within its area of responsibility;
• to prepare a strategic plan incorporating socio-economic development plans, State budget plans and defence and security plans based on national strategic plans;
• to manage political, socio-economic and cultural affairs, natural resources, the environment and national defence and security;
• to issue resolutions, decisions, orders, instructions and notifications regarding socio-economic and cultural management, and national defence and security within its area of responsibility in accordance with the laws and regulations;
• to supervise the performance of the organisations under its responsibility;
• to collaborate and cooperate with foreign countries as assigned by the government; and
• to exercise such other rights and to perform other duties as provided by the laws.

Local divisions are defined on the basis of geographic boundaries being Province, District and Village and headed by local authorities (Governor, District chief, and Village head). At the local level, offices of the line ministries, such as MAF, are part of the organisational structure of the local administration and are required to manage their own sector’s responsibilities as assigned by the line ministry and to implement legal acts of higher-level authorities and the socio-economic development plans for the province, capital city and district. Thus, PAFO and DAFO report both to DOF and relevant local administrative offices.

In 2004 the GoL re-introduced an organizational level between the village and the district: Village Development clusters (Kumban Pattana).

Foppes (2008) provides the following summary of the structure and function of Kumbans.

Villages are grouped into clusters of on average nine villages per cluster, by Province and Government taskforces. The grouping largely follows a pre-existing structure called “khet”, which is used to organize political meetings among groups of village leaders at sub-district level. The main structure for governing village clusters is the Kumban committee. All members of the committee have to be Party members. Most committees have 7-8 members; roughly half are district officials, the other half village leaders. Members are selected, not elected; the leader is always a senior district official. Kumban committees may have a small Kumban office. In some Kumbans there is also a Kumban police station, a Kumban health post or an Agricultural Technical Service Center.
The main function of the Kumban committee is to produce the Kumban Development Plan, which is submitted to the District with a request for funding to support local development activities. Districts sometimes provide funding, depending on their available budget. The Kumban committees can be assisted by a temporary taskforce of District Technical Specialists “long hak than”. Other functions of the Kumban committee include dissemination of Government policies, implementing the Kumban plan, local conflict resolution and support of producer groups.

ENFORCEMENT AGENCIES AND ROLES

Responsibilities for monitoring, inspection, enforcement and prosecution with respect to forest, plantations and the timber supply chain are distributed amongst various government departments. However, plantations and plantation grown wood currently represent a very small proportion of the law enforcement effort, which is focussed on timber from natural forests and wildlife. Systems are currently being developed that will facilitate the collection of information, including about enforcement efforts associated with plantation grown wood, but at present there is no information available that specifically relates to this sector.

DEPARTMENT OF FORESTRY INSPECTION

The Department of Forestry Inspection (DoFI) is a key agency in the enforcement of forestry related law. DoFI was established in 2008. DOFI is empowered to conduct forest control operations, investigate illegal logging, wildlife crime over forest landscapes, make arrests and pursue prosecutions in Court.

ENVIRONMENTAL POLICE DEPARTMENT

The Environmental Police Department (EnPD) was created in 2012, is part of the General Police Department and operates under the Ministry of Public Security (MoPS). The EnPD has the duty of preventing, suppressing, investigating and arresting offenders who commit crimes related to natural resources and the environment. The EnPD shares jurisdiction over these crimes with other regulatory agencies across Lao PDR.

ECONOMIC POLICE DEPARTMENT

The Economic Police Department (EcPD) is part of the General Police Department and operates under the Ministry of Public Security (MoPS). The EcPD has the duty of preventing, suppressing, investigating and arresting offenders who commit economic related crimes including those pertaining to natural resources and the environment.

CUSTOMS DEPARTMENT

The Lao Customs Department (LCD), under the Ministry of Finance; is responsible for revenue collection from dutiable goods imported into Lao PDR. It is also responsible for identifying and seizing contraband smuggled into and from Lao PDR. This includes illicit timber trafficking.

MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT - DEPARTMENT OF INSPECTION

MONRE Department of Inspection has the power and duty to inspect, research, and resolve administrative disputes; attend, and propose the competent organizations to resolve disputes of a civil and criminal nature relating to natural resources and the environment.

THE GOVERNMENT INSPECTION AUTHORITY AND ANTI-CORRUPTION ORGANISATION

The Government Inspection Authority and Anti-Corruption organisation are responsible for investigating cases of corruption across government, including those related to the forestry sector. With respect to The Forestry Law the powers of State Inspection agencies and the Anti-Corruption Authority include the implementation of any aspect of that law or actions taken by individuals with the forestry agency or sector.
VILLAGE FORESTRY UNITS

The Forestry Law (Article 108) grants Village Forestry Units (VFUs) the right to take a leading role in monitoring and preventing adverse activities that may cause harmful effect to the forest, NTFPs, water resources in forests and the environment, such as illegal cutting of trees, forest burning and any actions that caused damage and destroy the forest on time. However no formal terms of reference have been developed that allow VFUs to function as a component of DOFI and in the existing terms of reference for District Forest Inspection their role is limited to a liaison function.\(^\text{10}\)

\(^{10}\) c.f. Agreement No 1987/MAF on the Terms of Reference of District Forest Inspection Unit (DAFO), 2013
8. STAKEHOLDERS/ACTORS AND INTERESTS/POSITIONS

The following stakeholders and actors are involved in the plantation and plantation wood value chain in Lao PDR.

- **Farmers and household plantation owners** - who plant and grow trees for the purpose of timber production and other uses and benefits, on land allocated to them.
- **Plantation Growing Companies** - Lao or international companies that seek to establish plantations and produce timber.
- **Grower Groups and Cooperatives** – formed by smallholders to facilitate wood sales, price negotiation, improved market, share technical knowledge etc.
- **Harvesting contractors** - business enterprises that undertake timber harvesting through contracts with farmers, grower groups, timber merchants or plantation companies.
- **Wood Traders/merchants/brokers** - business enterprises that are formally, or informally, set up to purchase timber from farmers and sell timber to processors, or export timber directly.
- **Transporters and logistics companies** - enterprises, which may operate independently or under contract with timber merchants.
- **Primary Processors** – receive and process round logs and squared logs for sawing into boards or veneer
- **Secondary Processors** - receive square logs and sawn wood for processing into furniture components and semi-finished products
- **Furniture Manufacturers** - square logs, sawn wood for processing into furniture components and semi-finished for manufacturing into finished products
- **Exporters**
- **Industry Associations** such as the Lao National Wood Industry Association, the Lao Chamber of commerce and Industry, Lao Furniture Association
- **Non-Government Organisations** – that support the government and plantation enterprises, particularly farmer based activities e.g. TFT, RECOFT.
- **Civil Society** - may participate in consultative activities (e.g. Pro-FLEGT), has opportunity to provide comment on draft strategies and laws and provide feedback to the National Assembly.
- **International Development Partners** – that provide funding in support of plantation programs, e.g. World Bank, FAO, ADB, ACIAR, GIZ, JICA, SUFORD
- **Certification Bodies** – that aim to certify plantations to international standards, e.g. FSC, PEFC. They main influence operational plantation management activities in areas where certification is sought, e.g. Luang Prabang teak Program Standard Operating Procedures were developed to FSC requirements.
- **Certification Auditors** - the audit certification and legality programs under standards such as PEFC and FSC, which may influence how plantation activities are perceived.
- **Importing Countries/Companies** - may place specific demands for sustainability or legality on domestic producers and processors, and influence policy and regulatory reforms to facilitate market access, e.g. Vietnam, China, Thailand, EU, Australia.
- **Banks** – May provide loans for plantation or plantation wood processing and may allow for the use of plantations as collateral for loans for other purposes.
- **Consumers and consumer countries**– influence processing through requirements for product quality, standards and design.
- **Government** – policy making, strategy development, regulations, administration, monitoring, enforcement, revenue.
9. ENABLING ENVIRONMENT

INCENTIVES, DISINCENTIVES AND FINANCE

The Government of Lao PDR promotes tree planting through the following programs and mechanisms (Decree No. 0196/PM 2000, see also Smith 2014; Savathvong 2010):

- **Land Tax Exemption** - Land used for plantations is exempt from land tax if planted in accordance with Article 34 of the Forestry Law and formally registered. The aim of this incentive is to encourage plantation establishment and registration. There are, however, inconsistencies in the application of this exemption (Smith 2014) and it has had limited effect on plantation registration (Smith 2014; Smith et al. 2016).

- **Profit tax incentives** are provided for investment projects including production for export, agriculture and forestry, agro-forestry and handicraft processing, activities relating to industrial processing, industry using modern technology, scientific study and analysis activities and development, activities relating to environmental protection and biodiversity. MoF taxes plantations and most provinces collect tax from tree growers in contradiction to exemptions and incentives provided by MAF.

