

Sustainable Development in the Plantation Industry in Laos

An Examination of the Role of the Ministry of Planning and Investment

Saykham Voladet
National Economic Research Institute

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161 Portage Avenue East, 6th Floor

Winnipeg, Manitoba Canada

R3B 0Y4

Tel: +1 (204) 958-7700

Fax: +1 (204) 958-7710

E-mail: info@iisd.ca

Web site: <http://www.iisd.org/>

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Acronyms and Abbreviations

ADB	Asian Development Bank
AFTA	ASEAN Free Trade Area
ASEAN	Association of Southeast Asian Nations
CIEM	Central Institute for Economic Management
CPMI	Committee for Promotion and Management of Investment
DIP	Draft of Investment Project
DPRA	Development Project Responsible Agency
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
FIP	Finalised Investment Project
IEE	Initial Environmental Examination
GA	Government Agency
GP	General Public
IC	Investment Company
IEE	Initial Environmental Examination
IISD	International Institute for Sustainable Development
IUCN	International Union for Conservation of Nature
Lao PDR	Lao People's Democratic Republic
LDC	least-developed country
MAF	Ministry of Agriculture and Forestry
MOIC	Ministry of Industry and Commerce
MOF	Ministry of Finance
MPI	Ministry of Planning and Investment
MRC	Mekong River Commission
NAFRI	National Agriculture and Forestry Research Institute
NERI	National Economic Research Institute
NLMA	National Land Management Authority
NPEP	National Poverty Eradication Program
NRI	National Research Institute
NTFPs	non-timber forest products
PDAF	Provincial Department for Agriculture and Forestry
PDPI	Provincial Department for Planning and Investment
PO	Project Owner
POSTE	Provincial Office for Science, Technology and Environment
STEA	Science, Technology and Environment Agency
TKN	Trade Knowledge Network
TOR	Terms of Reference
WREA	Water Resources and Environment Agency

Preface

In 2007, a *Rapid Trade and Environment Assessment* of the Lao People's Democratic Republic (Lao PDR) was conducted by the International Institute of Sustainable Development and the International Union for the Conservation of Nature (IUCN) in partnership with the Ministry of Planning and Investment (MPI) (Shaw *et al.*, 2007). This assessment stressed the importance of identifying and understanding the dynamic links between trade-led economic growth and the natural environment and the need to incorporate these links into national policy and decision-making mechanisms. A key recommendation of this study was to *enhance policy coordination and coherence on trade and environment among the relevant policy makers by assessing gaps in institutional capacities and strengthening institutional ability to meet changing priorities in the Lao PDR.*

Recently promoted to Ministry status, the Ministry of Planning and Investment is the Government's main investment decision-making body and coordinates other line agencies during the investment decision-making process. The Ministry is therefore in a unique position to ensure that decisions about the development of the economy are made with adequate consideration of environmental and social impacts. This paper examines the investment boom in the plantation sector, the current policy, regulations and decision-making mechanisms, and the increasing role the Ministry of Planning and Investment could play in facilitating investment flows into the Lao PDR to ensure the best environmental and social outcomes for the country.

Executive Summary

The Government of the Lao People's Democratic Republic (GOL) has identified the agricultural industry—which includes the plantation industry—as one of most important tools for alleviating poverty and raising standards of living. Concerns have recently been raised by the GOL and other stakeholders about the true value of some of these investments when weighed against their environmental and social impacts. In an effort to prevent the rapid loss of natural resources the GOL has recently suspended new land concessions over areas of more than 100 hectares.

The plantation industry in the Lao PDR has grown significantly in recent years. Specific information about the size, location and types of plantations and investors, however, remains limited and dispersed across various government agencies. Furthermore, information on projects approved and implemented at the provincial level is often not available at the national level. Total plantation investment data is not currently held by the Ministry of Planning and Investment (MPI). As a result, the overall scope of investment in the plantation sector is unclear which has hindered planning efforts.

The MPI is the main agency responsible for decision-making around investments in the Lao PDR. Despite its critical role throughout the entire investment decision-making process, it has so far played only a minor role in ensuring that environmental and social issues are taken into account. Currently, those issues are left to other ministries. Therefore, there are significant issues around a lack of coordination among other agencies to ensure environmental issues are taken into consideration, lack of capacity within the MPI to address environmental considerations, and limited financial resources for adequate studies and processes. Moreover, there is currently no monitoring and evaluating function within the MPI to ensure that environmental issues are a part of decision-making.

Some key recommendations include:

- The Ministry of Planning and Investment is the lead government agency responsible for managing overseas investment and needs to effectively manage a process that mainstreams environmental and social issues into the decision-making process by strengthening collaboration among relevant ministries through the formulation of an inter- and intra-agency environmental working group.
- Information on investments in the plantation sector needs to be available to decision-makers and researchers. By setting up an environmental information and data center at the Ministry of Agriculture and Forestry or the National Land Management Authority, the MPI could ensure that information related to current investments, land availability, land allocation data, background information on current companies investing in the Lao PDR, among others, is available and utilised.
- The MPI should set up an environmental monitoring and evaluation system at central and local levels in collaboration with other concerned ministries. Upward reporting from provinces to central level would be essential to this process and the central inspection team should concentrate on developing concrete measures for promoting companies with exemplary environmental protection and sustainable development practices and punishing the companies violating regulations and laws.
- Lack of human capacity and finances is a central constraint to improving decision-making around investments that include environmental and social considerations. Therefore, the MPI should work closely with the Ministry of Finance to ensure that adequate resources are allocated so that the MPI can play a central role in ensuring environmentally sound investment.

1 Introduction

1.1 Background

While possessing many natural resources such as fertile land, extensive water systems, forests and minerals, the Lao People's Democratic Republic (PDR) is categorised by the United Nations as a least-developed country (LDC). The country had an estimated GDP per capita of \$606¹ in 2006 and over 30 per cent of the population lives below the poverty line (ADB, 2005). The poverty incidence is especially high in the northern and eastern parts of the country where transportation and communication infrastructure is underdeveloped and access to markets is still difficult.

The highest priorities of the Government of the Lao PDR's (GOL) Socio-economic Development Strategy to 2020 (GOL, 2001a) are addressing poverty, improving the living standards of the population, and removing the country from the LDC list through economic growth based on the sustainable use of the country's natural resource base. To achieve its development goals, it is estimated that the Lao PDR's economy needs to grow by 7.5 per cent, or approximately \$170 million per annum (NERI, 2006). Economic growth requires increasing capital investment and the GOL is promoting investment from the Southeast Asia region and beyond through the *Law on the Promotion of Foreign Investment* (GOL, 2001d) and a mixture of incentive-based policies. The GOL's four priority investment sectors are energy, mining, agriculture/agro-forestry and tourism. In addition, one of the most important socio-economic development strategies is the Industrialisation and Modernisation Strategy for the Years 2001–2020 (GOL, 2001b), which promotes industrialisation and modernisation in all these key sectors in three stages. The first stage was from 2001 to 2005 and aimed to strengthen industry by joining the ASEAN (Association of Southeast Asian Nations) Free Trade Area (AFTA) and focusing on developing important sectors such as education and basic infrastructure in line with neighbouring countries. The second stage is from 2006 to 2010 to improve four key areas: strong governance and management, developing education, better economic and social infrastructure, and a strong macroeconomy. The third stage from 2011 to 2020 will serve to complete industrialisation and modernisation in some sectors.

The agricultural industry, which in the Lao PDR includes the plantation industry, is seen by the GOL as one of most important tools for alleviating poverty and raising standards of living. Large-scale plantations using industrial and modern production techniques are being promoted and as result, the country is attracting significant investment (see Annex 1). However, concerns have recently been raised by the GOL and other stakeholders about the true value of some of these investments when weighed against their environmental and social impacts. During National Assembly meetings in June 2007, members presented concerns over the loss of natural resources and urged the Government to improve land allocation and concession granting policies (Vientiane Times, 2007a). The Prime Minister acknowledged these concerns by issuing a notice suspending new land concessions over areas of more than 100 hectares in May 2007 following a national land management meeting in Vientiane. The meeting concluded that a vast number of concessions granted have negative impacts on the environment and local communities (Phouthonesy, 2007). There is a clear need for more research in this area to understand the current investment decision-making processes, identify areas where improvements might be made, and help inform steps being taken to ensure investment and economic development best meet the country's development targets.

