

Poverty - Environment Initiative (PEI) Lao PDR



Report on Economic, Social and Environmental Costs and Benefits of Investments in Savannakhet Province



Photo: NERI

Prepared by:

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For the Poverty-Environment Initiative in Lao PDR

Final Report, January 2011

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Data used in this research is obtained from official statistics, published literature and field surveys carried out between May and December 2010, with reasonable efforts to ensure that these are factually correct.

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

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Acronyms and Abbreviations

APB:	Agricultural Promotion Bank
BCEL:	Banque Pour Le Commerce Exterior Lao
CPMI:	Committee for Promoting and Managing Investment
DB:	Development Bank
ECC:	Environmental Compliance Certificate
EIA:	Environmental Impact Assessment
FDI:	Foreign Direct Investment
GDP:	Gross Domestic Product
GoL	Government of Lao PDR
Ha	Hectares
HIV/AIDS:	Human Immunodeficiency Virus/Acquired Immune Deficiency syndrome
ICOR:	Incremental Capital Output Ratio
IEE:	Initial Environmental Examination
IUCN:	International Union for Conservation of Nature
Km	Kilometer
LAK:	Lao Kip
Lao PDR:	Lao People's Democratic Republic
LDC:	Least Development Country
MAF:	The Ministry of Agriculture and Forestry
MOU:	Memorandum of Understanding
MPI:	The Ministry of Planning and Investment
MRC:	The Mekong River Commission
NERI:	The National Economic Research Institute
NGO:	Non Government Organization
NLMA:	National Land Management Authority
NTFP:	Non Timber Forest Product
ODA:	Official Development Assistance
PA:	Participatory Assessment
PAFO:	Provincial Agriculture and Forestry Office
PB:	Policy Bank
PCPMI:	Provincial Committee for Promoting and Managing Investment
PDIC:	Provincial Department for Industry and Commerce
PDPI:	Provincial Department for Planning and Investment
PLMO:	Provincial Land Management Office
PWREO:	Provincial Water Resource and Environment Office
SOE:	State Owned Enterprise
STEA:	Science Technology and Environmental Agency
UNDP:	United Nations Development Program
USD:	United States Dollar
WREA:	Water Resources and Environmental Administration

EXECUTIVE SUMMARY

Background

The majority of Lao PDR's population of about 6 million live in rural areas and are dependent on subsistence agriculture, and the country remains amongst the poorest in the region, ranking 122 out of 169 countries on the 2010 United Nations Human Development Index.¹ The Government of Lao PDR (GoL) has set goals to eradicate poverty by 2015 and to graduate from "least-developed country" status by 2020.² Lao PDR began a shift towards a market economy with the introduction of economic liberalization in 1986. Since these reforms, the Lao economy has grown and become increasingly interlinked with the economies of its neighbours and with the region as a whole. To graduate from the LDC list by 2020, Lao PDR aims to accelerate its economic growth to at least 8% per year on average, and capitalizing on its abundant land and natural resources is a key growth strategy. Foreign direct investment (FDI) flowing into in Lao PDR is predominantly in the natural resource sector (particularly mining and hydropower), accounting for approximately 80% of all FDI in 2008.³ Investment is likely to remain a key element of Lao PDR's growth strategies and is likely to continue to focus on exploitation of the country's natural resources over the coming years.

This study

This study on the economic, social and environmental costs and benefits of investments in Savannakhet Province is one component of a project to develop investment strategies and improve investment management systems in Lao PDR, implemented under the Poverty-Environment Initiative (PEI). PEI is a joint program of the United Nations Development Program (UNDP) and the United Nations Environment Programme (UNEP). The purpose of this study is to review the status of investments, concessions, natural resources and socio-economic development indicators in Savannakhet Province, as well as the capacity of the provincial investment management system, in order to support the work of PEI in the province. This study also examines the economic, social and environmental impacts of investments in Savannakhet Province, both through an examination of provincial-level trends and two case studies. The two case studies selected in the province are: the Mitr Lao Sugarcane plantation and plant; and the Savan Vegas Hotel & Casino.

Given the important role of investment in Lao PDR's growth strategy, and in order to promote sustainable economic growth and poverty reduction, Lao PDR needs highly efficient and balanced investment promotion and management strategies and processes. As the country's

¹ United Nations Development Program. United Nations Human Development Indicators, 2010. "Lao PDR". <http://hdrstats.undp.org/en/countries/profiles/LAO.html> (accessed December 2010).

² The Ministry of Planning and Investment, *Five Year Plan VII, 2011-2015* [Draft].

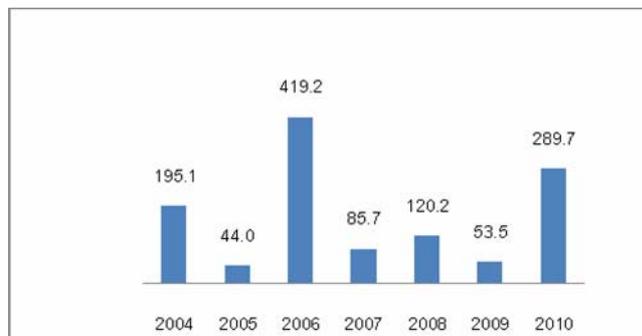
³ The World Bank. 2008. *Lao PDR Economic Monitor 2008*.

natural resources will likely be the target of much of the investment and because the country's large rural population is reliant on these resources, the social and environmental impacts of investments will be closely linked. As stated in the 2009 Law on Investment Promotion of Lao PDR (LIP 2009), investment is to serve the "continuous and sustainable economic growth of the country".

Investment in Savannakhet Province

Savannakhet Province has received significant investment flows during the last decade. Reaching a total of USD 2.123 billion over 2004-2008, investment in Savannakhet is significant nationally, accounting for 21.8% of all investment in the country during the same period. The figure below shows the increasing level of investment in the province.

*Foreign investment in Savannakhet Province, 2004-10
(USD, millions)*



Source: Savannakhet PDPI

This study shows that the natural resource sectors attract the most investment in the province, with most FDI occurring in the agriculture and forestry sector (about 66%, followed by electricity and mining). Asian countries are the most important source of investment in Savannakhet Province, with India leading, followed by China, Australia, Thailand and Vietnam.

Impacts of investment

Economically, investment contributes substantially to employment and income generation activities for people in Savannakhet Province and has helped the province achieve a higher economic development status than the national average. The case studies examined in Savannakhet Province show that investments can be important generators of government revenue through concession fees, taxes and dividends. However, a lack of transparency concerning dividend payments and how these benefits are recycled to the local level makes it difficult to accurately judge their full impact on socio-economic development. Some investment projects also contribute to infrastructure and community development, and can have indirect economic benefits, stimulating growth in local economies and helping to attract more investment.

Investments in Savannakhet Province are also associated with a number of serious negative impacts, economic, social and environmental. The limited capacity and uneven implementation of the province's investment approval and management system has been unable to prevent or

control the negative effects identified by both local officials and local communities. These include: decreased forest cover and quality, conflicts over land, declining water supplies and quality, decreased livestock production, loss of biodiversity and non-timber forest products, health problems, declining education attendance and quality, increased debt for farmers, increased criminal behavior, and other social problems such as gambling and alcohol consumption. The matrix above shows the range of on-the-ground impacts identified in the Savannakhet Province case studies, both positive and negative.

Economic Impacts	Social Impacts	Environmental & Health Impacts
<ul style="list-style-type: none"> ☺ Contribution to government revenues ☺ Lao employment ☺ Contract farming (successful) ☺ Stimulates other investment/opportunities ☺ Contribution to community development activities/infrastructure 		
<p>↑ Positive Impacts ↑</p>		
<p>Subjective</p> <ul style="list-style-type: none"> ☹ Shift from traditional livelihoods to industrial livelihoods ☹ Increased wage labor 		
<p>↓ Negative Impacts ↓</p>		
<ul style="list-style-type: none"> ☹ Increased household expenditure ☹ Contracts (unsuccessful) ☹ Increased desire for material goods 	<ul style="list-style-type: none"> ☹ Increased social problems, ☹ Increased conflicts over land ☹ Child labour/negative impacts on education ☹ Increased criminal behavior 	<ul style="list-style-type: none"> ☹ Loss of forest cover ☹ Loss of NTFPs ☹ Chemical contamination ☹ Impacts on water supplies ☹ Wastewater ☹ Noise pollution

The matrix above shows the range of on-the-ground impacts identified in the Savannakhet Province case studies, both positive and negative. This includes impacts identified in both case studies, without an attempt to weight whether one impact is more serious or more positive than another. However, it provides a picture of the overall affect of the investments on the local communities involved in the studies, by showing the distribution of impacts between the positive upper half of the table and the negative lower half of the table. For the case studies in Savannakhet Province, it is clear that the investments have resulted in a range of economic benefits; however, no social or environmental benefits were identified, while a substantial number of economic, social and environmental impacts were raised.

Recommendations from the local communities involved in the two case studies to the companies and the Government included, among others, that: the companies should provide more jobs for local people and pay better wages; the law prohibiting gambling by Lao people be enforced; companies should contribute more to community development and environmental protection; and that chemical use in plantations should be investigated and controlled.

A key finding of this study is that because of the environmental and social problems associated with certain investments in the province, the positive and negative impacts of investments may cancel each other out. Local people are unsure as to whether they truly benefit from the investments in their area or suffer more from their ill effects. In particular, the costs and benefits of investment appear to be unevenly shared between the communities and people of the province: while one group may disproportionately share in the gains brought by investment, other groups are bearing a greater burden of the costs. Importantly, investment projects are prompting a shift in traditional livelihoods but not necessarily providing a reliable alternative.

