In recent years, the Government of Lao PDR (GoL) has allowed for substantial investment in plantations. The GoL has granted domestic and foreign companies land concessions on which to grow cash crops like rubber and sugar with the hope of boosting the Lao economy and furthering the socio-economic development of the country.

However, the benefits of plantations, such as increased investment flows, their contribution to rural development and potential to replace shifting cultivation are increasingly being weighed against negative environmental and social impacts.

The large amount of land required for these mono-culture industrial plantations may pose a threat to one of the country’s greatest natural resources—its forests, which are being cleared at an alarming rate. In addition, plantations can replace fields used by local people for food production, raising concerns about food security. Local people may also be affected by factors like outsiders that may be brought in due to a shortage of workers locally, dependence on a cash economy and child labor, to name a few.

This issues brief includes options that decision-makers may consider in order to ensure that the negative impacts of investment in plantations do not outweigh the positive. It includes cross-sectoral actions as well as specific options for the key sectors such as agriculture and forestry, land policy, planning and management, public expenditure and financing.
1. Investments in the Lao plantation sector

The agricultural industry, including plantations, is a key part of the GoL’s socio-economic development strategies. Agriculture and agroforestry is one of the GoL’s four priority sectors for investment and industrialization (the others being energy, mining and tourism) and the Lao national forest strategy envisages 500,000 hectares (ha) of land to become commercial tree plantations by 2020.

Increased regional and global demand for plantation products and agricultural commodities, as well as better market access and transportation through regional integration, is driving increased investment in plantations in Lao PDR. Accumulated foreign direct investment in the Lao plantation sector has increased substantially in recent years, from US$18.6 million in 2001 to almost US$665 million in 2007, representing 11% of total foreign investment in the period (2001-2007).

The Ministry of Industry and Commerce also notes that the value of all agricultural exports (including a small proportion of plantation products) has risen from US$97.7 million in 2003 to US$145.7 million in 2006 (a rate of about 16% per year). According to data from a number of sources, a rapid increase in the number of agroforestry projects in Lao PDR in recent years has seen 21 agroforestry projects worth US$17.3 million, approved in 2005, grow to 39 projects worth US$458.5 million in 2006 and to 123 projects in 2007. Lao PDR’s most important agriculture export products are rice, maize, sugar cane, acacia and eucalyptus trees and coffee. There is a lack of up-to-date data publicly available, but the estimated shares of major large-scale plantation crops in 2007 are shown in Figure 1.

2. Investment models

There are two main approaches to investments in plantations in Lao PDR: large-scale concessions to companies; and smallholder plantations, including those organized through contract farming. A mixed model, involving a core company concession plus smallholder contract farming around it has not been practiced widely. Each model brings with it a different combination of advantages and disadvantages.

Land concessions: Under this model, a company is allocated land which it leases for a set period of time, then hires labour to establish, operate and harvest from the plantation. The company can maintain a high level of autonomy in how the plantation is set up and managed and owns the entire product. Although allowing large-scale, efficient and more consistent production, concession-style plantations can also cause villages to lose access to agricultural, forest and other land. The return on labor for working as laborers cannot compete with farming. The Asian Development Bank (ADB) has also noted that the primary causes of human trafficking in Cambodia and Lao PDR is the loss of land. Further, large-scale plantation concessions are often monocultures and may rely on inputs of chemical fertilizer and pesticides which can contaminate watersheds, forests and soil, harming human and environmental health. The concession model for plantations is dominant in southern Lao PDR, with existing concessions for rubber, sugarcane, eucalyptus, coffee and other crops. Although the northern provinces favor contract

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3 Voladet, 2009.
5 Estimates from data provided by MPI (2007) and discussions with line sectors. In Voladet, 2009.
farming\textsuperscript{7}, concession style plantations still exist, such as “demonstration gardens”, military-operated plantations along the borders and plots obtained as compensation for failed contract farming schemes or for infrastructure development\textsuperscript{8}. In May 2007, the Lao Prime Minister suspended any concessions over 100 ha for industrial plantations, perennial plants and mining, until impacts could be fully addressed and a land management strategy put in place.\textsuperscript{9} A national land management strategy has yet to be implemented and the moratorium is technically still in place. In addition, according to the Forestry Law, concessions can only be granted on degraded lands; those between 100 and 1000 ha must be approved at the national level and any over 1000 ha must be approved by the National Assembly. However, land concessions for plantations continue to be established.