1 Unless otherwise indicated, all \$ amounts are in US dollars.

1.2 Scope and methodology

Agency knowledge, capacity and coordination are critical to ensure that investment in the plantation sector meets the government's socio-economic and development goals. Responding to the current requests by the Prime Minister and National Assembly to strengthen land-use and plantation policy and governance, this paper presents an overview of the plantations sector in the Lao PDR and explores the current approaches by which environmental and social aspects of plantation investments are understood and managed by key government agencies.

This paper also examines the increasing role and responsibility of the Ministry of Planning and Investment (MPI)—the agency that makes the final decision on large plantation investments—and its ability to recognise potential negative socio-economic and environmental impacts that can result from plantation projects as well as the range of measures available to mitigate these impacts. Finally, the report provides a series of recommendations the GOL could explore to help strengthen oversight in the plantation industry and its ability to provide better development outcomes for the country. The research team used the following methodologies:

1. *Literature survey* to collect secondary data and information on the plantation sector and current mechanisms that promote and manage its growth. Between October and December 2007, the research team collected information such as statistical data on socio-economic development and investment; socio-economic development strategies and plans in the Lao PDR; and previous research publications, policies; and regulations and laws related to investment and environmental protection in the plantation industry.
2. *Key informant interviews* were conducted in November and December 2007 with experts from the Ministry of Planning and Investment, National Agriculture and Forestry Research Institute (NAFRI), Water Resources and Environment Agency (WREA), Ministry of Agriculture and Forestry (MAF) and the Ministry of Industry and Commerce (MOIC). These interviews provided useful insights into the current promotion and management of investments in the plantation sector.

The main purpose of this research assignment is to provide investment professionals and investment decisions-makers within the Ministry of Planning and Investment with basic information related to environmental and social impacts of plantation investments. This paper is viewed as a *discussion starter*, raising a number of potential areas where MPI can increase involvement and participation in the environmental decision-making process.

2 Overview of the Plantation Sector in the Lao PDR

2.1 Development of the plantation sector

The agriculture sector, including the plantation sector, is viewed as one of the key instruments of socio-economic development in the Lao PDR. According to the Industrialisation and Modernisation Strategy (GOL, 2001b) the agro-forestry sector should be industrialised and modernised.² Through this strategy,

2 The GOL's Strategic Vision for the Agricultural and Forestry Sector includes seven key themes: Participatory Planning, Lowland Transformation, Sustainable Development of Sloping Lands and Environmental Management, Stabilisation of Shifting Cultivation, Expansion of Irrigation, Human Resource Development, and An Enabling Environment for Business Development.

the GOL hopes to enhance productivity and thus, the competitiveness of the Lao economy and finally overcome poverty by 2015 and to raise the Lao PDR from the ranks of the LDCs by 2020.

2.1.1 Investment

Investment in the plantation sector has grown substantially over recent years. The statistical data provided in Table 1 shows accumulated foreign direct investment capital increased rapidly from \$18.6 million in 2001 to almost \$665 million in 2007 corresponding to 11 per cent of total foreign investment in the period. Investment in the plantation industry takes second position after investment in the energy sector (see Annex 1).

Table 1: Statistical Data on Foreign Investment in the Lao PDR from 2001-07

Years	Number of Projects	Investment Capital \$	Accumulated Investment Capital	Changing Index ³
2001	13	18,616,250	18,616,250	1.0
2002	6	13,988,000	32,604,250	1.8
2003	16	17,321,800	49,926,050	2.7
2004	19	75,704,017	125,630,067	6.7
2005	21	17,352,240	142,982,307	7.7
2006	39	458,578,711	601,561,018	32.3
2007	9	63,338,533	664,899,551	35.7
Total	123	664,899,551		

Source: Ministry of Planning and Investment, 2007

Despite this growth and importance to the overall development of the economy, specific information about plantation sector size, location and types of plantations and plantation investors is limited. What information does exist is dispersed across government agencies making it extremely difficult to find. MPI has information on 123 large-scale plantation projects currently covering a production area of over 165,794 hectares (MPI, 2007). It does not hold information on the areas of medium and small-scale plantation projects (less than \$3 million investment and production area less than 100 hectares), which have been approved at the provincial level. This means that MPI does not have investment data on total plantation investment.

There is also a lack of information concerning the types of trees planted in these production areas. Only estimated figures on the types of plantations could be sourced from the Ministry of Agriculture and Forestry. These are presented in Table 2 and show that the main plantation crops in the Lao PDR include para rubber, eucalyptus, palm tree, kathinnalong, jatropha and sugarcane. Sixty per cent of these plantation projects are located in the low land areas of central, southern and western Lao PDR. Forty per cent are located in the mountain areas in the north and east of the country (NRI, 2008).

³ The changing index number mean ratio between accumulated investment capital of any year and base year, 2001. For example, in 2001, the accumulated investment capital accounted for USD 18,616,250 while the corresponding number in 2007 was equal to USD 664,899,551. The ratio between both years is estimated to be 35.7. This means accumulated investment capital by 2007 was 35.7 times higher than the same number in 2001.

Table 2: Estimated percentage shares of large-scale plantations in the Lao PDR

Plantation Type	Estimated Planted Area/ha	Percentage
Para rubber	66,317	40
Eucalyptus	33,159	20
Palm tree	8,290	5
Kathinnalong	16,579	10
Jatropha	16,579	10
Sugar cane	16,579	10
Other	8,290	5
Total	165,794	100

Source: Estimated by NERI using data provided by MPI (2007) and discussions with Department of Planning, MAF⁴

According to MPI (2007) over 109 foreign companies have received business licenses in the plantation sector. The largest of these companies are Oji Lao Plantation Company (Japan), Daklak Rubber Company (Viet Nam), Saha Company (Viet Nam), Chiang-Mouangla Company (Joint Venture of Lao China) Grasim Company (India), Savannakhet Sugar Corp (Thailand) and Yunnan Rubber Company (China). The majority of the investors come from China, Thailand and Viet Nam (Vientiane Times, 2007b).

2.1.2 Strong demand and increasing regional economic integration

Strong global and regional demand for plantation products coupled with increasing regional economic integration is driving the growth of the plantation sector in the Lao PDR. According to the Ministry of Industry and Commerce (2007), the value of agriculture, including plantation product exports, has increased from \$97.7 million in 2003 to \$145.7 million in 2006 (see Table 3). This corresponds to an average growth rate of over 16.3 per cent per annum. The most important agriculture export products are rice, maize, sugar cane, eucalyptus trees and coffee.

Table 3: Export value of plantation products from the Lao PDR, 2003-06

Years	Value of export (\$)	Changing index
2003	97,712,104	1
2004	106,022,338	1.09
2005	110,360,277	1.13
2006	145,657,030	1.49
Total	459,751,749	

Source: Ministry of Industry and Commerce, 2007

The main markets for plantation products from the Lao PDR are Thailand, China and Viet Nam (MOIC, 2007). The Ministry of Industry and Commerce expects that the export value of agriculture, including plantation products to these key markets, will continue to increase due to rising demand, particularly for products such as rubber and bio-diesel crops. In fact, many analysts expect that rubber demand will exceed supply over the next few years (Vientiane Times, 2007c) leading to increases in the

4 Based on statistical data provided by MPI, the research team was only able to determine the total production area, i.e., 165,794 ha. During the discussion with the Department of Planning and Investment of MAF, the research team asked the agency to estimate the percentage of each species. Therefore, the percentage is not based on existing data, but on the observations and perceptions of MAF staff. The estimated plantation area for each species is based on total production area and the percentage calculated by the Department for Planning and Investment of MAF.

price of rubber and increased investment in the region. While traditional rubber producing countries such as Thailand, Indonesia and Malaysia have limited capacity to increase their plantation areas, the Lao PDR, Viet Nam and Cambodia are all viewed as important areas for investment (Vientiane Times, 2007d). Similarly, rising demand and price of petrol, energy security concerns and an overall move towards low-emission fuel sources is driving the increased demand for bio-diesel in the region. The Lao PDR is being seen by many as having strong potential for bio-diesel crops such as jatropha and palm oil (Sengmany, 2007).

Increasing regional cooperation and trade ties are also helping boost investment within the Lao plantation sector. A number of recent articles in regional newspapers have highlighted this trend. In August, the Vientiane Times (2007c) reported that high-ranking officials of the Lao PDR and Viet Nam signed an agreement in Vientiane to conduct a land allocation project for industrial tree plantations to accommodate Vietnamese investment, mainly for rubber plantations. In October, the same paper reported that the governments of the Lao PDR and Thailand agreed to encourage more Thai investment in the Lao PDR, especially in plantations and trade (Vientiane Times, 2007c). The Bangkok Post (2007) reported Chinese investment incentives for companies intending to establish para rubber plantations in Northern Lao PDR.