- **Compensation** is payable to tree growers in cases where their land is to be used for public benefits (such as roads). Although the formula for calculating compensation does not recognise the true (long term) value of plantations, and can only be claimed if plantations are registered.

- **Simplified and expedited permissions** - policies exist that are intended to facilitate investment in tree planting and expedite requests for logging and export permits for planted timber. In reality permissions remain complex and costly despite reform efforts (MOIC 2013, Smith 2014, Smith and Alounsavath 2015).

- **Fee exemptions for household use and public benefits**, felling of planted timber is exempt from reforestation fees, forestry resource fees and other taxes.

- **Fee exemptions for timber from plantations for domestic use and for export** - reforestation and forestry resource fees no longer apply; however income tax must still be paid;

- **Technical assistance** for collecting seeds and nurseries; and

- **Consideration of government supplied credit** for tree planting and the supply of saplings; although these have not always of high quality;

- **Finance and lending, insurance and risk management tools** - Early financing for tree planting came partly from a firm’s own equity or cash flow or from farmers’ savings and own labour but also from bank credit. Only one bank (the Agriculture Promotion Bank, APB) has participated in on-lending of the project’s funding, since when Lao commercial banks ceased lending for this purpose. Specific instructions/rules (e.g. Directive 0234/MAF regarding the management of plantations and planted forests 1995) were provided for plantations establishment in cases where funding was by way of a bank loan. However, the APB lending program faced issues due to the extent of non-performing loans associated with the ADB Industrial Tree Plantation project, reportedly requiring recapitalisation from the central government (Barney 2008).

- **Profit Sharing System (PSS)** - The Government initiated a Profit Sharing System (PSS) for farmers who lacked capital or tree planting experience/capacity. The system, was initiated in 1997, was piloted in two Districts of Vientiane Province under the assistance of the GOL/JICA Forest Conservation and Afforestation Project (FORCAP). Under PSS, plantations were jointly established by the Government and farmers; DAFO provided the initial funding in kind (seedlings, barbed wire, technology, expertise) and participating farmers provided their own resources, mainly land and labour, for planting and maintenance. Profits from thinning and final harvest were shared on a ratio of one fifth to DAFO and four fifths to participating farmers.

- **Donor assisted activities** - such as the funding of plantation registration through the LPTP.
TECHNICAL SUPPORT AND ASSISTANCE

RESEARCH AND EXTENSION

The plantation sector in Lao PDR is supported primarily by the National Agriculture and Forestry Research Institute (NAFRI). NAFRI is a technical department in MAF and was established in 1999 to consolidate agriculture and forestry research activities within the country and develop a coordinated National Agriculture and Forestry Research System. The Forestry Research Centre (FRC) and the National Agriculture and Forestry Research Centre (NAFReC) are both centres within NAFRI. FRC maintains programs related to silviculture (including rehabilitation of degraded lands and agroforestry), non-timber forest products (NTFP) and tree seed and tree improvement research. NAFReC is located at Ban Huaykot, 30 km south of Luang Prabang, and was established in 2004 as the first regional research centre established by NAFRI in its strategy to develop decentralised, multi-disciplinary research. Its roles include conducting studies and technical research on agriculture and forestry production technologies that have high productivity and ensure sustainability to meet the needs of the North (Midgley et al. 2011). NAFReC provides technical advice and extension services for the establishment and management of plantations, such as teak (see Hansen et al. 1997).

The National Forestry and Agriculture Extension Services (NAFES) was established in 2001 and was responsible for all forestry extension programs in Lao PDR. NAFES was supported by provincial and districts offices for the provision of technical services, inputs such as seeds, seedlings and stumps, together and advice on plantations. In 2012 Department of Agriculture Extension and Cooperatives (DAEC) was established to support districts and provinces to provide effective extension services. DAEC is a Department of MAF and supersede NAFES. The main duties of DAEC are to:

1) Promote farming for commodity production and food security; promote contract farming moving forward to establish new agriculture cooperatives or associations enabling development of a stronger economy at the grassroots level

2) Establish and improve technical service centres and extension staff at all levels (national, provincial, district and village)

3) Support and promote development of integrated agriculture production utilizing new scientific results, machinery and advanced technology of farming practices and potentials of commodity productions and integrated farming to increase productivity, improve quality and reduce production costs

4) Establish a system to dissemination and provide information services on production techniques, processing, marketing, utilization of water and prevention of plants and livestock disease

5) Promote sustainable development of cooperatives operating agribusiness and provision of services to access credit, use of scientific production techniques, access to domestic and international markets and exchange experiences within the country and abroad;

6) Develop a mechanism to cooperate with research institutes, other departments and development partners to mobilize resources and technical supports for development and implementation of programs and projects on agricultural extension, group and cooperative development. DAEC is also mandated to coordinate with development partners within and outside the country to contribute the development of agricultural sector in Lao PDR.

CAPACITY BUILDING

The National University of Lao PDR (NUoL) and Souphanouvong University both have forestry faculties with graduate degree courses across a range of topics. The National University of Laos is the premier Lao tertiary educational institution, with the highest quality and quantity of teaching staff within the
country. Within NUOL, the Faculty of Forest Science’s (FFS) mission is to (a) organize teaching and training, (b) conduct scientific research, (c) provide academic services to society, and (d) conserve and promote traditional Lao culture, as well as selecting good culture and practices from other nations.

Consistent with its mission statement, the FFS plays an important role in the management of forested areas within Lao PDR. Both MONRE and MAF, among other public and private entities in Lao PDR, recruit a large portion of their staff from the FFS.

Both universities are also partners in several ACIAR plantation projects on wood processing, marketing, silviculture and policy development.

Donor funded programs, including through ACIAR, have provided capacity building across a number of areas. For example:

- The LPTP, supported by TFT, has been undertaking training with farmers and farmer groups on a range of issue including plantation management and silviculture, plantation registration, log grading and log sales.
- The Provincial Forestry Section in Luang Prabang has built capacity in the use and interpretation of high resolution digital aerial imagery and Geographic Information Systems for mapping and classification of plantations.

**PUBLIC EDUCATION AND PROMOTION CAMPAIGNS**

Lao National Tree Planting Day (Arbor Day) is a mandated annual event, on June 1st, when the population is encouraged to plant trees. Article 47 of the Forest Law specifies establishment of a forest and forest resource development fund to promote tree planting. Officials use the occasion of Arbor Day to raise awareness of the need for increased forest cover, particularly among young people.

The most popular tree species planted are the Indian devil tree or mai tinpet (*Alstonia scholaris*), New Guinea rosewood or mai dou (*Pterocarpus indicus*), mai taekha (*Afzeleia xylocarpa*), mai khaen (*Shorea talura*), mai sack (*Tectona grandis*) teak and mai khaen, as they fetch a high price when felled and sold. Each year, the government teams up with companies and the public to prepare about 50 million saplings, with funding of 2 billion Kip (around $250,000USD) from the forestry development fund to publicise the Arbor Day tree planting.

National Arbor Day is primarily an awareness raising campaign, with the day providing an opportunity for announcements by both the Government and also development partners. Arbor day efforts are included in national targets for reforestation but the effectiveness of the program has been questioned, particularly with respect to survival rates; it is estimated that 70-80 percent of government-planted seedlings survive after planting due to lack of maintenance.

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12 [http://www.asianews.network/content/laos-unlikely-meet-tree-planting-targets-year-17224](http://www.asianews.network/content/laos-unlikely-meet-tree-planting-targets-year-17224)
10. **LAND TENURE AND PLANTATION DEVELOPMENT**

The areas in which plantation can be developed are determined through the Law on Land (No. 04/NA 2003) which regulates the categorization of land and the allocation of access and use rights to land. The land allocation process for plantations is summarised in Figure 8.

Land is categorised as:

- Agricultural land;
- Forest land;
- Water area land;
- Industrial land;
- Communication land;
- Cultural land;
- Land for national defence and security;
- Construction land.

Land can be changed from one category to another category only if it is considered to be necessary without having negative impacts on the natural or social environment and must be with the prior approval of the concerned management authorities.

Plantations can be established on forest land that has been allocated to individuals and households, or on State land or village land that is granted by concession or lease.

Generally, land areas for plantation projects should never include any of the following:

- Protection Forest
- Conservation Forest
- Local Production Forest
- Watershed Areas
- Forestlands with more than 20% of forest coverage
- Areas with slope more than 35% for tree plantations
- Military strategic areas
- Historical or tourist sites
- Other Government approved land concession project land.

In all cases plantations are to only be approved on land that is classified as ‘degraded forestland’ or ‘barren forestland’ located in rural or suburban areas.