1. Introduction

1.1. Rationale and background to the project

Lao PDR, a small and relatively sparsely populated country in the Mekong region, is characterized by an abundance of natural resources. The majority of its small population of about 6 million live in rural areas and are dependent on subsistence agriculture. The country remains amongst the poorest in the region and ranks 122 out of 169 countries on the 2010 United Nations Human Development Index.⁴ The country fits into the socio-economic category of “least developed country” (LDC) with an annual per capita income of USD 880 in 2009⁵ and around 28% of the population living under the poverty line (as of 2008).⁶ The Government of Lao PDR (GoL) has set goals to eradicate poverty by 2015 and to graduate from “least-developed country” status by 2020.⁷

Lao PDR began a shift towards a market economy with the introduction of economic liberalization (called the New Economic Mechanism) in 1986. Since the introduction of these economic reforms, the Lao economy has grown and become increasingly interlinked with the economies of its neighbours and with the region as a whole. Lao PDR’s gross domestic product (GDP) grew at an average rate of 7.6% between 2006-2009 and the World Bank projecting that 2010’s rate will reach 7.8%.⁸ To graduate from the LDC list by 2020, Lao PDR’s per capita income should reach USD 1,800 per annum. To achieve this goal, the country has to accelerate its economic growth to at least 8% per year on average. The GoL now promotes Lao PDR as “land-linked” rather than “land-locked”, and capitalizing on the country’s relatively abundant land and natural resources is a key growth strategy. Natural resources are a main target for both domestic and foreign investment. Foreign direct investment (FDI) flowing into in Lao PDR is predominantly in the natural resource sector (particularly mining and hydropower), accounting for approximately 80% of all FDI in 2008.⁹

To date, the GoL promoted investment through the formulation of land concession policy, export and import facilitation, and tax breaks for certain investors (such as those investing in remote areas of the country). A number of sectors have also been identified as “priority sectors” for investment and industrialization: agriculture and agroforestry; energy; mining; and

⁴ United Nations Development Program. United Nations Human Development Indicators, 2010. “Lao PDR”. <http://hdrstats.undp.org/en/countries/profiles/LAO.html> (accessed December 2010).

⁵ Gross National Income per capita in 2009, using Atlas method. The World Bank, 2010a. <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD> (accessed December 2010).

⁶ Savannakhet Province: *Five Year Plan VII, 2011-2015* [Draft].

⁷ The Ministry of Planning and Investment, *Five Year Plan VII, 2011-2015* [Draft].

⁸ The World Bank. 2010b. *Lao Economic Monitor, May 2010*.

⁹ The World Bank. 2008. *Lao PDR Economic Monitor 2008*.

tourism).¹⁰ To reach an incremental capital-output ratio (ICOR)¹¹ of 4, Lao PDR needs to attract total investment of over USD 10 billion until 2015. According to the Ministry of Planning and Investment (MPI), about half of the investment will come from FDI and about half will come from domestic investment (both public and private) and official development assistance (ODA). Investment therefore is likely to remain a key element of Lao PDR's growth strategies and is likely to continue to focus on exploitation of the country's natural resources over the coming years.

Given the important role of investment in Lao PDR's growth strategy, and in order to promote sustainable economic growth and poverty reduction, Lao PDR needs highly efficient and balanced investment promotion and management strategies and processes. As many investors will attest, the application process in Lao PDR for anyone wishing to do business poses a challenge. Though the investment climate is slowly improving, Lao PDR does not rate very highly in indices of transparency and ease of doing business, particularly in areas outside of the capital, Vientiane. For the year 2010, Lao PDR rated 154 out of 178 countries in Transparency International's "Corruption Perception Index"¹² and it ranked 171 out of 183 countries in the World Bank Group's "Ease of Doing Business Index" in 2010.¹³ Further, Lao PDR needs not only a highly effective investment promotion strategy, but also an investment management system that ensures that investments contribute to sustainable development. Because the country's natural resources will likely be the target of much of the investment and because the country's large rural population is reliant on these resources, the social and environmental impacts of investments will be closely linked. It is therefore important that investment projects minimize possible negative social and environmental impacts. As stated in the 2009 Law on Investment Promotion of Lao PDR (LIP 2009), investment is to serve the "continuous and sustainable economic growth of the country".

This study on the economic, social and environmental costs and benefits of investments in Savannakhet Province is one component of a project to develop investment strategies and improve investment management systems nationally and in key provinces in Lao PDR, implemented under the Poverty-Environment Initiative (PEI). PEI is a joint program of the United Nations Development Program (UNDP) and the United Nations Environment Programme (UNEP), and was launched in Lao PDR in 2009. PEI in Lao PDR focuses on strengthening the

¹⁰ Voladet, Saykham. 2009. *The Plantation Industry in Laos: An Examination of the Role of the Ministry of Planning and Investment*. National Economic Research Institute (NERI), International Institute for Sustainable Development (IISD), and International Union for Conservation of Nature (IUCN).

¹¹ ICOR assesses the marginal amount of investment capital necessary for an entity to generate the next unit of production. Overall, a higher ICOR value is not preferred because it indicates that the entity's production is inefficient. The measure is used predominantly in determining a country's level of production efficiency (<http://www.investopedia.com/terms/i/icor.asp>; accessed December 2010)

¹² Transparency International, *Corruptions Perceptions Index 2010*, http://www.transparency.org/policy_research/surveys_indices/cpi/2010/results (accessed December 2010).

¹³ The World Bank. 2010c. *Doing Business 2010 Report*, <http://www.doingbusiness.org/economyrankings/> (accessed December 2010)

capacities of central and provincial authorities to integrate poverty-environment issues into development plans and to optimize investments. PEI is working at the national level, as well as in four target provinces: Savannakhet, Saravan, Phongsaly and Oudomxay. The purpose of this study is to review the current status of investments, concessions, natural resources and socio-economic development indicators in Savannakhet Province, as well as the capacity of the provincial investment management system to approve and regulate investments. This study also examines the economic, social and environmental impacts of investments in Savannakhet Province, both through an examination of provincial-level trends and two case studies. A similar process and report has been produced for Saravan Province. The objectives and methodology of the study are outlined further below. The information and analysis provided in this study will further support the work of PEI in Savannakhet, including the development of a provincial investment strategy and capacity building for its investment management agencies. It also provides useful guidance for decision-makers in government, the private sector and civil society who are interested in the impacts of investments to date and the formulation of strategies to ensure that they contribute to sustainable development.

1.2. Research objectives

The results from this study are intended to contribute to the development of an investment promotion strategy for Savannakhet Province and improvement of the province's investment management system. More specifically, this study aims:

- To assess the capacity of the investment management system in Savannakhet Province on the provincial level (as opposed to individual districts). The study assesses the capacities of agencies engaged in investment management, especially the Provincial Department for Planning and Investment (PDPI), the Water Resources and Environmental Office (WREO), the Land Management Office (PLMO), the Agriculture and Forestry Office (PAFO), and the Department of Industry and Commerce (PDIC). The organizational structure, human resources and financial capacity of each department and agency were assessed.
- To review the status of investments and concessions in Savannakhet Province to date, including the value, source and target sectors of investment flows in the province.
- To review the status of natural resources in Savannakhet Province, including land and land-use planning, forest cover, and water resources.
- To review the status of agricultural production in Savannakhet Province, including the role of agriculture, production modes, main products, production areas, productivity, and key actors and financial institutes supporting agricultural production in the province.

- To review the status of socio-economic development indicators, particularly change over time, including changes in provincial gross domestic product (GDP), per capita income, poverty rates, health and education indicators and other socio-economic trends in Savannakhet Province.
- To assess the overall economic, social and environmental impacts of investment in Savannakhet Province, with a focus on impacts experienced at the local level in two case study areas.

More information on the research methods used during the study and on the case studies selected for the province is provided below.

1.3. Research methodologies

To achieve the research objectives outlined above, as well as to promote local involvement and inter-agency cooperation in the project, a research team was formed in Savannakhet Province, comprising researchers from NERI and representatives from the key provincial departments and agencies involved in investment promotion and management, including PDPI, PAFO, WREO, PLMO, PDIC, the Governor's Office, and so on. While the research conducted in the province was lead by NERI, the team worked together to gather all the necessary data from various sectors in the province, as well as to carry out the case studies. The research methods included both desk-based research and participatory assessment approach, as outlined below:

- Literature review. The research team collected documents including previous research publications related to investment, social and environmental issues in Savannakhet Province, as well as monthly, quarterly and yearly development reports and data from several government departments. The research team also collected information on relevant laws and regulations. The literature review is the main source of secondary data and information.
- Focus group discussions. The research team organized focus group discussions with several provincial government departments related directly to investment management such as PDPI, WREO, PLMO, and PDIC. The Deputy Director Generals, Directors and main technical officers at each of these provincial departments participated in the discussions.
- Key informant interviews. In addition, to get more detailed information, the research team conducted individual interviews with key informants, including representatives of the Savannakhet PDPI, WREO, PLMO and PAFO, representatives of civil society organizations (such as the Youth Union, Lao Women's Union, Labor Union and non-government organizations, such as Norwegian Church Aid), and representatives of several key investment companies (including KOLAO, Savan Sugar Factory, Mitr Lao Sugar, Savan Banhao Tourism Company, Daosavanh Hotel, Savan Vegas Casino and Hotel, and Lao Thai Hua Rubber Company).

- Case studies. In order to better understand the impacts of investment at the local level, the research team conducted case studies focusing on economic, social and environmental costs and benefits of two specific investment projects in Savannakhet Province: the Mitr Lao Sugar Plantation and Factory; and the Savan Vegas Casino and Hotel. Based on nature of each investment project, the research team conducted the studies in different styles but each study examines the business in question, its activities and its impacts on surrounding villages. The findings are summarized in Section 5, and in the full case study reports provided in the Annexes to this study.
- Consultation workshops. During the course of the study, three consultation workshops were organized in order to seek the comments and advice of stakeholders to the project. An introductory and planning workshop was held at the beginning of the project; a second workshop was organized after the field survey and the preparation of the draft report; and the third workshop was held to discuss the revised report and results of the study in Savannakhet in October 2010.