2.2 Potential social and environmental impacts of the plantation industry

The plantation industry has the potential to bring many social and economic benefits such as economic growth, increased per capita income, improved standards of living and poverty reduction. However, if not well managed, the industry can also generate significant negative effects on local environments, cultures and livelihoods of rural people. Therefore, to ensure the best development outcome, the Lao PDR needs strong environmental protection and sustainable development mechanisms in the plantation sector. As the agency with the main responsibility for development outcomes, the Ministry of Planning and Investment is in a good position to contribute to the strengthening of this system.

Research presented at the *National Workshop on Small Holder Rubber Plantations* in 2006 highlighted the potential negative impacts resulting from plantations including:

- *Changeloss of traditional cultures and livelihoods:* Presently, subsistent agriculture is the main economic activity and source of livelihoods for people in rural Lao PDR. Each family has a small parcel of agriculture land on which it produces rice, vegetables and fruits, mainly for its own needs. Rural people also collect forest products and hunt animals in surrounding forests and in semi forested landscapes. With industrialisation and modernisation, traditional livelihood practices will be replaced, at least in part, by modernised farming practices. While there are many potentially positive outcomes from this transition, these changes can also lead to independent farmers becoming dependent employees with increased livelihood uncertainty if traditional livelihoods are lost or no longer accessible.
- *Deforestation and loss of biodiversity important for local livelihoods:* An increase in plantation investment can lead to rapid deforestation. Deforestation has been widely recognised as being a threat to local environments, cultures and livelihoods. It threatens ecosystem services such as the provision of non-timber forest products (NTFPs), watershed quality, quality of soil and protective services. Potentially this can lead to more frequent and severe natural disasters such as droughts, floods and diseases.

- *Degradation of soil quality and productivity caused by intensive planting and misuse of chemical fertilisers and insecticides:* Using chemical fertilisers and insecticides in the plantation industry can contribute to rapid deterioration of soil quality. Concerns have been raised that under the free market economy, the use of large quantities of chemicals to enhance productivity and competitiveness is intense.
- *Increasing livelihood uncertainty:* Modernised livelihoods can bring increased uncertainty. The fortunes of people, especially employees, are at the mercy of market mechanisms over which they have no control. Returning to subsistence agricultural production is often difficult, especially if resources have been depleted.

Therefore, given the lack of effective control mechanisms, the socio-economic benefits from the plantation industry are considered short-term and unsustainable. Without consideration of the potential negative impacts of plantation investment, the Lao PDR could end up with more severe problems and difficulties in the long-term.

3 Examining the Role of the Ministry of Planning and Investment

As investment in the Lao PDR continues to grow significantly, so does its influence on the direction of the Lao economy and the country's overall development. Increased investment has the potential to be the catalyst for greater positive development, creating more jobs, increasing incomes and reducing poverty. However, if not well-managed, plantation investment also has the potential to have substantial negative impacts such as those identified above. The role of the planning and investment arm of the Government in ensuring the best socio-economic outcomes of foreign investment is becoming increasingly important—as recognised by the recent decision in 2007 to grant Ministry status to the Committee for Planning and Investment.

Despite the Government's commitment to an integrated approach to sustainable development (GOL, 1990), the protection of the environment and sustainable management of natural resources have largely been seen as the role of the government's lead agencies in this regard: the recently formed Water Resources and Environment Agency (WREA, formerly the Science, Technology and Environment Agency (STEPA)) and the Ministry of Agriculture and Forestry (MAF). However, in the context of rising investment and coupled with MPI's responsibility for making final investment decisions on all major projects in the Lao PDR, the planning and investment body's ability to make informed investment decisions based on sound social and environmental impact information is becoming increasingly important. Furthermore, its role in coordinating and channelling resources, capacity and information from other line agencies such as WREA and MAF in this process is essential.

This section explores the increasing role MPI can play in ensuring environmental protection and sustainable development through this coordination function. To this end, the section outlines the roles of the leading institutions in implementing the policy regulations concerned with environmental protection and sustainable development in the Lao PDR; provides a commentary on the current mechanisms informing investment decisions in the Lao PDR; and identifies gaps and system development needs which could be improved to better meet the socio-economic development needs of the country.

3.1 Key policy, regulatory and institutional frameworks governing the plantation sector

3.1.1 The function of the Ministry of Planning and Investment

The main function of the MPI is to coordinate the Government's line ministries in the development of their socio-economic development strategies and plans and to promote, monitor and evaluate the implementation of these strategies and plans in all sectors and at all levels of Government. Of central interest to this research, MPI is also responsible for implementing investment, promoting regulation, and for overall investment approval.

As clearly stated in the Government's *Law on the Promotion of Foreign Investment 2004* (GOL, 2004g), there are three areas in which MPI is able to ensure environmental protection and sustainable development:

Article 3 – preventing investment which causes a negative impact on the environment at present or in the long-term;

Article 13:7 – requiring investors to protect the environment; and

Article 16:3 – promoting and granting incentives to investment activities that protect the environment or biodiversity.

3.1.2 Water Resources and Environment Agency

The Water Resources and Environment Agency is the main agency taking responsibility for environmental protection and sustainable development. It is the lead implementer of the *Environment Protection Law 1999* (GOL, 1999b), which requires that an environmental study, impact assessment and management plan for any investment project, including investment projects in the plantation sector (Article 8). The WREA is therefore obligated under this law to inspect and evaluate environmental effects of all proposed projects. It is able to suggest to the concerned agencies to mitigate or even stop investment projects temporally or permanently if the project has significant negative impacts on the environment or human health.

Regulation 1770/STEA on Environmental Study and Impact Assessment 2002 (GOL 2002) outlines the process required for environmental studies and impact assessments and determines the environmental standards and categories for awarding environmental certificates allowing approval of a project. The WREA alone is allowed to give a business certificate in environmental protection and sustainable development areas and to give an environmental certificate to an investment project. The environmental certificate is an important certificate for approving an investment project (see Annex 3). Without this certificate, no investment project is legally approved in accordance with regulations and laws of the Lao PDR.

In addition, the *Environmental Protection Law 1999* (GOL, 1999b) obligates the WREA, in cooperation with line ministries and local authorities, to set up an environmental working group in each sector and each local authority. Specific environmental working groups are tasked with developing environmental regulations and standards for the sector and location in cooperation with the WREA.

3.1.3 Ministry of Agriculture and Forestry

The Ministry of Agriculture and Forestry is the main Government agency responsible for the management of the country's natural resources, including allocation, protection and management of agricultural land, forestry, watershed, conservation and protected areas. The Ministry is charged with considering investment applications and providing agricultural business certificates allowing companies to invest. Without a certificate, companies are not allowed to conduct business activities in the agriculture sector. The certificate has a duration of one year and is renewable. In cases of violation of regulations and laws, the MAF can refuse to extend the certificate. If a certificate is not renewed, a company has no right to invest in the agriculture sector and must stop its investment project. Therefore, the certificate serves as an important regulatory tool and gives the MAF the power they need to ensure companies abide by regulations and laws related to environmental protection and sustainable development.

The MAF has a coordination network at provincial, district and village administration levels. There is a department or office for agriculture and forestry at each provincial and district administration unit. While the MAF focuses on processing, approving, managing and controlling large-scale plantation projects in cooperation with concerned agencies at the same level, the local department or office for agriculture and forestry is responsible for small- and medium-sized projects with investment capital of less than \$3 million and production areas of less than 100 hectares.

The MAF also participates actively in processing and approving plantation projects in cooperation with the MPI and other agencies and is mainly responsible for environmental inspection and evaluation of plantation projects. In addition, the MAF drafts specific environmental protection and sustainable development regulations and laws for the plantation sector. It is the main agency responsible for implementing the *Forestry Law* (GOL, 1996a), the *Water and Water Resource Management Law* (GOL, 1996b), and the *Agricultural Law* (GOL 1998).

The *Forestry Law* prohibits the clearing of “primary forest” and “secondary forest” (Article 13)⁵ for agricultural production, especially for large-scale production. Consequently, plantations, especially large-scale, are only allowed on “deteriorated forest areas”⁶ and “non-forest areas.” The *Forestry Law* and the *Water and Water Resource Management Law* prohibit clearing watershed areas for plantation purposes (Articles 14 & 31). According to the law, all watershed areas should be protected.

The *Agricultural Law* complements the other two laws by requiring that plantation projects are only allocated to “deteriorated forest” and “non-forest areas.” In addition, the Agriculture Law promotes the use of environmentally friendly techniques and technologies, including bio-fertilisers and bio-insecticides (GOL 1998, Article 14)⁷. The Law limits and prohibits using techniques and technologies such as chemical fertilisers and insecticides that have negative impacts on the environment including soil

5 Article 13: An individual or organisation is prohibited to use natural forest or forest which has the potential to become natural forest by itself.