**CONCESSIONS AND LEASES**

State land concessions for industrial tree plantations, forest rejuvenation, reforestation and non-timber forest product collection can only be granted on land appropriately zoned as:

- **Zone 1**: mountains, plateaus, plains without economic infrastructure which encourages the investment.
- **Zone 2**: mountains, plateaus, plains with partial economic infrastructure which encourages the investment.
- **Zone 3**: mountains, plateaus, plains with good economic infrastructure which encourages the investment.

Except for in necessary cases concession land areas should not cover land which is:

- Land held on private land title;
- Land that is under collective title;
Paddy land;
- Agricultural land for growing rice (not including swidden) or annual crops by local farmers; and
- Land on which people are residing or making a living, whether on a periodic or permanent basis.

In the event such land exists within a concession or state lease area, consultation must occur with the affected persons and compensation must be paid. In the case of paddy land, specific approval from MAF and the Land Management Department, MONRE must be obtained.

Where ever possible the use of Agricultural Land for concession based plantations should be avoided, unless it is in excess to current and future agricultural requirements.

The processes through which applications and approvals for concessions and leases are to be made are articulated in many legal sources and administered through several agencies at different administrative levels. MAF, MONRE, Local Government and MPI all have responsibilities for approving plantation investment projects, allocating land, registering plantations and managing the timber arising from them, compounding the costs and time required for investments to commence, become productive and provide a return.

SMALLHOLDER PLANTATIONS

Plantations may be established by individuals, household or businesses on land allocated to them through the Land and Forest Allocation Process. In accordance with the Land Law (Article 21) up to 3 ha of degraded or bare forestland may be allocated to each labour unit per household for timber plantation development or agroforestry (refer Smith 2014 for further details). Temporary Land Use Rights were provided for with plantation establishment which could be converted to permanent land-use rights, on application. More recently the issuing of TLUCs have been suspended and new participatory land use planning processes recognise a variety of documents to demonstrate existing land use rights (MAF and NLMA 2010).

The allocation of forestland areas greater than 3 ha for plantations must be by way of lease or concession.

PLANTATION DEVELOPMENT PROCESS

The process for plantation approval and development follows a number of pathways depending on the scale of the plantation project, the nature of the investment and the land allocation process. These processes are summarised in Figure 8. These factors also determine the level of environmental and social impact assessment that is required.

CONCESSION BASED PLANTATIONS

Concessions or leases are granted under agreements with National, Provincial, District and sometimes village authorities as detailed under the Law on Investment Promotion No. 02/NA 2009, the Forestry Law No. 06/NA 2007, and Land Law 04/NA 2003. The Presidential Decree No 135/PM on State Land Leases and Concessions 2009 establishes a set of general principles for the granting of leases or concessions of state lands, and Presidential Decree No. 02/NA provides a guide for range of land lease rates for concessions in the country. In line with the Prime Minister’s Decree No. 67/PM on the Organization and Function of the National Land Management Authority (2004) and Decree No. 135/PM on State Land Leases and Concessions 2009, approval for concessions of State land can be granted by the National Assembly, with agreement by the GoL, or at local level (Provincial Governors or Capital Mayor). A supervising committee, chaired by MPI has oversight of the concession or lease process (Smith and Alounsavath 2015).

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13 As defined under the Law on Land
ENVIRONMENTAL AND SOCIAL IMPACT PROTECTION MEASURES

Specific measures have been introduced to minimize and mitigate the negative social, economic and environmental impacts associated with different tree plantation development approaches. These are articulated in Law, regulations and guidelines as well as within codes of practice and standards for sustainability certification and corporate social responsibility.

Environmental and social management and protection measures are implemented at the landscape level though national, provincial, district and village planning processes and at the project level. Landscape level measures tend to be aimed at restricting the types of activities that may be undertaken in areas with defined characteristics to limit impacts, protect remaining environmental qualities or values or restore past degradation. For example, limiting plantations to areas that are already degraded is intended to prevent further deforestation and simultaneously restore forest cover. In terms of social or economic impacts, landscape level measures may be intended to protect high quality agricultural land and ensure that strategies for enhancing agricultural production and food security are effective.

At the project level, environmental and social management and protection measures tend to be focused on local level impacts and are based on considerations about the type of activity, the scale and the magnitude of the risks involved (Table 6).

In 2012 the Government of Lao PDR enacted the Environmental Protection Law (Revised), No. 29/NA as the framework law for environmental management. It incorporates the concept of an environmental impact assessment (EIA) as a key tool for the protection of environmental and social values and provides “principles, regulations and measures related to environmental management, monitoring and protection. Environmental Impact Assessment Guidelines have been developed to support the integration of the two objectives of ‘protection’ and ‘development’. These Guidelines provide a common framework for an Initial Environmental Examination (IEE) or for an Environmental and Social Impact Assessment (ESIA). They also guide project developers and their environmental consultants on the structure, content and scope of necessary reports, and ensure that reporting is consistent with legal requirements, good practices and professional standards (UNDP 2014). Environmental and social impact assessment and mitigation have been articulated in legal texts and guidelines. The roles, responsibilities, obligations and requirements are outlined under the Ministerial Agreement on Endorsement and Promulgation of a List of Investment Projects and Activities Required for Conducting Initial Environmental Examination or Environmental Impact Assessment, No. 8056/MONRE 2013; Ministerial Instruction on Initial Environmental Examination of the Investment Projects and Activities, No. 8029/MONRE 2013, and Ministerial Instruction on Environmental and Social Impact Assessment of the Investment Projects and Activities, No. 8030/MONRE 2013. While these guidelines are reasonably comprehensive current implementation is largely based on the level of knowledge of the consultant company that is engaged to undertake the assessment. Government employees who are responsible for the ESIA have limited capacity in terms of their expertise, experience and knowledge. Some are from non-forestry or natural resource management backgrounds. In addition the level of resourcing is inadequate.

Forestry plantation projects are divided into two categories for environmental and social impact assessment and reporting purposes: Category I - Small scale investment projects with minor environmental and social impacts requiring an initial environmental evaluations (“IEE”); and Category II – Large-scale investment projects which are complicated or create significant environmental and social impacts requiring an environmental impact assessments (“EIA”). Industrial tree plantations of 20-200 ha are considered to be Category I projects while plantations &gt;200 ha are considered to be Category II projects. Projects that are outside of the above listed categories will either be considered too small scale to require an IEE or EIA, or will be individually screened by MONRE based on additional criteria, and possibly the advice of MAF, to determine if either an IEE or EIA is required or in no assessment is necessary (EIA Decree Article 6) (UNDP 2014).
Additional “social categories” exist with respect to the social studies and plans that an investment project is required to conduct. For example a project with large-scale social impacts may be required to submit a Social Impact Assessment, and Resettlement Plan and/or Ethnic Minority Development Plan, Resettlement Plan and/or Land Acquisition and Compensation Report to DESIA for approval.

MONRE leads the study and identification of policies, strategies, regulations, methods and measures for environmental protection. The environmental management organizations consist of:

- MONRE
- Provincial or Capital DONRE
- District or municipality office of natural resources and environment
- Village unit of natural resources and environment

These organisations are also the environmental inspection agencies that work with other agencies such as the National Assembly, State Inspection and Anti-Corruption Authority, State Audit Authority, DoF and DoFI.

INDIVIDUAL OWNED PLANTATIONS

Once land has been allocated for use as a plantation, individuals may establish their trees without further approvals. Plantations should be inspected by District forestry officials after three years, to ensure that they conform to standards set in the relevant regulations.

Environmental and social mitigation measures for small scale plantations (<20ha) fall outside the ESIA process, and requirements are included in the relevant legal texts and departmental guidelines, as summarised in Appendix 6. However, smallholder plantations may require that a technical and socio-economic assessment is made where plantation are greater than 5 ha or where several plantations less than 5ha are to be established on adjoining land, regardless of whether this land is owned by one or many different individuals. Regulation 0196/AF 2000 sets out in very broad terms the measures that are required in this assessment. Instruction No 1643/DOF 2010 on the development of a feasibility study on industrial trees and NTFPs plantation investment contains more comprehensive guidelines. However, this is only applicable to concessions granted under Article 74 of the Forestry law, not to plantation on land allocated to individuals.