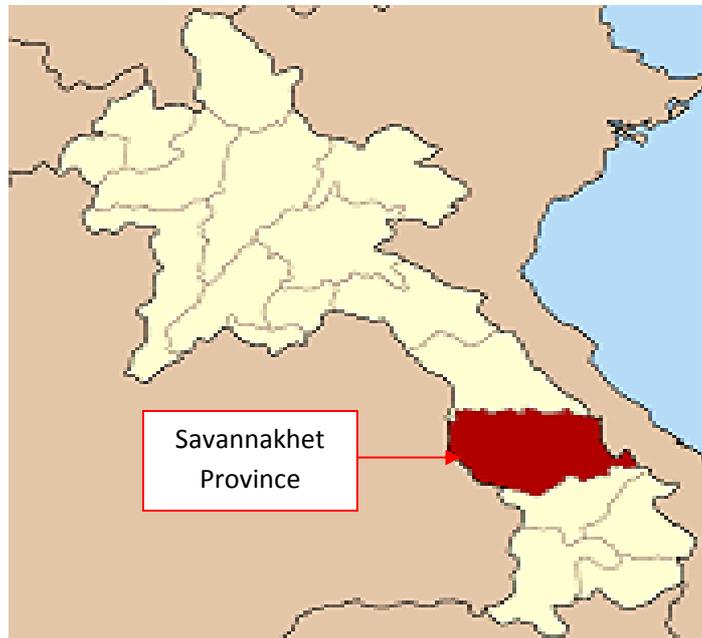
The information provided in this study is as recent and comprehensive as possible, although there are limitations to what data has been gathered by the relevant government agencies and what data can be made publicly available. For example, an accurate assessment of the status and trends related to biodiversity in the province and in the case study areas would require significant field work, which would not have been possible within the time and budget available. Further, the companies examined in the case studies were not able or willing to share all the information requested of them, such as data on financial revenues or taxes.

2. Geography, natural resources and socio-economic development in Savannakhet Province

2.1. Geography of Savannakhet Province

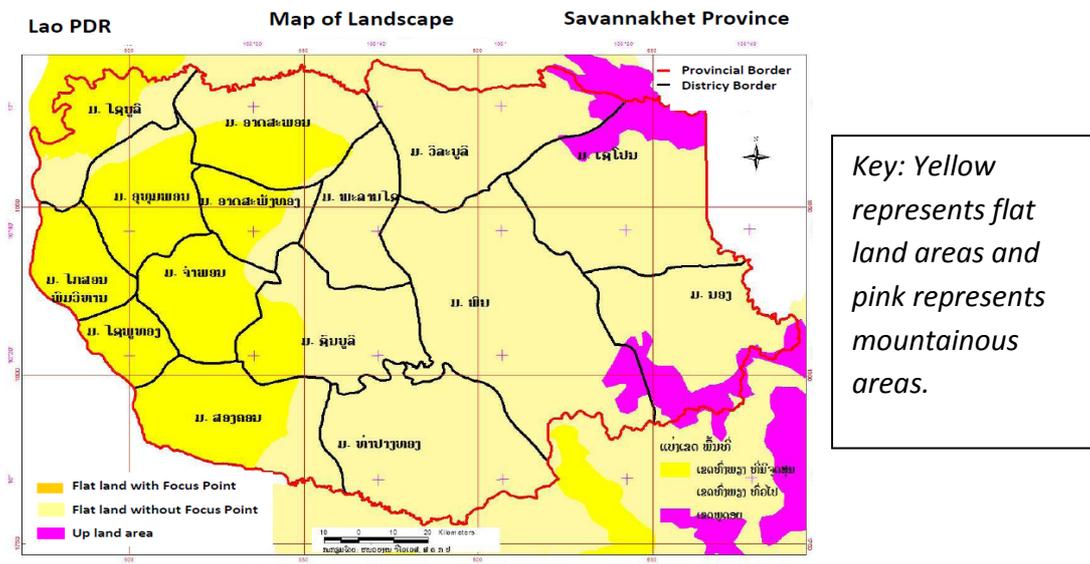
Geographical location: Savannakhet Province is located in central Lao PDR, about 470 km southeast of Vientiane Capital. It shares borders with Khammuane Province to the north, with Saravan Province to the south, with Quang Tri Province of Vietnam to the east and with Mukdahan and Nakhon Phanom Provinces of Thailand to the west (please see Map 1 below).

Map 1: Geographical location of Savannakhet Province



Source: NERI

Map 2: Landscape of Savannakhet Province



Source: Savannakhet PAFO

Landscape: Savannakhet Province has a total land area of 21,774 km². About 90% of the area is flat land and about 10% is considered mountainous, located in the eastern part of the province (as shown in Map 2 above). Savannakhet Province is rich in natural resources, including agricultural land, forests, rivers, mineral deposits and biodiversity (which will be discussed in greater detail in the sections below). According to statistical data provided by Savannakhet PAFO, the province has a total agricultural land area of about 1.5 million hectares (ha), representing about 68% of the total provincial land area. However, a large share of this agriculture land is considered to have low fertility. Currently, about 209,589 ha, representing only approximately 14% of total agricultural land, or about 9.6% of total provincial area, is in use for agriculture production. The remaining 86% of Savannakhet's agricultural land is not yet utilized for any purpose.

Climate: Savannakhet is the hottest and driest province of Lao PDR: the average temperature is estimated to be 26.1 degrees centigrade, which is about 2 degrees higher than the national average. The average rainfall is 1,598.3 mm per year, which is about 173.5 mm per year less than the average for the country as a whole. The average number of hours of sunlight per year is estimated to be 2,280, which is about 256.8 hours longer than the national average.¹⁴ However, the province's hot and dry climate does not appear to be a constraint for agricultural production, especially industrial plantations, including sugarcane, cassava, rubber, and so on. Because of its landscape and infrastructure development, Savannakhet has become one of the most suitable locations for investment in the agricultural sector. Although there are limitations to the availability of country-specific data and projections on the potential impacts of climate change, there is potential for climate change to reduce agricultural production in Lao PDR in the future. Average daily temperatures across Southeast Asia have already increased by 0.5 to 1.5°C between 1951 and 2000, and mean temperatures across the Mekong River Basin will most likely increase by another 0.79°C over the next 20 years¹⁵ (Eastham 2008). The Mekong River Commission (MRC) notes that climate change is expected to modify temperatures, rainfall and wind in the Lower Mekong Basin, affecting natural ecosystems as well as agriculture and food production, of serious concern in countries that rely strongly on natural resources. In Lao PDR agricultural and infrastructure losses due to increased storm intensity and frequency, land degradation and soil erosion from increased precipitation and a higher prevalence of infectious diseases are predicted.¹⁶

¹⁴ *Statistical Year Book of Savannakhet Province, 2008, and Statistical Year Book of Lao PDR, 2008.*

¹⁵ IPCC, 2007, and Eastham, 2008, cited in WWF. October 2009. *The Greater Mekong and Climate Change: Biodiversity, Ecosystem Services and Development At Risk.*

¹⁶ MRC. September 2009. "Adaptation to Climate Change in the Countries of the Lower Mekong Basin". *MRC Management Information Booklet Series, No.1.*

2.2. Natural resources in Savannakhet Province

Forest cover: Savannakhet Province has a total forest area of about 1.1 million ha, representing about 52%¹⁷ of the total provincial area. Of that forest area, about 46% is conservation forest, 40% is protection forest and about 14% is production forest. The main types of forest in Savannakhet Province are dry dipterocarp, lower and upper mixed deciduous, upper dry evergreen, bamboo, and poorly stocked forests.¹⁸ Savannakhet Province also has three National Biodiversity Conservation Areas (national protected areas, Phou Xang Hae; Dong Phou Vieng; and Xe Bang Noun) as well as a number of provincial protected areas, and one of Lao PDR's first wetlands site to be protected under the Ramsar Convention (Xe Champhone). The table and map below provide more detail on forest cover and categories in Savannakhet Province.

Table 1: Forest areas in Savannakhet Province

Kind of Forest	Area (ha)	Share to total land (%)
Conservation forest	510,864.5	46
<i>National conservation forest</i>	357,357.9	32
<i>Provincial conservation forest</i>	80,440.3	7
<i>Eng Mang biodiversity conservation forest</i>	72,738.6	6
<i>District conservation forest</i>	327.7	0
Protection Forest	452,425.7	40
Production forest	158,421.6	14
Total forest area	1,121,711.8	100

Source: Data provided by Savannakhet PAFO in 2010

¹⁷ As noted above, agricultural land is 68% of the province while forest cover is 52%. This seeming miscalculation actually results from the fact that some of the province's agricultural land is currently forested and not used for agriculture.

¹⁸ Chanthavong, Somphong. 2003. "Participatory Forest Management: A Research Study in Savannakhet, Laos". From IGES. 2003. *Toward Participatory Forest Management in Laos: Laos Country Report*, p. 44-54.

wood processing companies, second only to the number in Vientiane Province.²¹ The number of processing companies in the province, and that the dominant share of logs in Lao PDR have been sourced from its southern provinces²², suggests that the wood processing industry plays an important role in Savannakhet’s economy. According to data provided by Savannakhet PDPI, the total value of wood and products exports accounted for USD 47.5 million in 2006-2008; this represents about 3.5% of the total export value from Savannakhet Province during the same period. Wood and wood products are the third important export products of the province, after copper and gold.²³

Biodiversity: Savannakhet’s forests and other natural areas play an important role in hosting diverse biological resources, which are often essential in supporting local livelihoods. Wildlife and non-timber forest products (NTFPs), as in other parts of Lao PDR, are consumed by households as well as sold for extra cash income, forming an important part of livelihoods and safety net for rural people in times of food insecurity. NTFPs in the province include bamboo, dipterocarp resins, medicinal plants, mushrooms, cardamom and rattan. On average, a rural family consumes the equivalent of US\$280 per year in NTFPs, which is significant given that the per capita GDP of Lao PDR was about US\$880 in 2009²⁴ (and average income may be lower in rural and remote areas).