6 “Deteriorated forest” is understood as forest used many times during the past. The forest is already deteriorated and not able to develop to become natural forested areas by itself.

7 This corresponds to Article 14 in the translated English version. The version published by JICA lacks Article 5 and 10 in English.

quality, water quality, biodiversity and human health.⁸ *Regulation Number 1503/MAF 2000 on Management of Fertiliser* and *Regulation Number 0886/MAF 2000 on the Use of Insecticide* prohibit the use of products, which have significant negative impacts on the environment or human health. They determinate quality standards and list chemical fertilisers and insecticides, which are allowed to be produced, imported and used within the country.⁹

3.1.4 National Land Management Authority

The National Land Management Authority (NLMA) was established in 2007. The NLMA has the status of a ministry and is attached directly to the Prime Minister's Office. They have authority to draft regulations and laws on land management and, in cooperation with concerned agencies, to investigate, register and develop land use management plans and strategies. The NLMA is also mandated, in cooperation with concerned agencies, to issue land use certificates and is obligated to monitor, control and evaluate land use within the country.

The Authority has a coordination network at provincial and district levels. However, due to its recent establishment, NLMA personnel have limited experience and technical capacity. Currently, other agencies retain the main responsibility for land allocation and concessions. In the case of allocations and concession land for agriculture, the MAF retains the main responsibility.

3.1.5 Insights into the implementation of responsibilities

Interviews during this research revealed a number of challenges currently facing these government agencies.

While the MPI has a clear mandate to ensure that investments meet environmental requirements, it does not have the capacity to meet its obligations. For example, MPI does not have an environmental working group in accordance with the *Environmental Protection Law*, nor does it have concrete environmental standards or criteria for encouraging or approving investment projects on their environmental merits. In the environmental decision-making process, MPI is dependent on other agencies such as the WREA and the MAF, which also have their own internal limitations.¹⁰

The WREA's key challenge is human resources capacity, which is largely attributed to budgetary constraints. The WREA has a limited number of experienced personnel, particularly those with appropriate qualifications in the environmental assessment area. The personnel deficit is particularly acute at provincial levels where as few as one or two officers with limited qualifications take responsible for this function. Due to limited personnel capacity and financial support, the agency is not yet able to expand its coordination network into each ministry and department and into each district in accordance with the *Environmental*

8 Article 29: Using fertilisers: The use of all types of fertiliser must be done properly and strictly according to rules relating to the directions for use of the fertiliser, such as using fertilisers in accordance to their purpose, type and volume to [achieve] efficient use of [such] fertilisers, [and] ensuring the fertilisers cause no danger to the lives or the health of people or animals. The Ministry of Agriculture and Forestry issues rules regarding the use of fertilisers and determines the types of fertilisers that are seriously dangerous, the use of which is prohibited. In addition [the Ministry] must assist in training and encouraging farmers to use organic fertilisers and properly use fertilisers according to the methods [and] technical standards and according to seasons. Article 64 (66 in the English version): Clearing, preparing and using land, activities when building irrigation, the use of water and fertiliser [,] and the storage of insecticides shall minimise any adverse impacts on people, animals, soil, water, forest and air.

9 GOL Regulation Number 1503/MAF: Articles 4, 6, 8 and 9 and GOL Regulation Number 0886/MAF: Articles 10, 11 and 12.

10 See Annex 6 for the overall investment approval process and Annex 9 for the proposed process of environmental assessment in Lao PDR.

Protection Law. While the WREA is represented in each provincial administration and in some ministries (such as the MAF), the Ministry of Public Transportation, the Ministry of Industry and Commerce and the Ministry of Energy and Mining, and the MPI, are yet to house an environmental working group cooperating horizontally with the WREA. The lack of a coordination network is constraining the integration of environmental protection and sustainable development into specific development plans.

The MAF is obligated to zone, manage agriculture land in cooperation with NLMA and other agencies, and protect forest areas. However, due to limited technical capacity and financial support, forestry allocation is only slowly moving forward. With the exception of the 20 National Protected Areas covering a total area of 5.4 million hectares, the MAF is not yet able to properly zone, manage and protect a number of forest areas, which should be protected in accordance with the *Forestry Law*. One reason for this is the limited use of zoning information that has already been created.

3.2 Environmental considerations in the approval of plantation investments

Given the current challenges faced by these Government agencies, there is a clear need to review the environmental considerations into the investment approval process (see Annex 2) and analyse how these actors are working together throughout the environmental decision-making process. Key to this analysis is the role of the MPI as the final investment decision-making body and its responsibility to ensure that its decisions are based on sound information.

3.2.1 Approval of investigation projects

Articles 13.7 and 16.3 of the *Law on the Promotion of Foreign Investment* requires investors to protect the environment and contains provisions for the promotion and granting of incentives to investment activities that protect the environment or biodiversity. While the promotion of these projects is the role of the MPI, it is not clear how the Ministry currently carries out this duty.

The *Investigation Project Application* (see Annex 6) is the most likely point at which the MPI can make an initial decision on the environmental merits of an investment proposal and stress general environmental obligations of investments.

After gaining initial approval from the MAF in the form of a business license, all companies that wish to conduct a plantation project within the Lao PDR are required to complete this form which requires preliminary information on the company, investment area project description, investment capital and raw materials needed. After completing the application form, a company must submit it to the MPI or to a provincial department for planning and investment, depending on the size and investment capital of the plantation project. Plantation projects with an investment capital of less than \$3 million or production areas of less than 100 hectares are able to process their applications at the provincial department for planning and investment. Larger plantation projects have to submit their investment proposals directly to the MPI.

The MPI will copy and circulate the application to other agencies including the MAF and the WREA. On a weekly basis, the MPI organises a meeting of the Committee for Promotion and Management of Investment (CPMI) to discuss current investment proposals. The Minister or Vice Minister of the MPI is the chairperson of the meeting. The main purpose of the meeting is to discuss and decide whether the investigation project application should be passed on to a government meeting or not. In this process,

the MPI is coordinator, chair and final decision-maker. Other ministries including the MAF and the WREA are participants in the process. They are asked to provide comments and information related to the investigation project. Their comments and information may influence and assist the MPI's decision.

According to the MPI, in this process, the environmental impacts from the project are considered, but do not carry a great deal of weight because the consideration process occurs before any detailed environmental impact assessment takes place.

However, based on the environmental credentials of the company, their past performance and the plantation model they want to implement, the CPMI meeting is able to speculate on environmental impacts to some degree. If the company does not have sufficient environmental credentials, for example, the company has a negative historical background related to environmental protection and sustainable development within the Lao PDR or another country, the CPMI meeting is an opportunity to stop the project or require the company to consider other plantation projects or models.

If the MPI finds the project acceptable, the Ministry will approve the project and pass the project document to the Government Secretary. The Secretary will circulate the conclusion and project documents to government members, e.g., Ministers. At the Regular Monthly Government Meeting, the Minister or Vice Minister of the MPI will suggest that the government discuss and approve the investigation project. If accepted, the government will sign an investigation contract with the company, which allows the company to investigate and study its investment area in detail and create a concrete investment proposal, including an environmental impact assessment and mitigation plan in accordance with the regulations and laws mentioned above.

3.2.2 Obtaining the environmental certificate: Environmental impact assessment requirements

Under Article 3 of the Government's *Law on the Promotion of Foreign Investment*, the MPI and other lead agencies have a responsibility to prevent investment which causes a negative impact on the environment.¹¹ The environmental certificate issued by the WREA is the main tool for ensuring that this responsibility is met. Under the Environmental Protection Law every investment project requires an environmental certificate to proceed. The WREA is the coordinator and chair of the Development Project Responsible Agency (DPRA). In the case of plantation projects, the DPRA must include the MPI, the MAF, the WREA, the Provincial Department for Agriculture and Forestry, the Provincial Department for Planning and Investment, the Provincial Office for Science, Technology and Environment, the Provincial Authorities, the District Office for Agriculture and Forestry, the District Office for Planning and Investment, the District Office for Science, Technology and Environment (if any), the District Authorities and the Village Authorities.

However, the potential role of the MPI as a member of the DPRA and key participant in this process should not be underestimated. At every stage of the process, the MPI has the opportunity to provide comments and guide the decision-making process. This participation is important because ultimately the MPI is the final decision-maker in the investment approval process and carries the main responsibility for the positive and negative outcomes of these investments.