Table 6: EISA requirements for Plantation Projects

<table>
<thead>
<tr>
<th>Land Type</th>
<th>Plantation size</th>
<th>Forestry Assessment required</th>
<th>Environmental assessment required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocated to Individuals</td>
<td>&lt;0.16 ha (scattered planting)</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Allocated to Individuals</td>
<td>0.16-3 ha</td>
<td>Nil, unless plantings are grouped with a combined area &gt;5ha</td>
<td>Nil</td>
</tr>
<tr>
<td>Allocated to Individuals</td>
<td>3-5 ha</td>
<td>Nil, unless plantings are grouped with a combined area &gt;5ha</td>
<td>Nil</td>
</tr>
<tr>
<td>Allocated to Individuals</td>
<td>&lt;5a (using bank loan)</td>
<td>Technical assessment</td>
<td>Nil</td>
</tr>
<tr>
<td>Allocated to Individuals</td>
<td>5-20 ha</td>
<td>Technical assessment</td>
<td>Nil</td>
</tr>
<tr>
<td>State land concession</td>
<td>20-200 ha</td>
<td>Technical assessment</td>
<td>Feasibility Study</td>
</tr>
<tr>
<td>State land concession</td>
<td>&gt;200 ha</td>
<td>Technical assessment</td>
<td>Feasibility</td>
</tr>
</tbody>
</table>
PLANTATION REGISTRATION

After a period of three years plantations should be registered with the Department of Forestry, however, in the case of smallholder plantations this regulation is not widely complied with despite exemptions from land tax and other fees and charges. Plantation land-use rights, and plantation registration, have come to be viewed as a means of *de facto* land ownership and markets for plantation and plantation land have emerged. Compliance with plantation registration requirements remains low due to prohibitive costs, lengthy and technical administrative procedures, unclear regulations and lack of enforcement (Smith *et al.* 2016). There is a common perception that plantations only need to be registered when trees are to be harvested.

Plantation registration has, more recently, become the necessary evidence for demonstration of legal source of origin for plantation timber; legally plantation timber cannot be sold unless it is registered. Applications for plantation registration are often made at the time of sale or harvest, and the process may either be completed by grower or timber traders.

ACIAR project FST/2010/012 has been investigating alternative approaches to plantation registration and demonstrating the source of origin for plantation grown wood (Smith 2014; Smith 2016). This research proposes an option that allows for local level institutions to authorise timber sales without the need for smallholder to undergo the full plantation registration process.

TEMPORARY BAN ON SOME NEW PLANTATIONS

In 2012, a temporary ban (Decree 13/PM 2012) on the approval on some types of new mining and plantation investment projects involving rubber and eucalyptus was put in place, and was reiterated in 2015 and 2016. This ban has made it difficult for plantation investors to access the land necessary to sustain and build their enterprises.
Figure 8: Land Allocation to Plantations

Regions/Zones

- Urban Regions
- Specific Economic Regions
- Rural Regions
- Special Economic Regions

Land Types

- Communication
- Industrial
- Cultural
- Agricultural
- Forestland
- Water
- Construction
- National Defence

- Protection Forest
- Conservation Forest
- Production Forest
- Unclassified Forest

- Degraded forestland
- Barren forestland
- Village Forest Land

Other land types can be converted

Converted Land Types

- >3 ha per labour force per family, individual or business
  - Concession or Lease
- <3 ha per labour force per family, individual or business
  - Land-Use Right

Plantations should be established on Forestland; agricultural land should be avoided.

Plantations should be established in production forestland or unclassified forestland.

Plantations should be established only on degraded or bare/barren forestland.

Natural forest should not be cleared for plantations.

Plantations can be established on village lands that are not allocated for another purpose.

Utilization for public benefits

Utilization for business operations

Utilization for households
Figure 9: Plantation Approval/Development Process
11. **MARKETS**

Markets are a key driver for plantation development in Lao PDR, particularly the domestic processing of products for export.

**WOOD SUPPLY AND PRODUCTION**

Precise statistics on wood production in Lao PDR are difficult to obtain, and there are discrepancies in production, consumption and export data. There are no consolidated statistics on wood production from Eucalyptus or Acacia plantations. Data on yields and harvesting are held by individual companies (Smithies *pers. comm*).

With respect to teak, the statistics are not reliable. In 2006 it was estimated that over 7000 m$^3$ of plantation-grown teak was harvested in Luang Prabang Province and 20,000 m$^3$ in 2010 (Savathvong 2010). Midgley *et al.* 2015, however, note that substantially higher volumes are reported by importing countries than those recorded in official Lao trade statistics. In 2012, for example, combined imports to China, Thailand and Vietnam were reported as 10,670m$^3$ while exports from Lao were recorded as 3,655m$^3$. Similar variations where found for 2013.

The absence of mapping, inventory, and appropriate growth and yield models for teak and other naturally occurring species has meant that predicting volumes and long term supply has been difficult. Research being undertaken by two other ACIAR projects is addressing this issue. For example, in Luang Prabang province over 15,000 ha of teak plantation has been mapped and classified down to 0.35 ha parcels. Combined with field based inventory and the application of growth and yield models, to be undertaken during the next phase of that project, a better picture of the nature of that resource will be developed (Boer and Seneanachack 2016).

**DEMAND FOR WOOD**

Plantation wood is consumed locally, processed domestically and exported. The volume of wood that is consumed locally, by households and within villages, is not known.

The bulk of log and wood exports from Lao PDR are either unprocessed logs or basic sawn wood and planks, with minor quantities further processed into components, strip parquet flooring, furniture and various other secondary products.

**TEAK**

Midgley *et al.* (2012) found that Lao exports of timber derived from plantations were dominated by teak, a large proportion of which was in the form of squared logs. The main markets are China, Thailand and Vietnam, and India is emerging as a purchaser of Lao teak (Midgley *et al.* 2015). Keonakhone (2005) estimated that about 95% of the teak wood produced in Luang Prabang was exported and 5% used locally, which includes teak residues produced in preparation of squared logs. Teak is used by domestic wood processors and furniture makers, although volumes are low (ACIAR FST/2010/012 unpublished data) and there is still a dependence on and preference for wood from natural forests.

Teak thinnings are sold as poles although this is not a formally recognised wood product in regulations.

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14 ACIAR project FST/2010/012 Enhancing Key Elements of Value Chain for Plantation Grown wood in Lao PDR and project FST/2012/041 on Teak-based Agroforestry Systems to Enhance and Diversify Smallholder Livelihoods in Luang Prabang Province.
EUCALYPTUS AND ACACIA

A number of domestic mills have been established for the processing of *Eucalyptus*, however the market is currently limited. One company (Burapha Agroforestry Co.) is producing construction poles for the domestic market and customised furniture products for domestic and niche markets in Asia, North America and Europe. Sticks trimmed from logs during processing are used for fences, screens and ornamental material for luxury resorts in Asia. Another company is exporting high quality wood logs through Vietnam for construction poles, chipping, pulp and MDF (Earth Systems 2016).

Veneer processing is being undertaken by a number of local processors to supply Thailand, Vietnam and China. Thai companies have also purchased eucalyptus logs in Lao PDR.

The development of pulp mills has stalled due to challenges with land availability for plantation establishment of an area necessary to make such projects economically viable. This is exacerbated by Order No. 13/PMO 2012, which placed a temporary ban on new concessions.

In all cases Prime Minister’s Order No. 15/PMO 2016 has temporarily suspended the export of all planted wood logs and unfinished products, although some exceptions have been negotiated.¹⁵

Households consume large volumes of wood in Lao PDR and there is potentially a significant volume of wood that is produced locally from a range of sources including planted trees, and that is also consumed locally, and hence is largely unregulated and unaccounted for. Some estimates are that household consumption of wood for construction may be as high as 1 m³ per year, and wood consumption for other uses such as fuel wood may be as much as 1 m³ per person per year.

PROCESSING

The Government of Lao PDR has a policy to promote domestic wood-processing factories (WPF) by linking the regulation of their operations to timber harvesting, quotas and plantation investment, and by

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promoting only the export of processed wood. Many attempts have been made to both regulate and
develop the wood processing sector, and limit the export of round logs.

In 2006 MOIC took over the responsibility for regulating the wood processing industry from MAF and
issued a series of new regulations aimed at making the export of timber and wood-based products the
exclusive right of the central government. The transition in administration from MAF to MOIC was not
straightforward. Various efforts (e.g. Order No 17/PM, 2008) have been developed to improve
collaboration between MOIC and MAF across a range of areas concerning the operational standards and
management of wood processing, including sawmills and wood working factories and to develop
regulations with respect to operation of harvesting businesses, tree plantation groups, wood and wood
product merchants and wood product exporters.