More than 500 plant species have been recorded in Savannakhet and Saravan Provinces, including a number of threatened dipterocarp (tree) species, and a 2007-2008 study in five districts in the two Provinces found a range of 40-90 plant species across the districts.²⁵ Table 2 shows the range of vertebrate species found in the two provinces as well:

Table 2: Vertebrate species found in Savannakhet and Saravan provinces.

Category	Total	Globally threatened
Freshwater fish	142	3
Amphibians	34	--
Reptiles	58	5
Birds	384	6
Mammals	95	27

Source: IUCN Lao PDR, 2008.

²¹ “Class A” companies refers to those that are considered well-run enough to merit reissue of a license during recent surveys of the wood processing industry by GoL. MAF & SUFORD. 2009. *Opportunities to Restructure Wood Industries in Lao PDR*.

²² MAF & SUFORD, 2009.

²³ *Statistical Year Book of Savannakhet Province, 2008*.

²⁴ IUCN Lao PDR. 2010. “Biodiversity and Livelihoods: Background issues paper for CoP 10” [Draft]. Figure for current Gross national Income (GNI) per capita is from the World Bank, <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD>.

²⁵ IUCN Lao PDR. 2008. *A Rapid Participatory Biodiversity Assessment: Stora Enso Eucalyptus Plantation in Southern Lao PDR*.

Threatened wildlife species found in Savannakhet include Siamese crocodile, Giant Ibis, Douc langur, Asian elephants, Eld's Deer and Green Peafowl, and the province may potentially host Saola, one of the most endangered animals in the world. Both the Siamese crocodiles and Eld's deer have been the targets of conservation programs to attempt to save these populations. According to a survey in 2005, Siamese crocodile populations in Lao PDR have decreased significantly in the past 20 years, with an estimated 115-372 adults remaining in five wetlands sites. In Savannakhet, the crocodiles are found in the river systems of the Xe Bangfai, Xe Banghiang and Xe Champone Rivers.²⁶ Fish species also constitute an important biological resource in Savannakhet as in the rest of the country. The fish species diversity in the Mekong Basin is currently estimated at 1200 species, with about 500 indigenous species in the Lao portion of the Mekong and its tributaries, of which 6-9 species are believed to be threatened.²⁷

More detailed surveys are required, but it can be inferred that the loss of forest cover and forest quality in Savannakhet has had negative impacts on the biodiversity of the province. Similarly, habitat loss and disturbance in the province's wetlands, streams and rivers through overharvesting, drainage and conversion to agriculture, pollution, damming and so on, can also be expected to negatively affect biodiversity. It is useful to take a broader view of biodiversity in Lao PDR, beyond protected forests, as being supported by a mosaic of landscapes: home gardens, forest gardens, cultivation plots, fallow land, regenerating forest, primary forest, forest plantations, wetlands, and so on. Areas of low biodiversity value may in fact have high livelihood value, particularly where local communities are very dependent on a limited number of species – access to those species then becomes vital. Conversion of low biodiversity areas, if linked to livelihoods, may also result in increased pressure on high biodiversity areas, as people look for new sources of biological resources.²⁸

Water resources: Many rivers flow across Savannakhet Province. The most important of these rivers are the Mekong, Xe Banghiang, Xe Bangfai, Xe Noy, Xe Champone, Xe Sansoy, Xe Lanong, Xe Pone and Xe Thamouak. Savannakhet Province is also the location of one of Lao PDR's first Ramsar-listed wetlands, Xe Champhone. The rivers and wetlands provide an important habitat for aquatic species, as well as a basis for irrigation system development and electricity generation. The province already has existing irrigation schemes, including Nongtao Lake, originally constructed for rice paddy irrigation. Currently, the GoL and provincial authorities are also conducting feasibility studies for a number of additional large irrigation projects for agriculture in the area, as well as investigating and constructing a total of five hydro- electricity

²⁶ Mekong Wetlands Biodiversity Programme. 2006. *Siamese Crocodile in Lao PDR: Preliminary Status Review of Siamese Crocodile in Lao PDR*.

²⁷ MAF & STEA 2003 and ACB 2009, cited in GoL. September 2010. *Fourth National Report to the Convention on Biological Diversity*.

²⁸ IUCN Lao PDR, 2008.

projects, as outlined in Table 2 below.²⁹ These hydropower projects are generally a joint venture between the GoL, which takes a stake in the projects, and the investment companies.

Table 3: Major hydropower projects in Savannakhet Province, 2010

Project name	Investors	Size (installed capacity)	Status
Tad Sakok	Dao Savan Group	NA (being investigated)	MoU for investigation signed
Tad Salean	SCI Electric Manufacturer Com.,Ttd	3.2 Megawatts	Under construction
Se Lanong	Simuang Group	NA (being investigated)	MoU for investigation signed
Se Banghiang I	Songda Company (Vietnam)	NA (being investigated)	Under investigation
Se Banghiang II	Songda Company (Vietnam)	NA (being investigated)	Under investigation

Source: Savannakhet Provincial Department for Electricity and Mining

Water supply is also an issue in Savannakhet, one of the country's drier and hotter provinces. According to results from focus group discussions and the participatory assessment conducted for this study, local people feel that there is a connection between the growth of the plantation industry (especially sugarcane, rubber and eucalyptus) and changes to their water resources. The groups explained that water levels in several steams and swamps, including Hua Khamsichane and Hua Tamping (around Donpung village) have lowered significantly since the expansion in the number and size of plantations in the area. They explained that the streams and swamps used to have water all year round and were important fishing areas for local people but now have no water during the dry season. The relationship between forests or plantations and water flow and quality is a complex one, dependent on numerous factors, such as the species involved, local rainfall, access to irrigation, soils, and so on. According to a UNDP environmental and social impact assessment for a eucalyptus plantation in China, forests and plantations can usually reduce dry season flow in low rainfall areas, like South Africa and Australia³⁰. Biofuel crops can also be water-hungry, of particular concern for areas relying on irrigation.³¹ The implications of increased investments in the natural resource sector in Savannakhet Province on its water supply and quality will require careful considerations; in particular, the potential impacts of hydropower and irrigation development are interwoven

²⁹ List of projects based on data sheet provided by the Savannakhet Provincial Department for Electricity and Mining.

³⁰ UNDP. 2006. *Environmental and Social Impact Analysis: Stora Enso Plantation Project in Guangxi, China*.

³¹ IWMI. 2008. "Water Implications of Biofuel Crops: Understanding Trade-offs and Identifying Options". *Water Policy Brief*, Issue 30.

with the impacts of plantations development and the negative effects of continued forest loss and degradation.

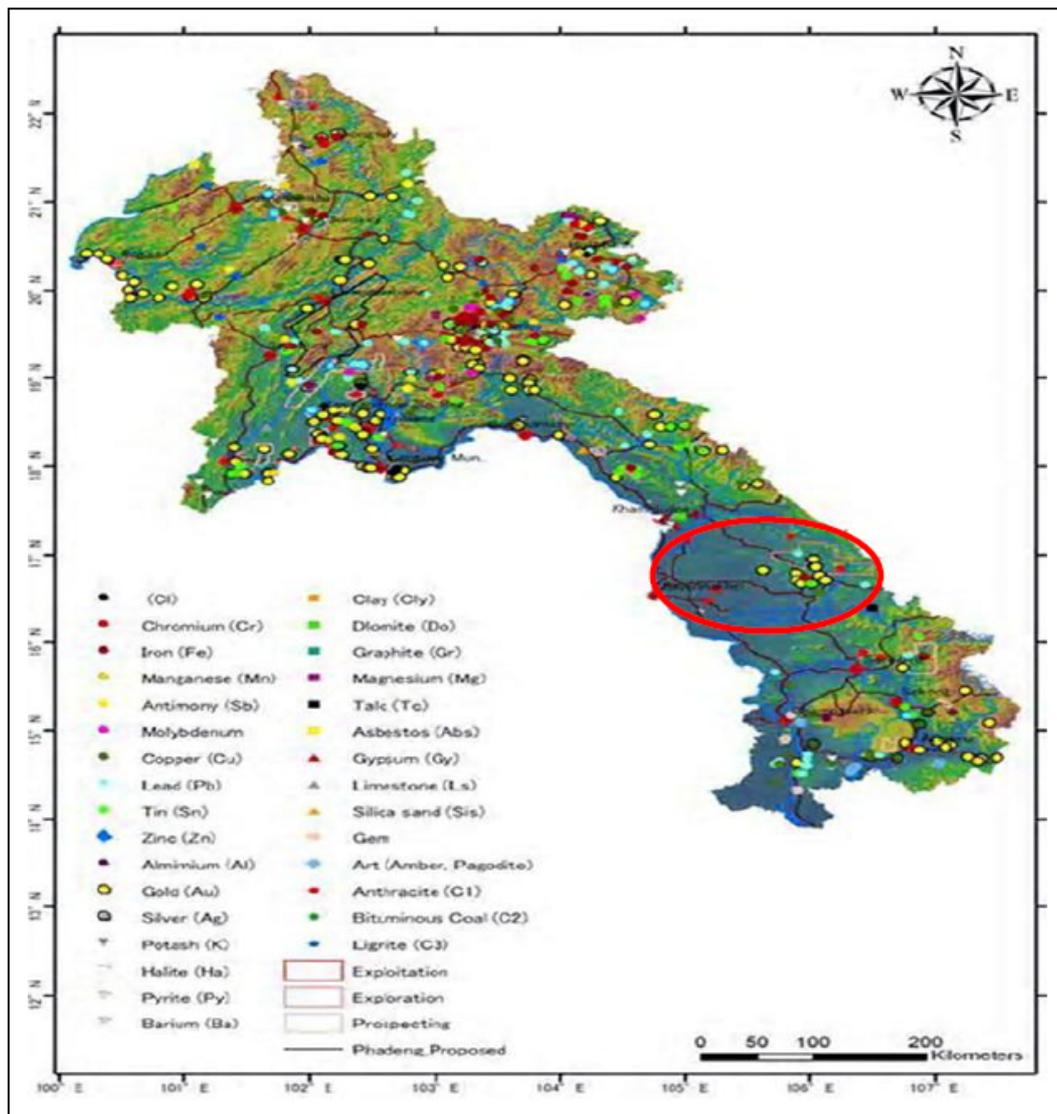
Mining: Savannakhet Province is rich in mineral resources, including deposits of copper, gold, ceramics, potassium, sodium, and iron. According to the Provincial Department for Electricity and Mining, more than 10 important mineral deposits have been found in the province: three copper deposits, two gold deposits, one gypsum deposit, one limestone deposit, one sodium deposit, one baric deposit and three potassium deposits. As in other parts of Lao PDR, mining projects are still generally exploratory and/or small scale, with only two mines already established in the province - the Sepon Gold & Copper Mine (Australian/Chinese investment), and one ceramics mine (Vietnamese investment). The Sepon mine is the largest gold and copper mine in Lao PDR and is now part of the MMG group of businesses. MMG is owned by China Minmetals Non-ferrous Co., Ltd, a division of China Minmetals Corporation, one of the largest state-owned enterprises in China. It produces and exports about 100,000 ounces of gold and 60,000 tons of copper annually to the world market and employs over 4,000 people.³² The project is one of the biggest contributors of government revenue in the country: according to a company press release, in 2009, the total of various taxes and dividends submitted to the GoL by MMG amounted to USD\$80.5 million.³³ Mining and electricity accounted for 23% of FDI in Savannakhet Province during 2004-2010 (see section 3.4 below for more detail).