Smallholder farming: Smallholder plantations refer to individual farmers using their own capital to convert their land to plantations or to integrate a plantation into their farming system. They are responsible for all activities, from procuring seedlings, to planting and harvesting, to selling their products and thus are entitled to all the profits. Although this allows farmers to retain their land and to maintain greater autonomy, it is risky. Farmers are affected by price volatility and need access to credit, technical extension, market information and linkages to make their investments successful. Smallholder production dominates in plantations in northern Lao PDR, as well as in rice and vegetable production throughout the country. For example, 80% of Luang Namtha’s rubber production is in smallholdings.\textsuperscript{10}. The farmer association model of smallholder production is not yet common in Lao PDR; two examples are coffee plantations in southern Lao PDR and some rubber growing villages in Luang Namtha.

Contract farming: This model provides a way for investors to access land and labour without being issued a concession. The “2+3” model is the most heavily promoted in Lao PDR, as it is seen as a better way to promote rural development. Under this system, the investor is to reach an agreement with farmers, where the company provides capital, technology and a market for the final product, and farmers provide land and labour. Profits are split, generally with 70% to go to the farmer and 30% to the investor (in practice, many farmers receive less)\textsuperscript{11}. Although “2+3” is preferred by the GoL, it often slips into a “1+4” system where farmers provide only land and receive a smaller share of profits. Despite the promotion of contract farming and its potential to provide greater opportunities for farmers, the model entails risks. For example, both farmers and companies express concerns regarding sufficiency of labour, particularly for labour intensive crops like rubber. Information and support for farmers from both the government and companies is also insufficient and both farmers and investors worry about the quality of the final product, as well as the chances of one side reneging on the contract. In addition, for crops that take years to mature, food security of farmers is a major concern.

Mixed plantation schemes: In this model, a company is allocated a certain amount of land for establishing and operating a plantation and uses a contract farming or smallholder farming system to supplement the concession. This allows the investor to maintain control over its main plantation, which can also be used as a demonstration for farmers. This model benefits investors in that there is greater security for investment if they can retain control over a core area. It also allows farmers to retain land and work with the company if they choose. This model is not common in Lao PDR although examples exist.

3. Tools for more sustainable, productive and equitable plantations

As the discussion above shows, the development of industrial plantations can have both positive and
negative economic, social and environmental outcomes. Different investment models also bring a range of different benefits and risks. Box 1 also outlines some risks involved in contracts for investments in this sector. Plantations must be carefully designed, managed and monitored to avoid these risks; there are a number of tools and approaches that can help in this regard:

It is essential that all plantation projects, like any other investment or development project, carry out comprehensive *environmental and social impact assessments (ESIA)* and, if approved, put in place an *environmental and social management plan (ESMP)*. In a study on rubber plantations in parts of northern and southern Lao PDR in 2008, very little evidence of plantation projects adhering to this process was found\(^{12}\).

**Agroforestry and integrated farming systems**, which involve growing industrial tree and agricultural crops together with other crops, offer a number of benefits: a degree of insurance against price volatility; better food security for farmers; better maintenance of agrobiodiversity; and better provision of ecosystem services, such as soil protection. For example, in 2001 multinational tire company Michelin converted its old large-scale rubber plantation in Brazil to a group of 12 locally-managed, medium-sized plantations. The company also invested in diversifying the plantations with banana and cocoa, and setting up a number of attached smallholder plantations. The decision to modify production paid off, with the creation of 150 new jobs and an 11% increase in productivity\(^{13}\).

**Support**, such as extension services, information sharing and subsidies, are important in ensuring the economic success of smallholder plantations. Support can also be tailored towards more sustainable approaches, such as encouraging agroforestry, rewarding smallholders/contract farmers over large-scale monoculture plantations, and promoting organic agriculture. For example, effective support and extension for smallholders has played an important role in the success of the Thai smallholder rubber sector.

**Lending standards** are another way to direct investment flows toward more sustainable plantation projects. A number of financial institutions now screen projects applying for credit according to their economic, social and environmental sustainability. In addition to the commitments of large institutions like the World Bank and the International Finance Corporation, smaller private banks like HSBC and ANZ now have policies on lending in the forest sector.