The Law on Industrial Processing determines the principles, regulations and measures relating to the
establishment, operation and administration of industrial and handicrafts processing. In 2009 Decision
0719/MOIC 2009 was implemented to reform and modernize all levels of timber processing, including
small household sawmills and factories. It defines three levels of processing and classifies manufacturers
according to ISIC codes and specifies processing standards, including for environmental protection and
OH&S, as well as products standards. Within this Decree WPFs are classified into 3 types:

- Wood processing factories I (type I) include sawmill, semi-finish wood product factory, with codes
  1610, 1621, 1622.1, 1701.1, as: sawn wood, square, re-sawn wood, rotary veneer, slice veneer,
  and pulp.
- Wood processing factories II (type II) include finished wood product factory, and furniture factory,
  with codes 1621, 1622.2, 1623, 1624, 1629, 1701.2, 1702, 1709, and 3100, as: wooden house,
  frames, door, window, stair, parquet, flooring, plywood, particle board, fibre-board, box, palette,
  paper, paper utensil, wooden furniture (tables, chairs, chests, beds), decorative wood, woodcrafts
  and carving products.
- Small size wood processing factories run by households (including small wooden furniture), with
  less than 10 employees, and less than 5 horse power, are classified in type II, and with codes
  1629, 3100, as: tables, chairs, chests, beds, wood crafts and curving products, decorative items,
  photo frames.

For small sized (family/household) processing facilities the decision specifies the source and grade of
timber that can be used as being: timber from level I manufacturing (sawmills and semi processing
manufacturers) branches, roots, stumps and other waste woods. Specific prohibitions are provided,
including:

- the harvesting and input of illegal timbers (according to the rules and regulations of the forestry
  sector) as raw materials;
- the sawing or cutting of timbers for commercial uses, only allowing for the processing of timbers
  with a purpose of internal manufacturing.
- the use of its own raw material for any commercial purposes.

Small processing manufactures that meet conditions and standards of this Decision must apply for a
permit to operate. In September 2016\textsuperscript{16}, over 1154 family processing and furniture plants were shut down
by the government for operating without a permit or for being located in or near forest conservation areas.
This will have implications for the production and supply of low quality household furniture that is
consumed locally.

With the close of these factories there are an estimated 445 registered wood processing and timber
manufacturing plants remaining in Lao PDR.

\textsuperscript{16} Vientiane Times 2\textsuperscript{nd} September 2016 “More than a thousand furniture plants ordered to shut down”.
CERTIFICATION, LEGALITY AND OTHER STANDARDS

Forest policy in Lao PDR is increasingly influenced by the requirements of consumer markets and the increasingly strong calls that are being made globally and regionally for sustainability and legality in forests, forest industries and related trade. The response of Lao PDR’s trading partners is particularly important. Approaches to certification verification and governance in forestry in Southeast Asia are described in detail by the World Bank (2012). In Lao PDR there are two main approaches: voluntary certification and legality assurance.

CERTIFICATION

Certification programs are voluntary. They are based on the premise that consumers demand and will pay for timber that is sourced from sustainably managed forests, including plantations. The two most common forms of certification are

- Forest management – ensuring forest operations are managed sustainably; and
- Chain of custody – tracking certified material from forest to final product

Certification programs apply a set of standards based on criteria. Once a forestry operation has received certification, they are bound by the standards of the certifying organisation.

The two most prominent certification organisations are the Forest Stewardship Council (FSC) and the Program for the Endorsement of Forest Certification (PEFC) an umbrella organisation endorsing domestic forest certification systems across the globe. China, Australia and Indonesia, for example, have each developed their own national standard under PEFC. Within these certification programs there is a requirement for chain of custody to enable products to be tracked from harvest to purchase by a consumer. Chain of custody certification is the mechanism used to ensure the traceability of wood material from a certified forest to any point along on the supply chain. It is required to substantiate any claim that wood and wood products are obtained from a certified forest.

From the Lao PDR context Flanagan and Laity (2015) describe and review the various forest certification and verification schemes in detail. They note that programs to establish management systems based on certification programs have been operating in Lao PDR since the late 1990s for a range of forest types and products including timber from State-owned natural forest and plantations as well as community grown wood, rattan and bamboo. Table 7 (based on Flanagan and Laity 2015) provides an overview of certification and verification systems which have operated in Lao PDR.

In 2012 Lao PDR had about 2% (132,162 ha) of production forests FSC certified of which more than 99% was in natural forest, issued to state or village groups, and less than 1% in forest plantations, issued to private groups. By July 2016 one plantation company, Burapha Agroforestry Co., was the only entity in Lao PDR with current certification.

Certification Issues and Challenges

A common characteristic across certification initiatives is the requirement for flexible approaches if sustainable forest management outcomes are to be achieved. It is also critical that unrealistic economic expectations are not promoted, because they can potentially undermine the benefits such systems provide (Flanagan and Laity 2015). The failure for market benefits to materialise following certification is one reason that programs fail. Other factors constrain the development of sustainable enterprise based on smallholder grown wood (Ling 2014). The integration of teak into farmer livelihoods wherein timber production may not be primary driver for planting trees (Newby et al. 2014; Smith et al. 2016) can limit the ability for regular consignment of wood that meet market quality to be compiled. Farmers decide when to harvest trees on the basis of need, and supply is therefore unpredictable.
The complexity and increased costs associated with meeting and maintaining certification standards, in addition to already high transaction costs for plantation timber, are a deterrent to participation by smallholders. Even donor funded programs, such as the LPTP, which are aimed at assisting smallholders through the certification process, have found it difficult to certify a large enough area to supply wood volumes at a level that meets market demand. This has flow on impacts on efforts to establish grower groups and farmer enterprises around certified timber resources (Ling 2014). For example, in 2016 LPTP opted to cease its certification program due to low volumes and the absence of a price premium for the certified wood (Masias Bröcker pers. comm.). Farmers were unwilling to commit to membership of farmer grower groups, which were being trailed as a means to facilitate market access; other cheaper and easier avenues for wood sales were available, such as to Chinese traders (Ling 2014, Smith et al. 2016).

For timber processors who have adopted Chain of Custody systems, this limited supply of certified wood also makes it difficult to maintain the level of processing of certified products that is needed to meet consumer demands. Furthermore, because no premium is being achieved for their certified products (or the returns do not exceed the costs) (Flanagan and Laity 2015) benefits cannot be passed back to the growers. Companies have indicated that the strength of markets that do not require certification, but which are price competitive, are an attractive option (Flanagan and Laity 2015); and evidence suggests that the price paid to growers for teak logs by Chinese traders is certainly competitive with domestic markets (Antilla 2016). In some cases traders do not require smallholders to demonstrate legal compliance or they are able to fast-track or circumvent regulatory procedures (Smith et al. 2016, Schneider 2014) and regulatory costs are minimised as a result.

For larger plantations issues have emerged that are impacting the ability for certification standards to be achieved and maintained. Oji Plantations, for example cited “untenable conflict within the Lao People’s Democratic Republic Laws and working to the Forest Stewardship Council (FSC)’s principles” as a reason for not renewing its FSC certification in 2015. The critical issue was strongly related to the actions of the company as regards several principles of the FSC, but with specific reference to FSC Principle 10 criterion 10.9. FSC Criterion 10.9 states that “Plantations established in areas converted from natural forest after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion”. Within Lao PDR this issue arises because, while land that can be allocated for plantation should be classified as degraded or bare forestland, in reality such areas may support secondary or degraded natural forest. This means that in the process of plantation establishment natural forest may be cleared. Other issues related to the level of consultation with affected communities and whether community agreement had been obtained with respect to the land agreement. This task can be challenging where responsibility for providing land for plantation is decentralised and where local people have limited opportunity to participate in land allocation processes for investment purposes.

Furthermore, the level of support for certification is not well established in Lao PDR. Many officials in the government, at both the provincial and central levels, reportedly do not support certification. Alternative strategies under consideration include the WWF-GFTN and Conservancy (TNC) Responsible Asia Forest and Trade (RAFT) initiatives, which offer market access for legal and certified wood.

---

<table>
<thead>
<tr>
<th>Entity</th>
<th>Type</th>
<th>Structure</th>
<th>Extent</th>
<th>Stakeholders</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lao PDR Government, FSC</td>
<td>Natural Production forests FSC certified</td>
<td>Central government group with 15 members</td>
<td>3 provinces, 5 districts for natural wood and rattan</td>
<td>DoF, SUFORD, WWF</td>
<td>Established in 1990s. FSC certification in 2012 Ceased in 2015</td>
</tr>
<tr>
<td>FLEGТ</td>
<td>Focal point for establishment of VPA</td>
<td>Steering committee</td>
<td>Lao PDR Government Forestry Sector</td>
<td>MAF, DoF, EU, GIZ, LNCCI</td>
<td>Focal point established in 2009 Negotiations ongoing</td>
</tr>
<tr>
<td>LPTP</td>
<td>Project to support smallholders management and marketing including FSC certification</td>
<td>Provincial Forestry Section group entity with farmer group</td>
<td>10 villages and three districts in Luang Prabang. Around 1000ha between FSC and pipeline</td>
<td>Lao PDR Provincial Forestry Section, TFT, JICA, ACIAR and smallholders</td>
<td>Established in 2008 FSC certified group entity in 2010. Certification ceased in 2016</td>
</tr>
<tr>
<td>Burapha Agroforestry Co.</td>
<td>Agroforestry development and furniture factory.</td>
<td>Private business</td>
<td>Vientiane plantations and country-wide wood purchasing</td>
<td>Company and smallholders.</td>
<td>Established in 1991, FSC certified in 2010 (CoC) and 2012 (FM).</td>
</tr>
<tr>
<td>Oji Lao Plantation Forest Co</td>
<td>Industrial plantation</td>
<td>Joint venture</td>
<td>Target to establish 50,000 Ha (around 50% established)</td>
<td>GoL and Oji Lao Plantation Holding</td>
<td>Commenced in 1999, FSC certified in 2013. Certification terminated in 2015</td>
</tr>
</tbody>
</table>

**LEGALITY VERIFICATION**

Legality verification requires that participants demonstrate that they comply with the relevant laws of the producer country, as described in a framework set by the program and require a level of traceability of legal timber at all points in the supply chain.