To date, the GoL and provincial authorities have permitted domestic and foreign mining companies to investigate a further 16 mining deposits in Savannakhet Province. These include but are not limited to: a gold deposit in Hua Hork village, Sepon District (Sinniyom Mining Limited), an iron deposit in Lat Hor village, Sepon District (Lao-Vietnam Cooperation Company), a barite deposit in Hua Hong village, Villaburi District (Drilling Mud Cooperation Company), a sodium deposit in Kok Lieng village, Champhone District, and three potassium deposits in Champhone, Xonburi, Songkhone and Xayburi districts (Siwane, Laokayyuane and Lao-Viet Cooperation Limited).

³² The Ministry of Planning and Investment. 2010. *Investment Magazine*.

³³ MMG. 19 July 2010. "MMG Receives Foreign Investment License for Laos". <http://www.mmg.com/shared/1591.aspx> (accessed December 2010).

Map 4: Mineral deposits in Savannakhet Province



Source: DOG, 2009, in Kyophilvong, 2009

The mining sector is one of the biggest contributors to national revenue in Lao PDR and plays a key role in the GoL's economic development strategies. According to the World Bank, the mining and quarrying sectors together contributed about 2.5 percentage points to the overall growth rate, and FDI in the mining sector accounted for about 18% of total FDI, in 2009.³⁴ Lao PDR's *Minerals Law* states that it aims to ensure the efficiency of the exploration, mining and processing of minerals in conjunction with environmental protection and socio-economic development.³⁵ However, although mining projects add to government revenue, provide jobs

³⁴ The World Bank, 2010b.

³⁵ Lao PDR National Assembly. 2010. *Minerals Law*. [Working draft and unofficial translation, March 2010].

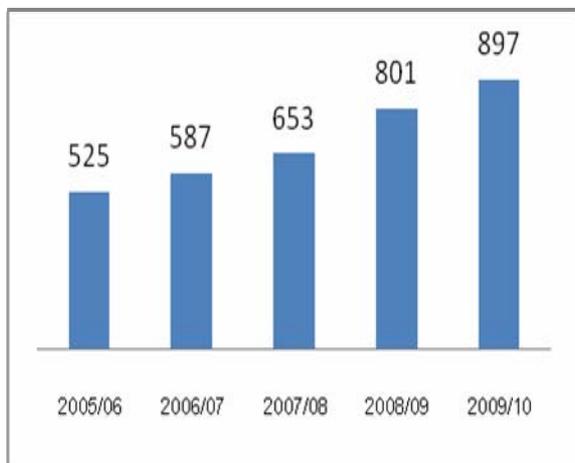
and contribute to rural development, potential negative social and environmental consequences for local communities need to be managed carefully. These include spills of pollutants damaging waterways and fish stocks, loss of land, forest resources and biodiversity, and increased migration into mining areas. The regulations and framework that governs investments in the mining sector in Lao PDR, including environmental and social impacts assessments (ESIAs) is described in greater detail in Section 3 on investment management below.

2.3. Socio-economic development in Savannakhet Province

2.3.1. Macro-economic development

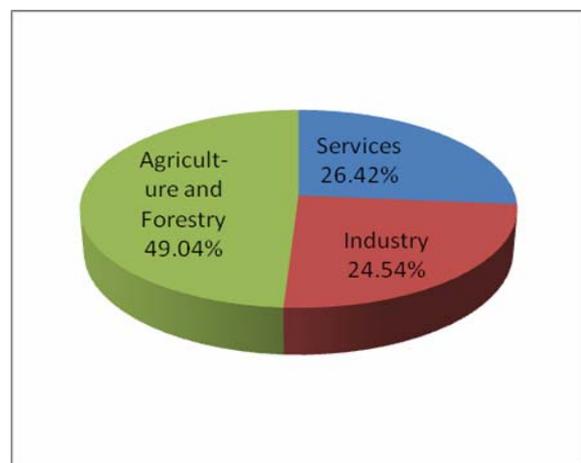
Savannakhet Province has experienced rapid economic growth in recent years. During the last five years, the province’s economy grown at a rate of 10.5% a year. This is significantly higher than the growth rate of the whole country during the same period (6.8% per year).³⁶ The GDP per capita in the province has been increasing at the same time, from USD 525 in fiscal year 2005-06 to USD 653 in fiscal year 2007-08 and further to USD 897 fiscal year 2009-10, which is also higher than the national figure (USD 880 per person in 2009³⁷). Figure 1 below presents more details on increasing GDP per capita in Savannakhet Province.

Figure 1: Increasing GDP per capita in Savannakhet Province, 2005/06-2009/10, (USD)



Source: Savannakhet PDPI. Five Year Plan (2011-2015) [Draft]

Figure 2: Economic structure of Savannakhet Province, 2009/10 (%)



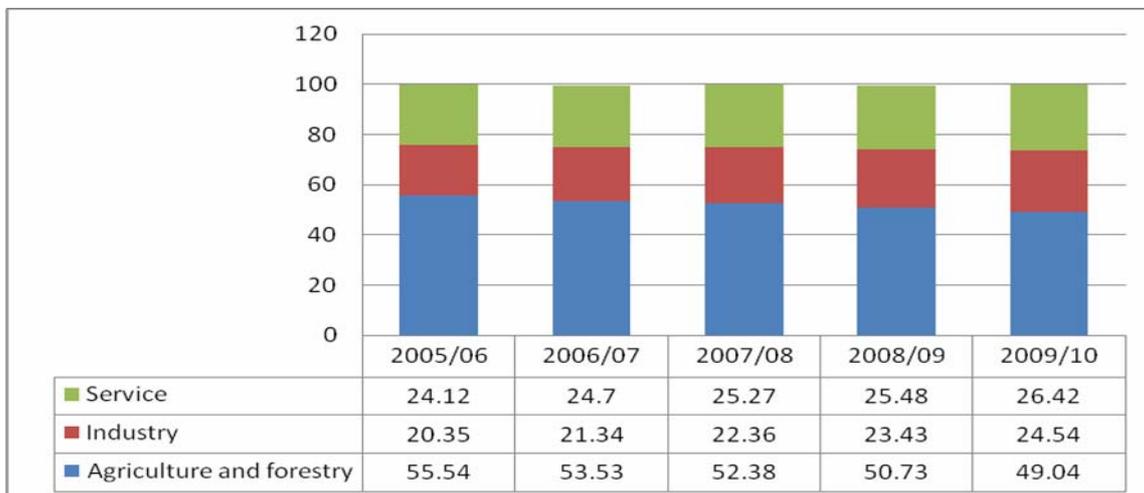
Source: Savannakhet PDPI. Five Year Plan (2011-2015) [Draft]

³⁶ GDP increased on average 6.8 percent a year; but the GDP per capita increased on average 4.8 % because the population in Lao PDR increases around 2% a year.

³⁷ The World Bank, 2010a.

Agriculture remains the main economic sector in Savannakhet Province. In fiscal year 2009-10, this sector contributed to about 49.04% of the total production value of the province, followed by the service sector and industry sector which contributed about 26.42% and 24.54% respectively of provincial total production value in the same fiscal year. Figure 2 above presents this in more detail. However, the contribution of agriculture to total production value has declined gradually from 55.54% in fiscal year 2005-06 to 52.38% in 2007-08, and further to 49.04% in 2009-10. The contribution of the industry and service sectors has been increasing gradually between 2005 and 2010. Figure 3 below shows the province’s changing economic structure change from 2005-06 to 2009-10.