**Codes of practice, standards and certification schemes** that include technical, economic, environmental and social guidelines can also be used to develop more sustainable plantations. These include the Forest Stewardship Council’s (FSC) Certification, which can apply to natural and planted forests, organic agriculture certification, as well as guidelines such as the FAO’s Voluntary Guidelines

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Box 1: Risks in international contracts

There are a number of risks for governments seeking to attract and negotiate large-scale plantation concessions with foreign investors:

- Governments are increasingly involved in deals for agricultural and plantation land – recent reports of interest from Middle Eastern and other countries in Mekong agricultural land supports this. Government’s involvement includes offering incentives for investments, negotiating deals, as well as governments abroad backing private sector interests. When private sector investment is backed by the government, the agreement is more likely to contain “export home only” provisions.

- “Stabilization” clauses refer to clauses in contracts between investors and host states that preclude new or changed regulatory measures affecting the project or require compensation if this occurs.

- This is often accompanied by a prohibition on imposing “performance requirements”, such as specified local employment levels, benefit sharing or other standards. Although usually allowed by domestic law, investment treaties between countries can prohibit these requirements. As a result, some of the options for improving the social, environmental and development dimensions of investments might actually be impossible to implement.


Ideas on how to manage these and other risks in negotiating and implementing international contracts can be found in the work of the International Institute for Sustainable Development (IIID) and IIED’s report on “Investment Contracts and Sustainable Development at: http://www.iied.org/pubs/pdfs/17507IIED.pdf"

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for Responsible Management of Plantations. The Lao PDR INGO Land Issues Working Group commissioned a comprehensive review of plantation codes of practice in 2009, with a view to potential application in Lao PDR (see Box 2).

4. Options for decision-makers, leading to a more sustainable, equitable and productive plantation sector

The GoL’s promotion of investment in the agricultural and forestry sectors is aimed at achieving the country’s economic growth targets, contributing to rural development and promoting reforestation. However, there is significant evidence that current investments in agricultural and tree plantations are not delivering sustainable development outcomes. There are a number of options open to government agencies, the private sector and development partners that can guide the development of more sustainable plantations:

**Addressing gaps in the policy and regulatory framework.** Although Lao PDR has a comprehensive set of investment, environmental and social laws and regulations, poor implementation and enforcement, as well as several gaps, continue to result in low quality plantation projects. Areas of concern include uncertain land tenure, lack of protection for farmers and loopholes, such as the lack of a definition of ‘degraded forest’ (which determines whether land can be used for plantations). While GoL may want to consider these improvements to policy, regulations, and their enforcement, investors can also improve their capacity to understand how laws and regulations apply to their project and their ability to comply with them.

**Stricter application and implementation of environmental and social impacts assessments and safeguard requirements.** ESIA’s are required by law for all plantation projects, but they are rarely carried out nor are subsequent agreements always enforced. Better enforcement of these requirements can offset future environmental and social mitigation costs to the government. In addition, the full implementation of requirements governing land compensation and how land is appropriated can help mitigate land conflicts and land alienation. The GoL may consider increasing awareness of ESIA requirements by disseminating guidelines and review criteria to investors. In turn, investors developing projects of all sizes should focus on truly fulfilling the ESIA mandate by conducting only quality ESIA’s.

**Box 2: Planting for the future: codes of practice for Lao plantations?**

In Lao PDR, the essential legal framework for plantation codes of practice (CoP) is theoretically in place; the country already has a comprehensive suite of forestry, environmental and social law and regulations. However, Lao PDR still lacks an effective land tenure and titling system, especially in rural areas and there is a significant lack of capacity to fully implement and enforce laws and regulation. This makes it difficult to implement a code of practice for plantations and can undermine the potential advantages for companies following a code.

Should the government and other stakeholders agree that a code of practice for plantations is feasible, the following steps are recommended:

- determine which government agency would be the sponsor and supporter of the adaptation or development process for the code;
- hold several preliminary, informal workshops, including a broad range of participants, so as to discuss and agree on a strategy and timetable;
- then initiate a more formal, multi-stakeholder roundtable process to undertake adaptation or development of the industrial plantation code of practice for Lao PDR.


**Reconsidering the promotion of large-scale concessions in order to better protect control over land and access to benefits for Lao people.** The large-scale concession model favoured for plantation development is more likely to result in non-environmentally friendly logging practices and monoculture plantations, and villagers may lose ownership and access to agricultural and forest land resources. Alternatives to large-scale concessions, such as agroforestry and smallholder options discussed above, may avoid some of these risks. However, these models also require monitoring to ensure a more equal sharing of risks and benefits between farmers and companies.