Some voluntary certification bodies have introduced legality standards as a second (lower) tier of certification below sustainability.

Consumer countries such as Australia, The United States and The European Union (EU) have enacted domestic legislation to reduce the risk of the importation of illegal timber. Of these the EU Forest Law Enforcement, Governance and Trade (FLEGT) program is the most prominent in Lao PDR. The program includes financial and technical support and advice, as well as measures to promote the legal timber trade. Voluntary Partnership Agreements (VPAs) established between the EU and timber-producing...
countries are a central component of the scheme which requires the development of Timber Legality Assurance System which has five core components:

- The legality definition
- Supply chain control
- Verification of compliance
- FLEGT licensing
- Independent audit.

Lao PDR has entered negotiations with the EU on a VPA and a TLAS is under development. Timber from land to be converted to plantations, plantations and plantation grown wood are all included within the scope of the FLEGT-VPA. Special consideration is being given to smallholder plantations. Once verified as legal, countries can give FLEGT licences to timber products destined for the EU market.

Issues with Legality Verification

While the EU FLEGT process is still ongoing, issues have been identified in response to processes undertaken elsewhere. One issue is that the processes of developing the TLAS and legality definition may embed regulations that are excessively complex or difficult and costly to comply with. For smallholders in particular this risks alienating from the markets which are supposed to provide a price and/or perversely pushing them towards informal markets with lower compliance standards, but potentially competitive prices, as described above. There is a need for laws and regulations to be reviewed on the basis of first principals and where necessary reformed, before they are included within legality definitions.

Second, the effectiveness of legality programs is highly dependent on local law enforcement, which may be under resourced or for whom monitoring plantation timber trade may not be a high priority, when compared with the risk of illegal logging from natural forests or wildlife trafficking. While funding and capacity building for domestic law enforcement is a component of EU-FELGT programs the demands on imported wood from both international markets and end users have also created a need to expand legality monitoring systems beyond the national borders. This can be viewed as an imposition on national sovereignty or as complementary to law enforcement, lending legitimacy and credibility to the forest management system, thus reassuring consumer countries (World Bank 2012).
12. RISKS

Plantations face many risks. Smallholders are often viewed as vulnerable because they bear a disproportionately high share of the risks associated with tree plantations (Midgley 2006). However, a similar position could be taken with respect to all growers in the plantation value chain. Technical, environmental, market, livelihood and policy/regulatory risks are all present.

MARKET RISKS

- Fluctuations in price
- Changes in wood quality, specifications and standards
- Changes in consumer demands (such as design needs)
- Market competition
- Introduction of consumer country certification or legality measures (also a regulatory risk)

POLICY AND REGULATORY RISKS

- Changes in policy with respect to land availability (e.g. No.13/PMO 2012 banning some new concessions; the new Land Policy)
- Changes in regulation restricting market access (e.g. No 15/PMO 2016 banning round log exports)
- Introduction of new regulations that add to costs of production (e.g. the introduction of EISA regulations increasing establishment cost, or phytosanitary requirements required for export)
- Introduction of new regulations to meet the requirements of importing and consumer countries
- Delays or failure in land registration and titling process

TECHNICAL AND ENVIRONMENTAL RISK

- Impact of disease or pests
- Impacts of natural disasters such as drought, floods, snow/frost or fire
- Climate change
- Lack of skills or expertise, e.g. appropriate silviculture

LIVELIHOOD RISK

- Changes in socio-economic condition resulting in unplanned harvesting or plantation sale (smallholders)

Loss of plantations due to compulsory acquisition for National development projects.
13. CONCLUDING REMARKS AND RECOMMENDATIONS

CONCLUDING REMARKS

Lao PDR has a complex planning process designed to progress its national socio-economic development strategies. The making of strategies, planning and policy formulation in Lao PDR has remained linked to development assistance and with it to the motivations and agendas of donor countries, whether these are economic, social, humanitarian, environmental or political. Efforts to simultaneously join the global community but retain national identity have resulted in a hybrid approach to policy making - centralised decentralisation - and this has implications for the formulation and implementation of future development goals and policies.

There is no shortage of high-level statements on priority issues, and many sectoral strategies and implementation plans have been developed with international donor support. Broad policy statements satisfy the expectations of partners but appear to be at the expense of approaches specific to the needs of Lao PDR. Many of these strategies are underpinned by target-driven indicators of success, which may send a clear signal of commitment, but which may not be particularly useful in understanding policy effectiveness or in pointing to areas that need reform.

Policies for plantation forestry have transitioned in national strategies from being a poverty reduction tool and a means to help stop land and forest degradation, to become a mechanism for attracting foreign investment, developing a national industry and increasing forest cover. One very simple target – establishing 500,000 ha of plantations has become a key indicator of success, but in reality this provides little indication of whether policies for plantation development have been effective in achieving their broader objectives. This review suggests that not all policy objectives have been achieved; fundamental tensions exist between central policies and local realities. Describing and mapping out the relationships between plantation production systems and policy objectives helps to understand the effectiveness of those policies and as well as the factors that have constrained them. It will also assist in the identification of options for targeted and more detailed research for policy and institutional change for plantation development.

Overtime the process of policy making and implementation has successfully promoted plantations but has also created a complex and diverse set of supply and demand arrangements for plantation grown wood. On the supply side a heterogeneous typology of plantation systems is evident in which many actors may participate in the production of plantation grown wood. The resource is diverse in terms of species, age-class, condition, ownership arrangements and availability. On the demand side, timber flows along several value chains – local, domestic and export based. The domestic industry is immature and unable to compete with international markets.

The policy environment and regulations for plantations have evolved from those designed for systems of timber production from natural forests. As the protection of the natural environment has become an increasingly important policy in Lao PDR, the regulations to manage and control timber flow have tightened. As a consequence the plantation wood value chains are heavily regulated and in some areas governance and administrative requirements are complicated and have created bottlenecks.

Investment promotion policies have encouraged investment in industrial scale plantations but land policies have constrained access to the necessary land resource base. In response multiple pathways have been utilised to gain access to land.

Land policy and land allocation programs have also created a complex set of investment perspectives amongst smallholders who have opted to integrate tree plantations into their livelihood strategies. For some these strategies are not motivated by timber production objectives, but rather by maintaining tenure.
security and the protection of land use rights. This has implications for a range of issues including plantation management practices which influence wood quality, harvesting regimes which impact wood availability and regulatory compliance. As a result the wood processing sector remains challenged by an irregular and unpredictable supply of wood that may not meet input specifications, output standards or market based requirements for legality.

The policy and regulatory environment has not evolved in line with the development of these diverse plantation arrangements. There is a need to better understand what these arrangements are and how policies have affect or been affected by them so that new policies and an enabling environment can be created. This needs to balance between government, grower, industry and environmental needs.

RECOMMENDATIONS

Based on this review a number of preliminary recommendations can be made as a basis for further analysis and development of more detailed policy options.

That the Government of Lao PDR:

1. Continue its current review of tree plantation policy to provide a simpler and more transparent policy framework for the establishment, management and production and use of plantation grown wood.

2. Clearly indicate an overall vision for the tree plantation sector, spelling out the multiple objectives for plantations, the ways in which these objectives can be achieved and how the benefits and costs of different types of plantations will be distributed.

3. Clearly separate tree plantation policy and regulations from those governing management, harvest and use of wood from natural forests.

4. Simplify and clearly indicate the agencies and levels of government responsible for different aspects of plantation development and use of plantation wood.

5. Develop mechanisms to clearly communicate these policy arrangements and responsibilities to all levels of government and other industry and community stakeholders.

6. Build capacity within these agencies based on a new governance rationale aimed at facilitating plantation growing and wood use rather than capturing revenues for government. This includes investment in research and extension and advisory capacity to smallholder growers.

7. Invest in broader inventory of tree plantation resources and their capacity to contribute to potential wood supply, including trees on farms, village plantations and different levels of private ownership and undertake regular assessments of the usage and value added to plantation grown wood.