Figure 3: Changing economic structure in Savannakhet Province, 2005/06-2009/10



Source: Provincial Department for Planning and Investment. Five Year Plan, 2011-2015 [Draft]

The trends in Savannakhet’s economic structure indicate that the role of agriculture is shrinking while the industry and services sectors are growing. However, it is important to note that while traditional subsistence agriculture is declining, agriculture as an industry is growing. Over the last five years, the sector has had an average growth rate of 7.3% a year³⁸, even as its share of the provincial production value declined. This is simply because the industry and service sectors are experiencing growth at a higher rate (about 24.1 and 20.1% respectively).³⁹ This suggests that many people in the province are still earning a living in the agriculture sector, but that traditional livelihood patterns are being replaced with new more industrialized modes of production. The modes of production and productivity of the sector will be discussed in greater detail in Section 4 below.

³⁸ Savannakhet PDPI. Five Year Plan (2011-2015) [Draft]

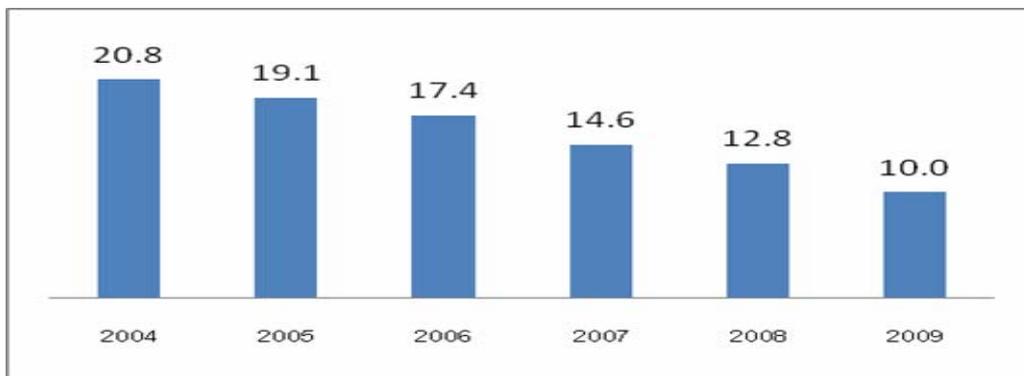
³⁹ Estimated by research team by using production value data provided by PDPI.

Savannakhet is the second most important industrial center in Lao PDR after Vientiane Municipality. As shown above, the contribution of the industry and service sectors to the economy is growing, albeit gradually. As also noted below with regards to employment, the province still does not have enough economic opportunities in its various sectors to provide sufficient employment. The situation is changing, however, with recent years seeing the establishment of more large-scale developments, including the Sepon Gold and Copper Mine in 2003 and the Savan Park Special Economic Zone, which started development in 2008. In 2008, Savannakhet had 2,554 registered manufacturing businesses, of which 97.3% were small-scale engaging fewer than 10 workers, and less than 1% were considered large-scale (usually garment factories, wood processing factories, and the assembly plants for electric appliances).⁴⁰

2.3.2. Poverty reduction

In line with economic growth, the incidence of poverty in Savannakhet Province has been decreasing consistently from 20.8% in 2004 to 17.4% in 2006 and further to about 10% in 2009 (see footnote 36 below for an explanation of the GoL’s definition of poverty). On average, poverty in Savannakhet has been declining by about 1.8 percentage points each year. This rate of reduction is significantly higher than the reduction rate for whole of Lao PDR during the same period (about 1% each year). Figure 4 shows decreases in poverty, while Table 4 and Map 5 show the geographical spread of poverty in the province.⁴¹

Figure 4: Poverty reduction in Savannakhet Province, 2004-2010 (%)



Source: Savannakhet PDPI. Five Year Plan, 2011-2015 [Draft]

⁴⁰ Savannakhet PDPI. *Statistical Summary on Production, Exports and Imports in fiscal year 2008-2009*.

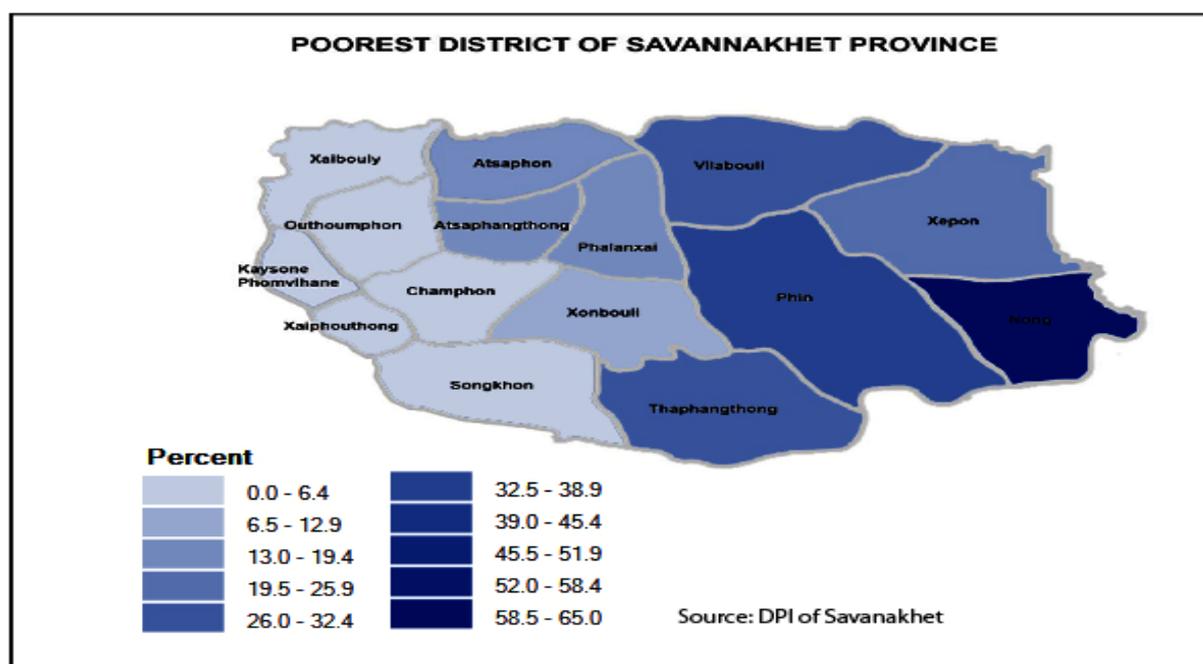
⁴¹ The WHO defines the poverty line based on calorie consumption. According to the Organization, there are two kinds of poverty lines, i.e. food poverty and general poverty line. The food poverty line means consumption of less than 2,100 calories per person per day and the general poverty line means food poverty plus 20% of the local price of 2,100 calories. Based on that, the GoL developed a Lao national poverty line. The food poverty line in Lao PDR is understood as consuming of less than 16 kilogram rice per person per month and the general poverty is understood as food poverty line plus 20% of local price of 16 kg rice. That means households consuming and spending less than the line are identified as poor household. In general poverty in Lao PDR is understood as inability to satisfy basic needs including food consumption, clothing and housing.

Table 4: Poverty incidence in Savannakhet Province, by district, 2009

Districts	Number of HH	Poor HH	Incident (%)
Kaisone Phomevihane	19,229	0	0.0
Outumphone	12,706	496	3.9
Atsaphanthong	6,608	61	0.9
Phin	8,032	2,983	37.1
Sepon	8,400	2,178	25.9
Nong	3,714	2,287	61.6
Thapangthong	5,171	1,346	26.0
Songkhone	15,920	136	0.9
Champhone	18,422	135	0.7
Xoneburi	7,696	975	12.7
Xayburi	8,797	313	3.6
Vilaburi	5,343	1,496	28.0
Atsaphone	8,271	1,164	14.1
Xayphuthong	8,796	0	0.0
Phalanxay	5,227	716	13.7
Total	142,332	14,286	10.0

Source: provided by Savannakhet PDPI.

Map 5: Poverty in Savannakhet Province



Source: Created by NERI using data provided in Statistical Year Book of Savannakhet Province, 2009

Currently over 84,000 people or 14,286 households are still living below the poverty line. Most of these people are living in the remote areas in the eastern part of the province, where road and other infrastructure is less developed and access to markets is difficult. It is more difficult to attract investment into these areas, but certain industries are making inroads, such as the plantation industry. This raises implications for the management of these investments, to ensure that the province's poorer and more vulnerable communities can exercise a say in the development of these new industries and benefit from them.

2.3.3. Population and labour force

Savannakhet is the most populated province of Lao PDR. The province has a total population of 843,245 people, representing about 13.9% of the population of the whole country. According to the most recent population census from 2005, the average population growth rate in Savannakhet Province is estimated to be 2.1% per year: this is the same population growth rate as the whole country. The population of the province is divided into 49 ethnic groups, which have differences in their culture, traditions and livelihoods. The majority of the population in Savannakhet Province is Lao Lum, which makes up about 62.1% of the population. This is followed by Phu Tai, Ma Kong and Ka Tang, which make up about 15.2%, 9% and 8.7% respectively of total population of the province. The remaining 4.9% of the population belongs to other ethnic groups.⁴²

About 63% of the population is of working age (16-60 years old).⁴³ The age structure of the population can be considered conducive for investment, as the majority of the population is able to work. However, a large share of the population has a relatively low level of educational attainment and has never had any vocational training (see Section 2.3.6 below for more data on access to education). They are engaged mainly in subsistence agricultural production and have little to no experience with commercial agricultural work, factory work or large construction projects. According to the various investment companies interviewed during the study, the education level and work experience of the population remains a restriction or limitation for domestic and foreign investment in the province.