¹¹ Article 3: Foreign investors may invest in all business sectors in Lao PDR, except in business activities which are detrimental to national security or cause a negative impact on the environment, or are detrimental to health or national tradition [...]

The screening process

According to the Regulation, there are five types of environment certificates including:

1. Environmental impact study exception certificate
2. IEE (Initial Environmental Examination) certificate without conditions
3. IEE certificate with condition
4. EIA (Environmental Impact Assessment) certificate without condition
5. EIA certificate with condition

To obtain any one of these certificates, the company/project owner is required to submit an initial project description to the WREA. This must include preliminary information about the scope of the project, its anticipated positive and negative environmental and social impacts, and any mitigation measures that will be implemented during project construction, operation and closure. The WREA then circulates the project description to relevant government agencies at central and local levels (the DPRA).

Once submitted, the company/project owner is required to invite representatives from the relevant line agencies to a consultation meeting. The purpose of the meeting is to provide a forum for government agencies to review the investment project and to set up a project review team for completing the environmental screening requirements. Screening is an important aspect of the process and examines whether the project needs an environmental study and impact assessment or not. The screening team has to complete this analysis and submit a report to the WREA in writing within 30 days of receiving the project description and attending the consultation meeting.

Initial Environmental Examination

Based on the report from the project screening team, the WREA will decide whether further information on the environmental impacts of the project is required. At this point, the WREA will either issue an environmental study and impact assessment exception certificate or require the project owner to conduct a pre-feasibility study and to prepare an IEE report. Annex 4 provides an outline of the information required in the IEE report, including a project description, environmental description of the project area, description of potential environmental impacts, and an environmental management plan (EMP) or draft Terms of Reference (TOR) for an EIA.

After the IEE is completed, the WREA circulates it to the DPRA and the project owner is required to convene another consultation meeting to review the project. Unlike the previous screening consultation meetings, the IEE meeting is intended to be inclusive, with non-governmental actors in attendance. Based on the report and comments from the consultation meeting, the DPRA will complete an IEE record of decision. Upon receiving this report, the WREA must consider and decide whether a certificate can be issued or whether an EIA is required. If the WREA finds that the project does not have significant negative impacts on society or the environment, or the project has an adequate EMP, the Agency will issue an IEE certificate with conditions or without conditions. The WREA may place conditions on the IEE certificate if deemed necessary.

Environmental Impact Assessment

If the WREA finds that the project may have significant negative impacts on society or the environment, or the project does not have an adequate EMP, the WREA will require the project owner to conduct an EIA. In this case, the project owner must prepare the EIA report with an EMP. After completing the report, the project owner has to submit it directly to the WREA and organise a consultation meeting to review the EIA report and EMP. The concerned government agencies, authorities, organisations and individuals are also invited to the meeting and asked to provide comments. In the case of a rejection, the project owner must stop the investment project. In the case of an approval, the meeting will require the project owner to prepare a detailed engineering design and EMP and submit it to the WREA again. If the WREA finds that the engineering design and EMP is adequate, it will give the project owner an EIA certificate with or without conditions.

The role of MPI in the environment certificate process

There is a potential role for the MPI to play in the environmental study and impact assessment process to ensure that environmental issues are mainstreamed throughout the investment decision-making process. As the MPI is involved in the entire process of investment decision-making, they therefore can play a role in ensuring that environmental and social considerations are vital components within the process.

3.2.3 Approval of the plantation project

The plantation approval process is the last phase of environmental consideration and screening before implementation of a plantation project. In this process, the MPI is coordinator, chair and final decision-maker. The MAF, the WREA and other concerned agencies are participants and provide comments and information related to the plantation project. Their comments and information may be useful and influence the decision-making of MPI.

In this process, a significant amount of detailed information is required from the investment company. The company has to submit an investment proposal with an environmental study and impact assessment in accordance with the regulations and laws mentioned above. The company also has to submit their environmental management and mitigation plan accepted and certificated by the WREA.

The environmental certificate issued by the WREA is one deciding factor in the plantation project approval process. However, it does not mean that the WREA alone is responsible for environmental impacts of investment projects. The MPI is the final environmental screener. The Ministry, at this point, has the opportunity to stop any investment project if it is deemed to have significant negative impacts on society or the environment.

While the MPI relies on recommendations from the WREA and the MAF in the plantation project approval process, it has a responsibility to ensure that its representation within the environmental decision-making process is effective and helps improve the quality of information and decisions made. Currently, the Ministry does not have an environmental working group and is not yet able to participate fully in the environmental decision-making process. Setting up an environmental working group within the Ministry to coordinate horizontally with the WREA and the working group of other ministries in accordance with the *Environmental Protection Law* will enhance the capacity of the Ministry to ensure environmental protection and sustainable development.

3.2.4 Environmental monitoring and evaluation mechanisms

Ensuring the environmental merits of investment projects does not end with the decision to grant approval to the overall investment; continued monitoring and evaluation by the responsible agencies is required to ensure that investors are upholding their environmental responsibilities.

Currently, the agencies taking main responsibility for environmental monitoring in the plantation sector are the MPI, the WREA, the MAF and the NLMA at the central level. These agencies are responsible mainly for environmental monitoring and evaluating large-scale plantation projects approved by the government. At the local level, the Provincial Department for Planning and Investment (PDPI), the Provincial Office for Science, Technology and Environment (POSTE) and the Provincial Department for Agriculture and Forestry (PDAF) are responsible for small- and medium-scale plantation projects approved by the provincial authority.

However, there is not yet a systematic, strong and unified monitoring and evaluation system. Each ministry and agency controls and evaluates investment projects separately based on its own role and responsibilities. For example, the WREA monitors control and evaluates investment projects based on the *Environmental Protection Law* and general regulations related to environmental protection and sustainable development. The MAF monitors, controls and evaluates projects based on regulations and laws related to environmental protection and sustainable development in the agriculture sector according to the *Forestry Law* and the *Agriculture Law*.

As the responsible agency, the MPI monitors and evaluates investment projects based on investment contracts, including environmental protection, management and mitigation plans. A department within the Ministry, the Monitoring and Evaluating Department, is responsible for this function. However, the Department still has limited staff and capacity. No one has any specific qualifications in environmental monitoring and evaluation. The Department relies mainly on recommendations from other agencies such as the MAF and the WREA. Moreover, the concerned department still regards environmental monitoring and evaluation as the main responsibility of the MAF and the WREA.

Regulation 1770/STEA 2002 requires the investment company itself to set up a working team for monitoring and evaluating environmental impacts from the project and to submit regular reports on the project's implementation to concerned agencies. In the case of plantation projects, the company is required to submit a report to the MPI, the WREA and the MAF or to the PDPI, the POSTE and the PDAF. Regular reporting is also required by the *Investment Law* (Articles 13.11 and 13.1) as a condition for extension of the investment contract and receiving incentives from the Government such as tax breaks or acquiring more land to increase the plantation. Any investment company violating the environmental regulations can be fined, lose these incentives or be closed down. However, based on discussions with the concerned agencies, the regulation is not yet strongly enforced. Many investment companies do not regularly report on environmental impacts, thus violating the *Investment Law* and their own contracts.

Based on discussions with concerned agencies, there are also coordination issues in the monitoring and evaluating process, especially among agencies at the central and local levels. This often causes inefficient monitoring, especially of larger plantation projects approved at the central level. According to *Regulation 1770/STEA 2002*, the local inspection team is not mandated to monitor and control large-scale plantations approved at the central level. Consequently, the central inspection team is solely responsible for large-scale plantation projects. The team is based in Vientiane Municipality far from the project

location, making inspection of large-scale plantation projects difficult and costly. In addition, for concerned agencies that lack qualified and experienced personnel, knowledge of specific regulations for the plantation sector is a further limitation.

4 Conclusions and Recommendations

Investment in the plantation sector is a critical investment issue in the Lao PDR. The rapidly growing investment requires strong environmental protection and sustainable development systems to ensure long-term benefits from the industry.

As the main government body responsible for investment and development outcomes, the Ministry of Planning and Investment has a key role to play in this process and should take the following actions to strengthen environmental protection and promote sustainable development to achieve optimal development outcomes for the country.