8. Consider potential financial mechanisms (such as levies on plantation area or timber production and processing) to support cooperative research between the processing industry, and larger private and smallholder growers.

9. Establish mechanisms for regular evaluation and review of tree plantation policies.
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Antilla, J. P. (2016) Implications of middlemen in smallholder teak production systems in Northern Lao People’s Democratic Republic (Lao PDR), Unpublished Master’s Thesis. Faculty of Agriculture and Forestry, Department of Forest Sciences, University of Helsinki.


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Sisanonh, S. (2013) *Support for Farmers Organizations*, Presentation to the Sector Working Group on Agriculture and Natural Resources (SWGANR), Powerpoint presentation/


UNDP (2011) *People’s Perspective on Access to Justice Survey in Four Provinces of Lao PDR UNDP-Lao PDR.*


14. APPENDICES

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Appendix 1: National Socio-Economic Development Planning Process
Appendix 2: Priority Policy and Programs as set out in the Forestry Strategy 2020

- To formulate national land policy and introduce land use planning both at macro and field level.
- To enhance village based natural resource management for poverty eradication.
- To introduce reliable systems for harvest determination.
- To control unsustainable harvest and export of NTFPs and promote sustainable participatory management and processing of NTFPs.
- To improve performance of the wood industry including bringing processing capacity into closer accord with the sustainable timber supply and processing of more finished products.
- To promote tree planting and management by setting clear purposes with relevant target owners and markets, and investment schemes to strengthen wood supply base and farmers’ income base.
- To control unsustainable harvest and export of NTFPs and promote sustainable participatory management and processing of NTFPs.
- To control unsustainable harvest and export of NTFPs and promote sustainable participatory management and processing of NTFPs.
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- To control unsustainable harvest and export of NTFPs and promote sustainable participatory management and processing of NTFPs.

These will be implemented through:

- Completing and improving the forestry related legal framework, clearly defining different stakeholders’ responsibilities and providing sound criteria for, and transparency in, decision making.
- Improving sector efficiency and strengthening international competitiveness through greater market-orientation.
- Completing decentralization process or bottom-up planning and implementation system and capacity building, especially at local level.
- Maximising benefit generation through innovative mechanisms and equitable allocation.
- Mobilizing effective international cooperation
## Appendix 3: The Hierarchy of Laws

<table>
<thead>
<tr>
<th>Text</th>
<th>Authority</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constitution&lt;sup&gt;18&lt;/sup&gt;</td>
<td>National Assembly</td>
<td>The Constitution clearly delineates the powers and duties of the political regime, the socio-economic system and the rights and duties of Lao citizens.</td>
</tr>
<tr>
<td>Law</td>
<td>National Assembly</td>
<td>A law is legislation that is developed by the authorized authority, adopted by the National Assembly and promulgated by the President of the Republic that defines principles, regulations and measures governing social relationships in many areas or in a specific area, and is effective nationwide and is long lasting.</td>
</tr>
<tr>
<td>Resolutions of the National Assembly</td>
<td>National Assembly</td>
<td>A Resolution of the National Assembly is a decision on a specific matter brought into discussion at the National Assembly session related to a social-economic development plan, state budget plan, implementation of a law and other matters under the mandate of the National Assembly.</td>
</tr>
<tr>
<td>Resolution/Directive of the Standing Committee of the National Assembly</td>
<td>National Assembly Standing Committee</td>
<td>Resolution on any matter brought into a meeting of the Standing Committee of the National Assembly on the implementation of a resolution of the National Assembly, the inspection of the implementation of the Constitution, laws including interpretation of the Constitution, and laws and other matters under the rights and duties of the Standing Committee of the National Assembly.</td>
</tr>
<tr>
<td>Presidential Ordinance</td>
<td>President</td>
<td>A President Ordinance is legislation that defines principles, regulations and measures for governing social relationships or amending selected articles of a law issued by the President of the Republic in accordance with the proposal of the Standing Committee of the National Assembly.</td>
</tr>
</tbody>
</table>
| Decrees of the Government          | President                          | A Government Decree is legislation of the Government issued to:  
  1. Implement a resolution of the National Assembly, resolution of the Standing Committee of the National Assembly, social-economic development plan and a strategic plan;  
  2. Govern social relationships in a certain area to meet the needs for State management and social-economic management where conditions to make a law is lacking;  
  3. Establish the organization and activities of a ministry and a Government agency. |

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<sup>18</sup> The Constitution of Lao PDR was adopted on 15 August 1991 and was amended for the first time on 6 May 2003. This first modern Constitution of Lao PDR abolishes the former constitutional monarchy and establishes a unicameral National Assembly.
<table>
<thead>
<tr>
<th>Text</th>
<th>Authority</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Government may also issue a decree to instruct the implementation of a law by elaborating and providing detailed explanations to certain articles of the law to make it easier to understand and to ensure uniform implementation of the law or in case that the law required that specific regulations shall be developed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orders (Decrees) and Decision of the Prime Minister Decree,</td>
<td>Prime Minister</td>
<td>Orders (Decrees) and Decision of the Prime Minister Decree, as above for Decree of the Government</td>
</tr>
<tr>
<td>Orders, Decision and Instructions of the Minister or Head of Government Authority</td>
<td>Heads of Relevant State Organizations</td>
<td>Orders, Decision and Instructions of the Minister or Head of Government Authority, An Order is legislation issued by the head of the relevant Government agency to require individuals or organizations to implement a plan, laws, Presidential Decree and other legislation and other matters under their scope of rights and duties. A Decision is legislation issued by the head of a relevant government authority to implement its rights and duties or to elaborate and implement higher government legislation. An Instruction is legislation that is issued by the head of a government authority to implement the National Social-Economic Development Plan, the State Budget Plan, a law, other legislation, a plan or certain activities by providing a general understanding, methods, procedures and the use of equipment, timeframe for the implementation, coordination and others.</td>
</tr>
<tr>
<td>Orders, Decision and Instructions of the Provincial or City Governor</td>
<td>Provincial or City Governor</td>
<td>Orders, Decision and Instructions of the Provincial or City Governor, as above, as issued by the Governor of a Province or City</td>
</tr>
<tr>
<td>Orders, Decision and Instructions of the District or Municipal Chief</td>
<td>District or Municipal Chief</td>
<td>Orders, Decision and Instructions of the District or Municipal Chief, as above, as issued by the Head of a District or Municipality</td>
</tr>
<tr>
<td>Village Regulation</td>
<td>Village Authorities</td>
<td>Village Regulation, A village regulation is a legislation that is issued by the village authority to implement legislation of higher level or to manage the security and public order under its jurisdiction.</td>
</tr>
</tbody>
</table>
Appendix 4: The Law Process for Making Law in Lao PDR
## Appendix 5: Legal Instruments related to the plantation value chain

<table>
<thead>
<tr>
<th>Legal Source</th>
<th>Ministry Responsible</th>
<th>Scale/Scope of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plantation Establishment and Registration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law No. 01/NA on Contract and Tort 2008</td>
<td>MOF</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Law No. 02/NA Investment Promotion 2009</td>
<td>MPI</td>
<td>Large-scale Plantations</td>
</tr>
<tr>
<td>Law No. 04/NA on Land 2003</td>
<td>MONRE</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Law No. 29/NA on Environmental Protection 2012</td>
<td>MONRE</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Law No. 46/NA on Enterprise 2013</td>
<td>MOIC</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Law No 47/NA on Local Administration 2003</td>
<td>G</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Decree No. 003/PO on Service fees and Charges 2012</td>
<td>PO</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Order No. 13/PM Regarding suspension of consideration and approval for new investment projects in connection to mineral ore exploration &amp; survey, rubber and eucalyptus Plantation in whole country 2013</td>
<td>MAF</td>
<td>Large-scale Plantations</td>
</tr>
<tr>
<td>Decree No. 119/PM on the Implementation of the Investment Promotion law, 2011</td>
<td>MPI</td>
<td>Large-scale Plantations</td>
</tr>
<tr>
<td>Decree No. 135/PM on State Land Lease or Concession 2009</td>
<td>MPI</td>
<td>Large-scale Plantations</td>
</tr>
<tr>
<td>Decree No. 192/PM Decree on the Compensation and Resettlement of the Development Project 2005</td>
<td>MONRE</td>
<td>Large-scale Plantations</td>
</tr>
<tr>
<td>Decree No. 88/PM on the Implementation of the Land Law 2005</td>
<td>MONRE</td>
<td>Large-scale Plantations Smallholder Plantations</td>
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<tr>
<td>Decree No. 96/PM on Industrial Tree Plantations and Environmental Protection, 2003</td>
<td>MAF</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Statute No. 02/PM on Concession Rental 2009</td>
<td>MOF</td>
<td>Large-scale Plantations</td>
</tr>
<tr>
<td>Order No. 17/PM on Strengthening the Forest Management, Protection and Coordination of Forest Management and Forestry Business, 2008</td>
<td>PM</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Decision No. 32/PM On adoption Meeting Minute for National Forest Conference on Forest management, Forest Inspection and Forest business on 25th-26th January 2012</td>
<td>MAF</td>
<td>Large-scale Plantations Smallholder Plantations</td>
</tr>
<tr>
<td>Decision No. 8056/MONRE on Endorsement and Promulgation of a List of</td>
<td>MONRE</td>
<td>Large-scale Plantations</td>
</tr>
<tr>
<td>Legal Source</td>
<td>Ministry Responsible</td>
<td>Scale/Scope of Application</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Investment Projects and Activities Requiring for Conducting Initial Environmental Examination or Environmental Impact Assessment 2013</td>
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**Harvesting Haulage and Transport**