Although Savannakhet Province contains one of the country's major urban centers and is relatively prosperous, it has insufficient economic opportunities to meet the demand for employment: agricultural work is seasonal, high wages available in Thailand pull Lao migrants across the border, and access from Savannakhet is easy.⁴⁴ In 2003, it was estimated that 8.65% of the population of Savannakhet Province were migrants, either in other parts of Lao PDR or other countries. Of these, more than 87% migrated to other countries, and more women

⁴² Savannakhet PDPI, Savannakhet Province Population Census, 2005.

⁴³ *Statistical Year Book of Savannakhet Province, 2008*.

⁴⁴ Haughton, James. 2006. *Situational Analysis of Human Trafficking in the Lao PDR, with Emphasis on Savannakhet*. Literature study undertaken for World Vision Lao PDR.

migrated than men.⁴⁵ The majority of migrants leave by choice, and although exact figures are not available, there is a small proportion of migrants who are victims of human trafficking.

2.3.4. Infrastructure development and regional integration

Savannakhet Province has relatively good road infrastructure integrating it with many socio-economic centers in Lao PDR and in foreign countries. This helps to facilitate the movement of goods and people within the country and with its neighbours, making the province a more attractive place to invest. Roads in rural areas also help farmers and other rural entrepreneurs access markets.

Savannakhet Province has a total road length of 28,012.92 km, of which 40.7 km is concrete road, about 2,553 km is tarred road, 6,720.4 km is gravel road, 18,237.2 km is earth road, and 461.5 km is asphalt road. The road density is estimated to be 0.8 km per km² and the road length per capita is estimated to be 21km/1,000 people.⁴⁶ This is relatively high in comparison with Lao PDR as a whole (which has 5.4 km of road per 1,000 people). The table and map below provide more information on the province's road network.

Importantly, the province shares its borders (and has international border gates) with both Vietnam and Thailand, which are important trade and investment partners for Lao PDR in general and Savannakhet Province specifically. In addition, the National Road Number 13 crosses the province from north to south and integrates the province with several key trade and economic centers in Lao PDR, such as Vientiane Capital to the north and Pakse to the south. Because of its infrastructure development and geographical location, Savannakhet province is a strategic location for trade and investment in Lao PDR.

Table 5: Statistical data on road infrastructure in Savannakhet Province

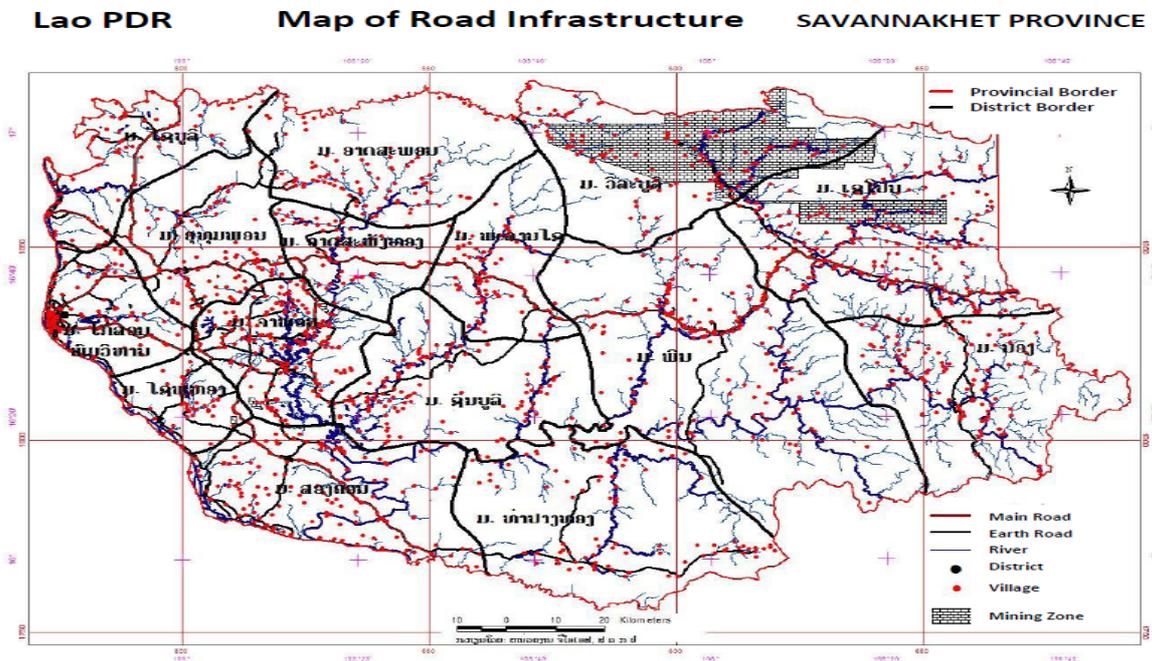
Items	Lao PDR	Savannakhet
Length of road (km)	32,600	18,237.2
Road density (km/km ²)	0.14	0.8
Length per capita (km/1,000 people)	5.4	21.6

Source: Estimated by NERI based on data provided by Savannakhet PDPI

⁴⁵ MoLSW and the National Statistical Centre, 2003, cited in Haughton, 2006.

⁴⁶ Estimated by research team by using data provided in *Statistical Year Book of Savannakhet Province, 2008*.

Map 6: Road infrastructure in Savannakhet Province, 2009



Source: Provided by the Provincial Department for Public Works and Transportation

Savannakhet Province also has relatively comprehensive and developed communication and information exchange infrastructure. According to information provided by the PDPI during focus group discussions, the mobile telephone network/signal covers over 60% of the total provincial area. Domestic, Thai and Vietnamese television and radio networks/signals cover about 90% of the province. Combined with transportation access, Savannakhet’s telecommunications and information infrastructure help it to integrate better with other parts of Lao PDR and with its neighbours, and provide access to the outside world for a substantial portion of its population.

2.3.5. Access to health services

Savannakhet Province has a relatively developed healthcare system. The province has one provincial hospital, 15 district hospitals and 115 community health stations, and the system covers about 88.5% of the province’s geographical area. This coverage provides the population with relatively good access to health services.⁴⁷ Vaccination for mothers and children covers about 78% of the population, which is significantly higher than that for the whole of Lao PDR. The relatively comprehensive access to health services leads consequently to relatively good health indicators in Savannakhet Province, as shown in Table 6 below.

⁴⁷ Savannakhet PDPI. *Five Year Plan, 2011-2015* [Draft]

Table 6: Some important health indicators in Savannakhet Province

Health indicators	Savannakhet Province	Lao PDR
Average life expectancy (years)	64 (2009)	63.5 (2009)
Mortality rate of children under 1 year old	35/1,000 (2009)	70/1,000 (2005)
Mortality rate of children under 5 years old	46/1,000 (2009)	98/1,000 (2005)
Death rate of mothers in childbirth	269/100,000 (2009)	450/100,000 (2005)
HIV/AIDS cases	1,275 (2009)	3,118 (2009)

Source: based on data from: MPI. Five Year Plan 2011-2015 [Draft]; and Savannakhet PDPI. Five Year Plan, 2011-2015 [Draft].

However, the province's has a significant number of HIV/AIDS cases, likely linked to its convenient transit routes, high migration rates, growing integration with neighboring countries and increasing tourism flows.⁴⁸ Savannakhet Province had 1,275 HIV cases in 2008, representing 40.9% of all cases in Lao PDR, according to official data, although other reports have placed the current number of cases as higher.⁴⁹ Savannakhet Province is thus the highest HIV/AIDS infected province in the country, with potential implications for healthcare and human development in the future.⁵⁰

2.3.6. Access to education

The province's education system has improved gradually during last decade. The whole province has a total of 240 kindergartens, 1,199 primary schools, including 617 completed primary schools⁵¹, 156 secondary schools (including 108 lower secondary schools and 48 completed secondary schools), and one monk secondary completed school. In addition, there are seven vocational schools in the province. The province opened its first university in 2009 (Savannakhet University). However, Savannakhet Province has higher literacy rates yet a

⁴⁸ See, for example, Houghton, 2006; ADB. 2009 "Reconsidering Highway Traffic: Women, Children and HIV/AIDS". <http://www.adb.org/gender/practices/transport/lao001.asp> (accessed December 2010); and UNESCO."HIV Prevention and Health Promotion: Lao PDR HIV/AIDS Profile". <http://www.unescobkk.org/?id=5381> (accessed December 2010).

⁴⁹ For example, KPL News. 3 September 2010. "Aids Kills over 1000 in Laos". <http://laovoices.com/2010/09/03/aids-kills-over-1000-in-laos/> (accessed December 2010).

⁵⁰ Database of the National HIV/AIDS Prevention Center, the Lao PDR Ministry of Health.

⁵¹ The list of primary schools comprises non-completed and completed primary schools. The non-completed primary school is that having only class 1 to class 3 while the completed primary school is that having class 1 to class 5.

relatively lower school attendance rate, compared with Lao PDR as a whole. Table 7 below presents indicators from 2009.

Table 7: Education indicators in Savannakhet Province, 2009

Items	Savannakhet Province	Lao PDR
Literacy rate of people aged 15 years and over	90.1	83*
Kindergarten attendance rate	19.2	16*
Net enrolment rate at primary school	86.7	91.6
Net enrolment rate at lower secondary school	45.1	63*
Net enrolment rate at upper secondary school	24.3	28*

Source: Savannakhet PDPI and the Ministry of Planning and Investment; * = Estimated number in NGPES

In Lao PDR there remains an imbalance in school attendance between males and females, particularly for females in rural areas. Nationally, at the primary school level, the gap is relatively small, at 2% in 2009/2010. The gender gap increases at higher levels of education, and girls make up a larger proportion of the people who have never been to school: 17% of girls compared to 11% of boys.⁵² The same situation exists in Savannakhet province. The proportion of girls who have never been to school is estimated to be 14.8% while the same proportion of boys is estimated to be about 12.5% (in 2006).⁵³

Education, training and work experience of the population is considered an important condition for the encouragement of socio-economic development and investment in particular. As noted above, the investment companies consulted during this study listed the educational level and experience of the working population in Savannakhet as a limitation for business in the province.