**Developing a national land use planning system.** The introduction of a land use planning system at central and local levels is a target of the National Forestry Strategy to 2020 of the GoL and increasing
efforts are directed at this task. Given the amount of land and labor required for large scale industrial plantations, a comprehensive national land use planning system and a full assessment of labor resources may help determine how land should be allocated to tree plantations, rice paddies or biofuels, for example. The promotion of communal titling of land is another option for strengthening communities’ tenure and access to land, including forests and wetlands.

**Revising land lease rates and taxes.** Lao PDR’s land lease rates are low compared to other countries, limiting revenues from land and further encouraging speculation. In addition to raising land lease rates, one option for consideration is introducing a land taxation system, where land tax per hectare increases with increasing land area ownership/leases. Very large parcels of land would therefore attract more tax, providing an incentive to companies to utilise smallholder farming over large concessions.

**Improving support for smallholders.** In comparison to its neighbours, Lao PDR lacks institutions to support the sustainable development of plantations, such as growers’ associations and specialised research institutes/programs. It is not always necessary that resource-intensive support mechanisms or institutions be established. It is possible to build on the first steps taken by the National Agriculture and Forestry Extension Service (NAFES) and the National Agriculture and Forestry Research Institute (NAFRI) to provide smallholders with technical, market and practical information about cash crops and other livelihood options. The formation of farmers associations at the local level could also be encouraged.

**Encouraging agroforestry investments.** Agroforestry projects that involve a greater diversity of crops offer a number of benefits, such as better protecting agro-biodiversity and food security. However, they also face greater challenges in attracting investment. More detailed analysis of alternative plantation models, integrated farming and other intercropping, including further study of the environmental, socio-economic, marketing and institutional factors relevant in Lao PDR, is needed. The Lao authorities may also consider linking appropriate agroforestry options to investment screening and approval.

**Promoting transparency and a secure investment climate.** Increasing the transparency of the overall investment approval processes will allow for wider participation of stakeholders and thereby improve the government’s negotiating ability with investors. Further, a precarious and unclear investment climate contributes to unsustainable practices. When investors are unsure about the long-term security of their projects, their priorities are to make quick gains and they are less motivated to invest in the sustainable development of plantations.

**Encourage competition and monitoring for sustainability.** Governments may opt to encourage competition among investors based on their adherence to sustainable practices. Article 22 of the **Investment Law** (2009), for example, suggests that the selection of investors will be through comparison of tender bids or joint assessment with relevant sectors. For established projects, businesses that perform poorly may be penalized, with the penalty channelled to rewarding those that do well. Incentives to attract plantation investments regardless of the sustainability of the project could be terminated. In addition to seeking local participation in deciding on and setting up plantation projects, local people can also be involved in the regular monitoring of existing plantations, such as determining whether investors have encroached on other land or forests, have used all the land granted to them and are correctly implementing environmental and social safeguards.

**Seek local and green markets.** Expanding local markets and access to them is an important way of supporting smallholder producers. In addition, the current dominant markets for Lao agricultural and plantation products are those which do not currently make requirements related to sustainability or pay a premium for more sustainable products. Premium, green markets are worth investigating to diversify the market for Lao products and encourage the adoption of environmental and social standards.
**What is PEI?**
The United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP) support the Poverty-Environment Initiative (PEI), a program that aims to mainstream poverty and environmental issues into national level planning and development processes. The objective of PEI in Lao PDR is to ensure that the country’s rapid economic growth generates inclusive and sustainable development. PEI supports the strengthening of institutional capacity in national development planning and private investment management, the development of guidelines for social and environmental impact assessments, and the generation of evidence-based research on the social and environmental costs of land use decisions. The project is coordinated by the Ministry of Planning and Investment with project components managed by Department of Planning, Investment Promotion Department, National Economic Research Institute and the Department of Environmental and Social Impact Assessments of the Water Resources and Environment Administration.

[www.unpei.org/programmes/country_profiles/lao-pdr.asp](http://www.unpei.org/programmes/country_profiles/lao-pdr.asp)

Contact information for PEI in Lao PDR:

This issues brief has been prepared by IUCN and LIWG under the auspices of the Poverty-Environment Initiative.

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**LIWG, the Land Issues Working Group**, is an informal group of NGO staff based in Lao PDR who are concerned about social, economic, and environmental impacts of rapidly expanding land concessions and plantations. The group aims to promote awareness and understanding of these issues by carrying out studies, sharing information and facilitating dialogue. [www.laolandissues.org](http://www.laolandissues.org)

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The views expressed in this publication are those of the authors and do not necessarily reflect the view of the Ministry of Planning and Investment of Lao PDR.