<p>| Law No. 46/NA on Enterprise 2013                                             | MOIC                 | Large-scale Plantations Smallholder Plantations |
| Law No. 24/2012 NA on Transportation, 2012                                   | MPWT                 | Large-scale Plantations Smallholder Plantations |
| Law No. 02/NA on Land Traffic 2000                                           | MPWT                 | Large-scale Plantations Smallholder Plantations |
| Decree No. 003/PO on Service fees and Charges 2012                           | PO                   | Large-scale Plantations Smallholder Plantations |
| Decree No. 96/PM on Industrial Tree Plantations and Environmental Protection, 2003 | PMO                  | Large-scale Plantations Smallholder Plantations |
| Order No. 57/PM Managing the collection of revenue from the sale of timbers and NTFPs 2014 | PMO                  | Large-scale Plantations Smallholder Plantations |
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| Decision No. 32/PM On adoption Meeting Minute for National Forest Conference on Forest management, Forest Inspection and Forest business on 25th-26th January 2012 | PMO                  | Large-scale Plantations Smallholder Plantations |
| Decision No. 0080/MAF on procedures for importation, management and utilisation of chainsaw, 2012 | MAF                  | Large-scale Plantations Smallholder Plantations |</p>
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<td>Guideline No. 2297/MOF on Bidding Regulations for Buying Timber and Other Forest Resources from State Standing Timbers, Infrastructural Areas and Production Forest Areas at Second Landings 2004</td>
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**Timber Processing**

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<tr>
<td>Guidance No. 04170/CD for the review of Customs Declaration with reference to</td>
<td>MOF</td>
<td>All wood exporters</td>
</tr>
<tr>
<td>01470</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 6: Environmental and Social protection measures for Smallholder/farmer plantations

<table>
<thead>
<tr>
<th>Step</th>
<th>Regulation</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Allocation</td>
<td>Land Law (21)</td>
<td>3/ha degraded or barren land per labour force per family is allocated under the land use allocation program</td>
</tr>
<tr>
<td></td>
<td>Decree No 169/PM 1993(ChIV)</td>
<td>A forest management (land use) contract for tree planting is required which specifies certain conditions.</td>
</tr>
<tr>
<td></td>
<td>Directive No 234/MAF 1995</td>
<td>Tree planting should be avoided on land appropriate for farming, paddy, and grassland for animal husbandry.</td>
</tr>
<tr>
<td></td>
<td>Luang Prabang Manual on implementation Decree No 186/PM 1994</td>
<td>Makes some general rules about the use of ‘hills’ Land with natural forest must be preserved. 50m preservation zone on river banks and roads - but flat land can be used for rice or fruit trees and sloped land may continue to be used for tree plantations. 30m preservation zone on streams and footpaths. 10m preservation zone on water canals. 500m preservation zone around water reservoirs.</td>
</tr>
<tr>
<td>Site Preparation</td>
<td>Decree No 186/PM 1994 (contract)</td>
<td><strong>Slope</strong>: commercial value trees can be planted on slope 12-36 degrees. (0-12 degrees for agriculture) &gt;36 degrees protected forest and ‘crops with preservation)</td>
</tr>
<tr>
<td></td>
<td>Instruction No 0822/AF 1996</td>
<td><strong>Slope</strong>: “agroforestry” can be undertaken on slope from 25-45%</td>
</tr>
<tr>
<td></td>
<td>Directive No 0234/MAF 1995</td>
<td><strong>Soil</strong>: on flat land soil can be tilled before planting, on slope land may not be tilled and existing trees should be retained. Spacing: the Directive species the tree spacing for different species</td>
</tr>
<tr>
<td></td>
<td>Regulation No 0196/AF 2000</td>
<td>Defines ‘degraded forestland’ and ‘bare forestland’</td>
</tr>
<tr>
<td></td>
<td>Regulation 196/MAF 2000</td>
<td>&gt;5ha technical and socio-economic assessment and plantation management plan is required &lt;5 ha no assessment required unless multiple adjoining areas totalling &gt; 5a are being planted Penalties: Inappropriate site clearing, site preparation or use of chemicals or non-compliance with environmental protection measures is subject to educational measures.</td>
</tr>
<tr>
<td>Planting</td>
<td>Regulation No 0196/AF 2000</td>
<td>Defines planting configurations. Specifies Agroforestry should be used in areas where there is land or rice shortage or steep slopes. Imported seeds must have phytosanitary certificates.</td>
</tr>
<tr>
<td>Harvesting and Haulage</td>
<td>Regulation 196/MAF 2000</td>
<td>Logging and transport must be in accordance with plantation management plan Logging permit is required</td>
</tr>
<tr>
<td>Treaty or Agreement</td>
<td>Relevance</td>
<td></td>
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<td>-----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Mekong River Commission Agreement on the Cooperation for the Sustainable Development of the Basin ratified in 1995</td>
<td>Sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin</td>
<td></td>
</tr>
<tr>
<td>United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, ratified in 1995</td>
<td>Land and soil productivity in arid, semi-arid and dry sub-humid areas</td>
<td></td>
</tr>
<tr>
<td>ASEAN Agreement on the Conservation of Nature and Natural Resources, ratified in 1985</td>
<td>Conservation and wise use of wetlands. Controls for development and around Ramsar wetlands</td>
<td></td>
</tr>
<tr>
<td>Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, ratified in 2010</td>
<td>Conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources</td>
<td></td>
</tr>
<tr>
<td>United Nations Convention on Biological Diversity, ratified in 1996</td>
<td>Protection and management of world heritage sites</td>
<td></td>
</tr>
<tr>
<td>World Heritage Convention Concerning the Protection of the World Cultural and Natural Heritage, ratified in 1987</td>
<td>Protection and management of world heritage sites</td>
<td></td>
</tr>
</tbody>
</table>
| The United Nations Framework Convention on Climate Change (UNFCCC), ratified in 1995 | Adaptation  
Mitigation  
Land Use, Land Use change and Forestry  
Reduced Emissions from Deforestation and Degradation |
| International Plant Protection Convention, ratified in 1995 | Plant health, protect cultivated and wild plants by preventing the introduction and spread of pests. |
| Plant Protection Agreement for the Asian and Pacific Region, 1956 | Phytosanitary measures |
| Membership of the World Trade Organisation, 2013 | Sanitary and phytosanitary (SPS) measures  
The transport of hazardous waste. |
<p>| Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2000 | Safe handling, transport and use of living modified organisms (LMOs) resulting from modern |</p>
<table>
<thead>
<tr>
<th>Treaty or Agreement</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vienna Convention for the Protection of the Ozone Layer, year of accession 1988.</td>
<td>Use and destruction of ozone depleting substances Minimise effects on biological diversity and risks to human health</td>
</tr>
<tr>
<td>Basel Convention on the Control of Transboundary Movements of the Hazardous Wastes and Their Disposal, ratified in 2010</td>
<td>Environmentally sound waste management Limit/control transboundary movement of hazardous waste</td>
</tr>
<tr>
<td>Stockholm Convention on Persistent Organic Pollutants. Stockholm, ratified in 2006</td>
<td>Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced Persistent Organic Pollutants</td>
</tr>
<tr>
<td>Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC), 1998</td>
<td>Environmentally sound use of certain hazardous chemicals Trade of certain hazardous chemicals Safe use of certain hazardous chemicals Appropriate labelling of certain hazardous chemicals</td>
</tr>
<tr>
<td>Globally Harmonized System of Classification and Labelling of Chemicals</td>
<td>Classification and labelling of hazardous chemicals Safe use, transport and disposal of hazardous chemicals</td>
</tr>
<tr>
<td>International Labor Organisations conventions</td>
<td>Women and young persons working at night Forced or compulsory labour Minimum wage Child labour Fair remuneration Discrimination</td>
</tr>
</tbody>
</table>