- *Strengthen collaboration among relevant ministries to enable an effective decision-making process.* The MPI is the lead government agency responsible for managing overseas investment and needs to effectively coordinate a process that mainstreams environmental and social issues into the decision-making process. This can be done by improving coordination among other key agencies such as the WREA, the MAF, the NLMA and the Ministry of Finance (MOF).
- *Strengthen collaboration throughout the environmental decision-making process.* As the overall coordinator of the investment decision-making process, the MPI is in a strong position to drive improvements in the Environmental and Social Impact Assessment (ESIA) process. For example, through the development of the MPI's sectoral investment strategies, the Ministry has an opportunity to collaborate with the WREA and line agencies such as the MAF and the NLMA to develop sector specific guidelines for environmental study and impact assessment. These guidelines could contain specific environmental standards or categories for the plantation sector, for example, the minimum distance of a plantation from a watershed area; the maximum slope of land; or guidelines on chemical use for different types of plantations.
- *Initiate cooperation among concerned ministries and agencies to set up an environmental monitoring and evaluating system at central and local levels.* The local inspection team should be allowed to monitor and control plantation projects, including large-scale projects approved at the central level, and report regularly to the inspection team at the central level. The central inspection team should concentrate on developing concrete measures for promoting companies with exemplary environmental protection and sustainable development practices and punishing the companies violating regulations and laws.
- *Set up an environmental working group within the MPI and at the Provincial Department for Planning and Investment in accordance with the Environmental Protection Law.* Mainstream environmental and social issues into decisions on investment in the Lao PDR by forming an environmental working group that reviews and monitors environmental and social impacts of projects and programs.
- *Work closely with the Ministry of Finance to ensure adequate human and financial resources are available for improved decision-making around investments in the Lao PDR.* This should also include building capacity of MPI staff to review possible investments based on pre-determined

criteria and the Investment Law. Discussions with MPI staff revealed signs of a shift in thinking from a ‘compartmentalised’ approach to environmental decision-making to a more actively engaged, inclusive and coordinated approach. While capacity and knowledge of environmental issues is currently limited, there is a growing acknowledgement of the MPI’s role to ensure environmentally sound investment and an interest within the Ministry’s Department for Investment Promotion and Management to better understand its role and engage more effectively throughout this process.

- *Collaborate with other agencies to support research on sustainable development of the plantation sector.* In collaboration with NERI and NAFRI undertake research work providing sustainable development perspectives in the plantation sector and develop a specific strategy for the plantation sector.
- *Set up an environmental information or data center at the MAF or the NLMA to provide information and data required for consideration and approval of plantation projects.* Information should include background of current investments, land availability, land allocation data, background on current companies investing in the Lao PDR, among others.
- *Cooperate with the WREA to improve the regulations on environmental impact assessments.*

Bibliography

Asian Development Bank (2003a) *Northern Region Development Strategy, Draft of Executive Summary*. Vientiane, Lao PDR.

Asian Development Bank (2003b) *Northern Region Development Strategy, Volume II: Agriculture and Forestry Development Action Plan, Environmental Conservation*. Vientiane, Lao PDR.

Asian Development Bank (2005) *Infrastructure Development and Poverty Reduction*.

Bangkok Post 2007: *Bangkok Post*, October 13, 2007

IUCN 1996: *An Inventory of Wetlands of the Lao PDR*, Bangkok, Thailand, 1996

_____ 2000: *Fact Sheets for National Biodiversity Conservation Areas in Lao PDR*, 2000

_____ 2001: *Agriculture and Biodiversity*, Homagana, Sri Lanka, 2001

Government of Lao PDR (1990) *Constitution of Lao PDR*.

Government of Lao PDR (1996a) *Forestry Law*.

Government of Lao PDR (1996b) *Water and Water Resource Management Law*.

Government of Lao PDR (1998) *Agriculture Law*.

Government of Lao PDR (1999a) *Decree Number 89/PM on Role of Ministry of Agriculture and Forestry*.

Government of Lao PDR (1999b) *Environmental Protection Law*.

Government of Lao PDR (2000a) *Regulation Number 0886/MAF on Management of Insecticide*.

Government of Lao PDR (2000b) *Regulation Number 1503/MAF on Management of Fertilizer*.

Government of Lao PDR (2001a) *Socio-economic Development Strategy*.

Government of Lao PDR (2001b) *Industrialization and Modernization Strategy for the Years 2001–2020*.

Government of Lao PDR (2001c) *Environmental Protection Law*.

Government of Lao PDR (2001d) *Law on the Promotion and Management of Foreign Investment in Lao PDR*.

Government of Lao PDR (2001e) *Agriculture Development Plan 2001–2005*.

Government of Lao PDR (2003a) *Industry and Handicraft Development Strategy to 2020*.

Government of Lao PDR (2003b) *The National Poverty Eradication Program (NPEP)*.

____2004a: National Biodiversity Strategy to 2020 and Action Plan to 2010,

Vientiane, Lao PDR 2004

____2004b: Decree Number 301/PM on Implementation of Investment Promotion and Management Law, 2004.

____2004c: Biodiversity Country Report, Vientiane, Lao PDR, 2004

____2004d: National Strategy on Environment Education and Awareness to the year 2020 and Action Plan for the years 2006–2010, Vientiane, Lao PDR, 2004

____2004e: Laws, Decrees, Regulations, Agreements and Technical Standards in

Agricultural Sector, Vientiane, Lao PDR, 2004

____2004f: Decree Number 89/PM on Role and Function of the Ministry of Agriculture and Forestry, 2004.

____2005a: Strengthening Environmental Management Project, Vientiane, Lao PDR, 2005

____2005b: Meeting on Sustainable Agricultural Production, Vientiane, Lao PDR, 2005

____2005d: Integrated Watershed Management Approach for Sustainable Upland Development and Poverty Alleviation in Lao PDR, Vientiane, Lao PDR, 2005

_____. 2006a: Summary on Implementing Agricultural Development Plan in 2006, Vientiane, Lao PDR, 2006

Ministry of Industry and Commerce (2007) “Statistical data on import and import” (unpublished).

Ministry of Planning and Investment (2007) “Statistical data on FDI 2001–2007” (unpublished).

NAFRI 2004: Poverty reduction and shifting cultivation stabilization in the uplands of Lao PDR: Technologies, approaches and methods for improving upland livelihoods, Vientiane, Lao PDR, 2004

National Economic Research Institute (2006) *Economic Review*. Vientiane, Lao PDR.

National Research Institute (2008 draft) *Industry and Cooperation Development Strategy for Northern Region of Lao PDR*. Yunnan Province, China.

Phouthonesy, E. (2007) *Date for resuming land concessions unsure*, Vientiane Times Vientiane, Lao PDR, 6 July.

Sengmany, P. (2007) Environmental Impacts of Trade Liberalization in the Bio-diesel Sector of Lao PDR, RTEA Background Paper, IISD, Vientiane, Lao PDR.

STEA 2002: Regulation on Environment Assessment in Lao PDR, Vientiane, 2002

SIDA 2005: National Meeting on Environment and Socio-economic Development, Vientiane, Lao PDR, 2005

Vientiane Times (2007a) “NA concerned over loss of natural resources,” 20 June.

Vientiane Times (2007b) July 18, 2007

Vientiane Times (2007c) August 23, 2007

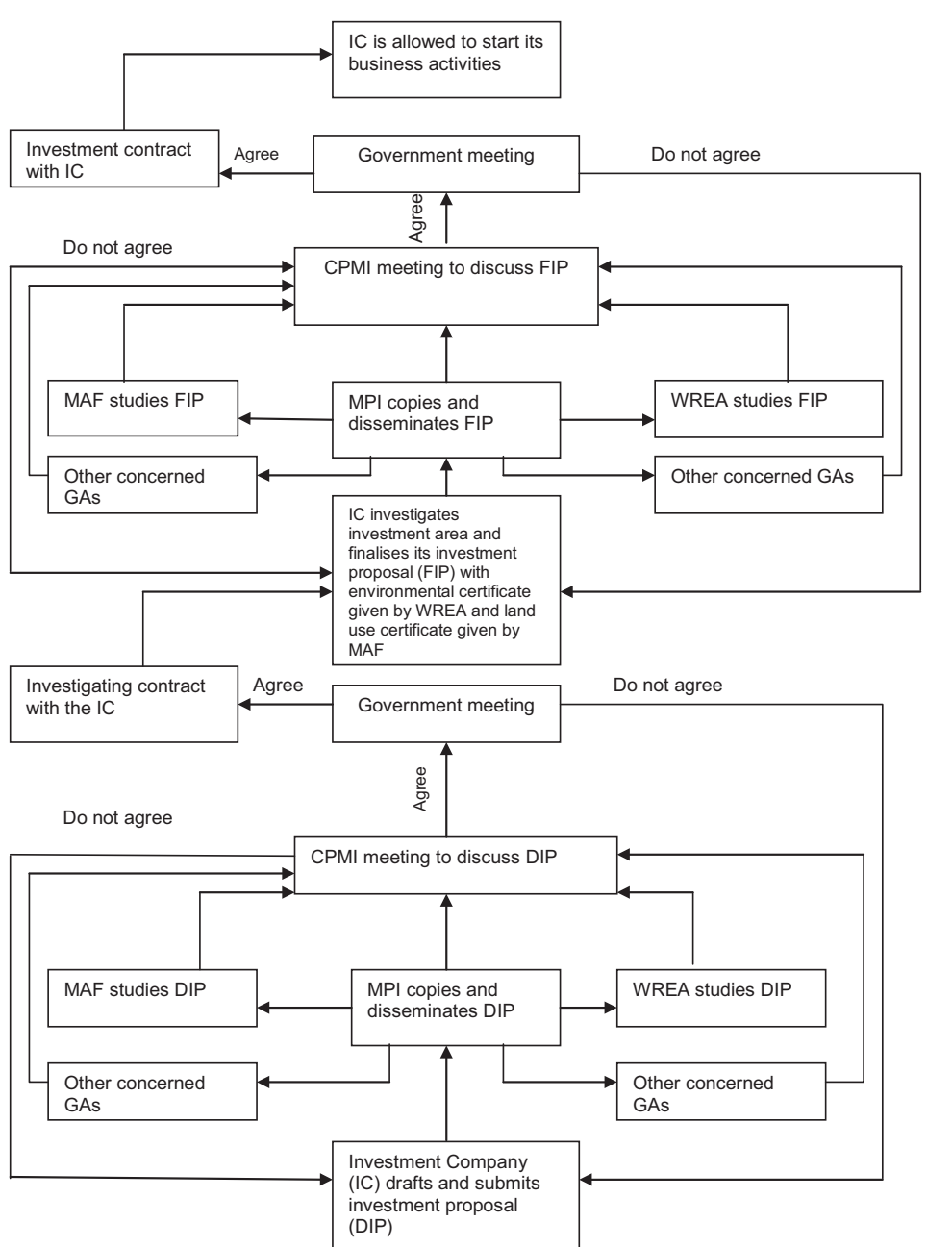
Vientiane Times (2007d) September 07, 2007

Annex 1: Foreign direct investment in Lao PDR, 2001–07 (US\$)

Year	2001	2002	2003	2004	2005	2006	2007	Total	Percentage
Electricity Generation		360,000,000	85,800,000	5,500,000	1,065,250,000	1,776,702,200	300,000,000	3,593,252,200	60.1
Agriculture	18,616,250	13,988,000	17,321,800	75,704,017	17,352,240	458,518,711	63,338,533	664,839,551	11.1
Mining	8,900,000	500,000	20,728,679	312,109,734	93,538,625	73,806,160	23,391,031	532,974,229	8.9
Industry & Handicraft	3,090,570	59,938,067	80,805,248	35,375,470	14,596,280	122,996,955	24,800,000	341,602,590	5.7
Trading		4,710,594	140,098,410	19,000,000	7,855,000	86,049,085	7,213,000	264,926,089	4.4
Construction	350,000	13,948,000	3,247,751	9,991,123	1,550,000	130,600,000		159,686,874	2.7
Services	10,451,560	16,511,100	60,297,610	17,479,069	20,865,477	12,098,651	29,282,500	166,985,967	2.8
Hotel & Restaurant	245,000	1,135,000	48,795,314	7,000,000	13,109,200	32,224,181	44,168,150	146,676,845	2.5
Telecom		12,940,000		27,000,000		0		39,940,000	0.7
Wood Industry	2,678,000	3,373,000	5,502,327	8,988,669	5,690,294	1,010,000	775,405	28,017,695	0.5
Banking	5,096,000			10,000,000	5,000,000	0		20,096,000	0.3
Garment	4,150,000	4,440,000	2,770,000	3,100,000	300,000	3,885,000	3,257,268	21,902,268	0.4
Consultancies	520,332	553,332	620,000	1,900,700	200,000	1,800,000	908,000	6,502,364	0.1
TOTAL	54,097,712	492,037,093	465,987,139	533,148,782	1,245,307,116	2,699,690,943	491,353,196.00	5,981,621,981	100

Source: Ministry of Planning and Investment, Department for Investment Promotion and Management, 2007

Annex 2: Investment approval process



Source: MPI

Annex 3: Format of EIA certificate given by the WREA



Lao People's Democratic Republic
Peace • Independent • Democracy • Unity • Prosperity

Prime Minister's Office
Science Technology and
Environment Agency

No...../STEA
Vientiane,.....

Certificate

As a result of detailed project environmental impact assessment review of the report document of.....(month/year), Project.....(Project Name), conducted by.....(the name of the company or any institution which is recruited for conduction an EIA report and detailed EMP), ofÉÉ.(month/year) pertaining to the same project, STEA certifies that to the best of its knowledge the EIA report and EMP are complete and acceptable.

Therefore, STEA issues a certificate to approve such environmental assessment and the attached EMP for the above mentioned project.

[STEA issues this certificate of approval for the project proposal with the following conditions.....]

President
Science Technology and Environment Agency

Annex 4: General contents and format of an IEE report for development projects in Lao PDR

I. Introduction

- Name and address of project owner
- Name, address and affiliation of the author of the report
- Purposes of the report
- Object of the report

II. Project description

- Type, size and location of the project
- Project activities and their timing/sequence
 - construction period
 - operation period
 - closure period
- Quantity and quality of raw material used
- Quantity and quality of waste products generated by the project
- Project cost

III. Environmental description of project area (baseline data)

- Physical
- Biological
- Economic
- Social

IV. Environmental impacts

- Impacts during project construction period
 - physical (air, water, land)
 - biological (fauna and flora)
 - economic
 - social
- Impacts during project operation period
 - physical (air, water, land)
 - biological (fauna and flora)
 - economic
 - social
- Impacts during project closure phase
 - physical (air, water, land)
 - biological (fauna and flora)
 - economic
 - social

V. Environmental management plan

If the project is not required to undertake an EIA, the EMP must contain:

- Protective or reductive measures for environmental impacts
- Compensation measures (if any)
- Institutional arrangements, timing and budgets for implementation of EMP
- An environmental monitoring program

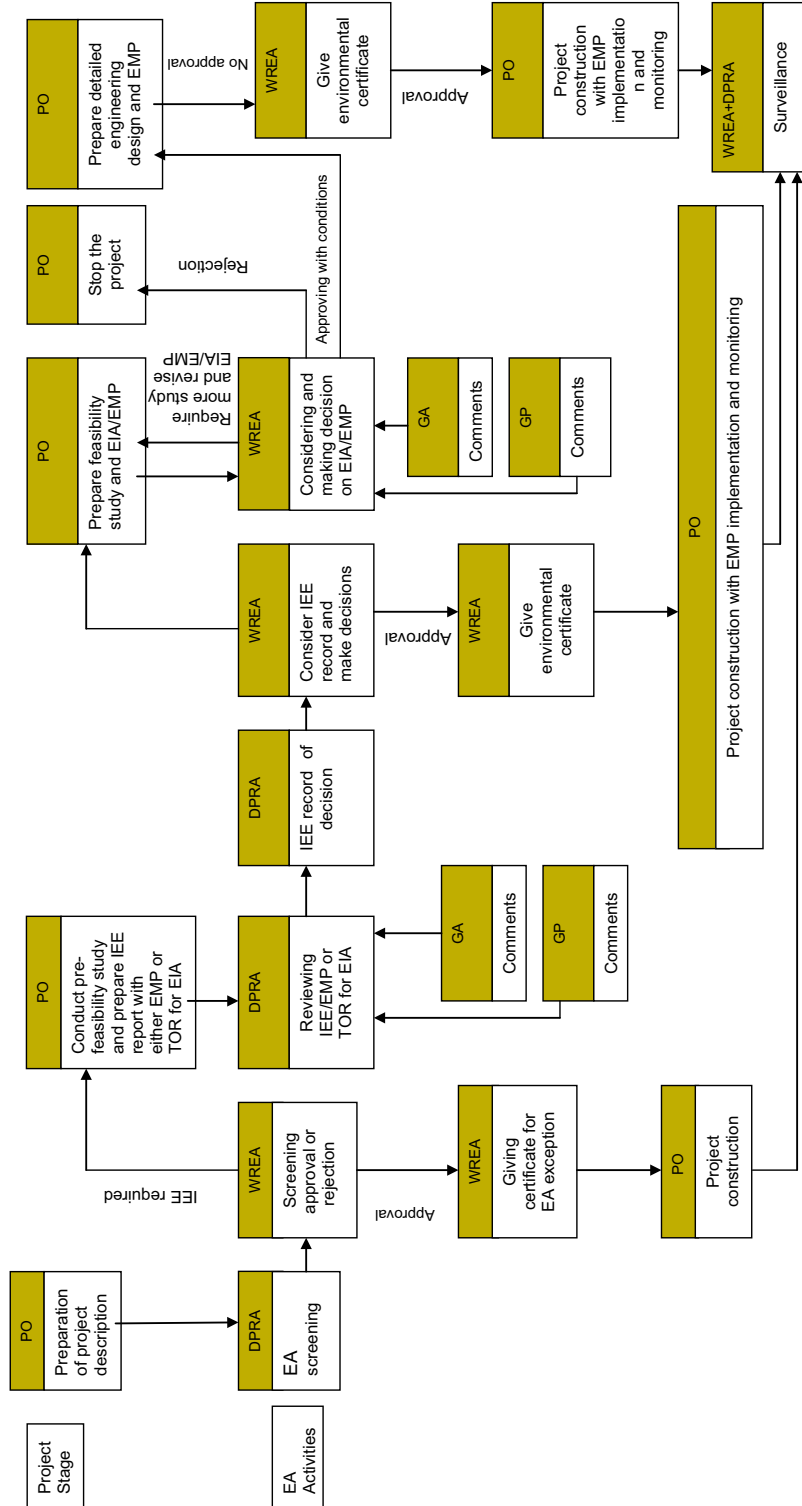
If the project is required to undertake an EIA, draft TOR on EIA must contain:

- Area of expected environmental impacts
- EIA methodology
- Persons or entities involved in undertaking an EIA

VI. Description of public involvement activities during IEE

VII. Conclusion and recommendation

Annex 5: Proposed process of environmental assessment in Lao PDR



Annex 6: Investigation application form



Lao People's Democratic Republic
Peace • Independence • Democracy • Unity • Prosperity

Investment Promotion Department
Luangprabang Road, Vientiane 01001, Lao PDR Reference No.....

On behalf of all shareholders I apply this application for your consideration for following approvals

1. Investment License
2. Enterprise License
3. Tax Registration

The required information is provided below

I. Information concerning investors/applicants

First name: Last name:
Date of birth: Place of birth:
Nationality: Occupation:
Home address:
Passport no: Date of issue:
Place of issue: Valid until:

II. Information concerning the company to be established

2.1. There are four types of enterprises; three forms of enterprise; two kinds of partnership; and two kinds of companies.

- 2.1.1. Types of enterprise
- Private enterprise
 - State enterprise
 - Joint venture enterprise
 - Cooperative enterprise

2.1.2. Form of enterprise

- Individual enterprise
- Partnership enterprise
- Company

2.1.3. Kinds of partnership

- Ordinary partnership
- Limited partnership

2.1.4. Kinds of companies

- Limited company, including sole limited company
- Public company

2.2. Total capital

- Total capital:US\$
- Working capital:US\$
- Fixed capital:.....US\$

2.3. Registered capital

- Registered capital:US\$
- Fixed assets:US\$
- Current assets:US\$

III. Information concerning the company's assets (By registered capital)

No	Assets	Unit	Amount
1	Fixed assets Plant Vehicles Equipment Others		
2	Current assets Cash Bank statement Others		
	Total		

IV. Information concerning the company to be established

A. Proposed name of the company to incorporated

In Lao language:.....

In English/French:.....

B. Business Sector

- | | |
|---|--|
| <input type="checkbox"/> Agri-business | <input type="checkbox"/> Manufacturing |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Mining |
| <input type="checkbox"/> Tourism | <input type="checkbox"/> Hotel |
| <input type="checkbox"/> Transportation | <input type="checkbox"/> Telecom |
| <input type="checkbox"/> Construction | <input type="checkbox"/> Trading |
| <input type="checkbox"/> Consultancy | <input type="checkbox"/> Service |

Descriptions of business activities

.....

.....

.....

C. The accounting principle to be applied

- Conventional Extended

D. The proposed location where the company is to be established (head office)

Province:.....	District:
Village:.....	Unit:
House no:.....	Road/Street:.....
Phone no:.....	Fax no:.....
E-mail:.....	

Branch office (If any)

Province:.....	District:
Village:.....	Unit:
House no:.....	Road/Street:.....
Phone no:.....	Fax no:.....
E-mail:.....	

Production site

Province:.....	District:
Village:.....	Unit:
House no:.....	Road/Street:.....
Phone no:.....	Fax no:.....
E-mail:.....	

Warehouse/stock if different from production site

Province:.....	District:
Village:.....	Unit:
House no:.....	Road/Street:.....
Phone no:.....	Fax no:.....
E-mail:.....	

E. Names of persons to be appeared on an investment license

Domestic investors

No	Name	Nationality	% of Equity

Foreign investors

No	Name	Nationality	% of Equity

V. Information concerning the shareholders

A. Domestic investors

No	Name	Nationality	Number of shares	Value	% of Equity

B. Foreign investors

No	Name	Nationality	Number of shares	Value	% of Equity

VI. Information concerning the management

A. Management

No	Name	Nationality	Title	Responsibility

B. Manpower Requirement

No	Category	Local	Foreigner	Total	Remark

C. Training plan for local staff

- Domestic training
- On-the-job training
- Overseas training
- Educational support
- Others

VII. Information concerning the investment plans

A. Performa Balance Sheet as of 01/01/20 (in US\$)

No	Assets	Value/ US\$	No	Liabilities and Shareholders Equity	Value/ US\$
1	Current assets		1	Current liabilities	
-	Cash		-	Short-term loan	
-	Account receivable		-	Account payable	
-	Inventories		-	Other current liabilities	
-	Other current assets		2	Long-term debt	
2	Fixed assets		3	Investors' equity	
-	Plant/Factory		-	Investor A	
-	Building		-	Investor B	
-	Vehicles		-	Investor C	
-	Equipment		-	Investor D	
-	Others		-	Investor E	
3	Intangible assets		-	Investor F	
-	Technical skills		-	Investor G	
-	Intellectual properties		-	Investor H	
1+2+3	Total assets		1+2+3	Total liabilities	

B. Estimated Income Statement (in US\$)

		Year 1	Year 2	Year 3	Year 4	Year 5	Year.....
	Export quantity						
	Unit price						
A	Export revenues						
	Local quantity sale						
	Unit price						
B	Local revenues						
1=A+B	Total revenues						
2	Cost of goods sold						
-	Raw materials						
-	Labour						
-	Overhead						
3=1-2	Gross margin						
4	Operating expense						
	Selling expenses						
	General administrative						
	Sales tax						
	Royalties						
5=3-4	Income before tax						
6=5*20%	Income tax 20%						
7=5-6	Net income						

C Expressed in percentage

No	Issues	Year 1	Year 2	Year 3	Year 4	Year 5	Year...
1	Revenues						
2	Cost of goods sold						
-	Materials						
-	Labour						
-	Overhead						
3=1-2	Gross margin						
4	Operating expenses						
	Selling expenses						
	Sales tax						
	Royalties						
5=3-4	Income before tax						
6=5*%@%	Profit tax						
7=5-6	Net income						

@: Profit tax rate (10%, 15%, 20%, 35%) depending on investment zone and activities as specified in the Investment Law.

D. Estimated Cash Flow Statement

No	Issue	As of 01/01/20...			
	<i>From operating activities</i>				
1	Cash provided by operating activities				
-	Operating Revenue				
-	Interest received				
-	Others				
2	Cash disbursed for operating				
-	Salaries				
-	Royalty				
-	Sales tax paid				
-	Interest paid				
-	Others				
3=1-2	Net cash flow from operating activities				
	<i>From investment activities</i>				
4	Net cash provided by investing activities				
-	Purchase of plant, property and equipment				
-	Proceed from disposal of plant, property and equipment				
	<i>From financing activities</i>				
5	Net cash provided by financing activities				
-	Proceed of short-term debt				
-	Payment for settle short-term debt				
-	Capital interest				
-	Dividends paid				
6=3+4+5	Net increase in cash and cash equivalent				
7	Cash and cash equivalent and beginning				
8=6+7	Cash and cash equivalent at the end				

XI. Information about implementation schedule

- Register the company within:days
- Settlement of location within:days
- Construction startup within:days
- Complete installation of machinery within:days
- Test run:.....days
- Official opening within:days
- Full operation within:days

I certify that statements made by me on this form are true, complete and correct to the best of my knowledge. Your consideration and approval will be highly appreciated.

Yours sincerely,

Date:.....

Signature and full name