3. Investment management system and data on investments and concessions in Savannakhet Province

In this section, the research team analyzes four main aspects of investment in Savannakhet Province, including: (1) laws and regulations related to investment and concession approval and management; (2) investment and concession approval procedures; (3) the capacity of relevant agencies, especially those taking the main responsibility for investment approval and

⁵² The World Bank. 2010d. *Lao PDR Country Policy and Institutional Assessment 2010*. Vientiane, Lao PDR.

⁵³ Estimated by research team based on data provide in *Summary of Implementation of Education Development Plan 2005-2006* of Savannakhet Province.

management (including the PDPI, WREO, PAFO, PLMO, PDIC); and (4) statistical data on investments and concessions in Savannakhet Province since 2004.

3.1. Laws and regulations related to investments and concessions

The GoL aims to implement sustainable development policies, which simultaneously promote economic, social and environmental development. Lao PDR has a relatively comprehensive regulatory framework designed to achieve those goals. The following section will outline the key laws and regulation related to managing investments and concessions, which have been promulgated at the national level.

Law on Investment Promotion (2009): The *Law on Investment Promotion* (LIP 2009) is used to regulate investment activities within the Lao PDR, combining both foreign *and* domestic investment regulations within the one document. It aims to streamline the investment process by removing the previous requirement of the investor having to go to four different ministries to obtain the Investment License, Company Seal, Tax Registration Certificate and Enterprise Registration Certificate; both the Enterprise Registration Certificate and the Concession license now comprise all four documents in one, and may be issued in one place, by the Ministry of Industry and Commerce (MoIC) and the Ministry of Planning and Investment (MPI) respectively. The new LIP 2009 has officially been enacted and has ‘technical’ applicability. However, because the *Decree on the Implementation of LIP 2009* (Draft Decree 2009) is not yet finalized, there are currently implications in using this law to govern an investment. However, for the purposes of this report, the procedures for investing in the Lao PDR will be set out below according to the LIP 2009 and the Draft Decree 2009.⁵⁴

Key features of the LIP 2009 include:

- ***One Stop Service (OSS)***: The new LIP 2009 has mandated the creation of a “one-stop service” in order to promote investment and to assist investors by alleviating some of the difficulties associated with the application process.⁵⁵ According to the LIP 2009⁵⁶, the OSS exists at two levels, central and provincial, and it has offices established at the Planning and Investment sector (P&I), the Industry and Commerce sector (I&C), and at Special Economic Zones and Specific Economic Zones. The OSS is based on the principle that investors can submit an application and receive a reply at the same place. All decisions relating to the investment shall be made through the meeting of the office of the OSS and it shall perform all services in a timely and efficient manner the Law requires investors to have received a response

⁵⁴ It is important to be aware that the Draft Decree 2009 referred to in this report is still subject to change, meaning that some of the information regarding the roles and responsibilities of the committees may not be relevant in the future.

⁵⁵ Article 12, Draft Decree on the Implementation of the Promotion of Investment Law 2009.

⁵⁶ Reiterated by Article 12 of the Draft Decree on the Implementation of the Law on Investment Promotion 2009.

within 15 days). Transparency shall be upheld, with all information pertaining to fees and charges and all relevant information and solutions to various problems disclosed.⁵⁷

- *Investment Committees:* The LIP 2009 has also attempted to set out more clearly the roles and responsibilities of the central and provincial levels of the GoL. More responsibility has been assigned to the local level, with Article 84 of the LIP 2009 stating that the local level's main task is to issue licenses and manage investments. The central level is also charged with issuing licenses but their role extends to the management of investment activities of a more technical or 'strategic' nature.⁵⁸ The responsibilities of the central level also include macro-management, in 'encouraging and monitoring the implementation of the local level'.⁵⁹ Both the central and provincial levels shall be responsible for the management, follow-up, inspection and evaluation of all investments for which they have specifically issued the license. While membership of the Investment Committees has not yet been outlined in the Draft Decree, MoIC have indicated in recent discussions with MPI that membership will be based on the Committee for Promotion and Management of Investment (CPMI) referred to in the 2004 *Laws on the Promotion of Foreign Investment and Domestic Investment* and the existing *Investment Decree (2005)*. The CPMI is extant at two levels, the central and provincial levels. As an example, the I&C sector committee at the provincial level will most likely comprise the provincial Governor or capital city Mayor, plus vice-governors or vice-mayors.
- *Investment types:* Article 4 of the LIP 2009 holds that the State promotes both foreign and domestic investments 'in all sectors, activities and all regions in the whole country, except those zones and activities which are detrimental to the national security and peace, have harmful impacts to the environment at present time and in the long term, to the public health and to the fine culture of the country'. According to Article 13, the types of investment activities categorized as follows:
 1. General activities (e.g. restaurant, bars, retail)⁶⁰
 2. Concession activities
 3. General Activities in SEZ and SpEZ

⁵⁷ Articles 45(1)-(6), Law on Investment Promotion (2009).

⁵⁸ Article 84, Law on Investment Promotion (2009).

⁵⁹ Article 83, Law on Investment Promotion (2009).

⁶⁰ Article 14 of the LIP 2009 defines general activities as investment activities within the general business sector, including those which are on the list of controlled business types but excluding concession activities. Since the Draft Decree on the LIP 2009 has not yet executed such a list, the examples given above are drawn from the 2005 'Decree of the Prime Minister regarding the Implementation of the Law on the Promotion of Foreign Investment'.

The procedures for submission and consideration of investment applications, with a focus on the provinces, will be discussed in greater detail below. Annex 1 provides a flow chart detailing the investment application process.

Enterprise Law (2005): The *Enterprise Law* (2005) has relevance to investment procedures, defining enterprise registration, stating that any person intending to conduct business shall file a notification for enterprise registration with the concerned State agencies, and outlining the procedures and timeframe for registration. The ‘concerned State agencies’ differ depending on the type of investment, as stipulated in the LIP 2009. For investments categorized as Concession Activities, applications shall be submitted to the OSS of the P&I sector, at either the central or provincial level.⁶¹ For General Investments, the concerned State agency shall be the OSS of the I&C Sector, at either the central or provincial level.⁶² SEZ investments shall be submitted to the OSS of the Zone Authority at the SEZ site.⁶³

Environmental Protection Law (1999): The Environmental Protection Law sets out basic principles of environmental protection at Article 5, stating that all persons and organizations residing in the Lao PDR have an obligation to protect the environment. Regarding investment approval, it states that development projects and operations that have or will have the potential to affect the environment shall submit an Environmental Impact Assessment (EIA) report in accordance with the regulations of what is now WREA⁶⁴, who are responsible for environmental management and monitoring, and the issuance of an Environmental Compliance Certificate (ECC) before starting the project.

ESIA Regulation (2010) (now combining Environmental Assessment Regulation (STEA, 2002): The *Decree on Environmental and Social Impact Assessment* was only recently enacted in February 2010. It incorporates consideration of both environmental and social impacts caused by investment projects, and it designed to ensure that prevention and mitigation measures are taken. Chapters one to five in particular refer to the ESIA process, which is outlined in the flowcharts at Annex 2. In short, before signing any Concession agreement or Mineral Exploration and Production Agreement (MEPA), before starting any construction work or before any operating permit can be issued, an investor undertaking a project likely to have adverse environmental and social impacts needs to obtain an ECC or a report on ESIA, an EMMP and a Social Management and Monitoring Plan (SMMP).⁶⁵ All applications are sent to the WREA for consideration and approval. The level of WREA required to review the application is determined by the type/category of project, which is associated with its anticipated impacts

⁶¹ Article 21, Law on Investment Promotion (2009).

⁶² Article 17, Law on Investment Promotion (2009).

⁶³ Article 43, Law on Investment Promotion (2009).

⁶⁴ Article 36, Environmental Protection Law (1999).

⁶⁵ Article 13, ESIA Decree (2010).

(see Annex 3 for a copy of the list of project categories that supports the ESIA Decree). The incorporation of an EMMP into the ESIA is necessary for a range of projects.

Land Law (2003): As specified in Article 10 of the *Land Law*, the Land Management Authorities are responsible for, among other things, coordinating with concerned sectors and local administrations to plan the use of land, to protect and develop the land, and to define land areas for certain uses. The Law states that the National Land Management Authority (NLMA) can allocate land use rights to lease or grant concessions, and to withdraw the right to land use. Article 13 sets out the right of Lao citizens to ‘lease land from the State for a period not exceeding thirty years’, though this period may be extended depending on each case. The actual determination of the lease period shall be made on the basis of the characteristics and size of the operations requiring use of the land. Article 64 concerns the right of foreign individuals and their organizations conducting lawful activities to lease or receive concessions of land from the State. The period of land lease or concession to foreign individuals who invest in the Lao PDR shall also be based on the characteristics of the intended project but shall not exceed fifty years, with the exception of SEZ developments, which may be used for a period seventy-five years. The Law also obliges individuals and organizations to ‘protect the land to ensure that it is in a good condition’ and states that land use shall not have a negative impact in the natural or social environment.

Decree on Land Concessions (2009): The *Decree of Land Concessions* categorized land lease or concessions into short lease periods for living and commercial use of less than five years, medium lease periods for construction, service, tourism or sports use of over five years, and long lease periods for investments in infrastructure, industry, forestry, mining and other areas of use for more than 15 years. An investor must submit an economic and technical feasibility study, an ESIA report and the business license to the NLMA at either the central or provincial level. The Authority shall exercise their rights to either issue or refuse the concession. If one government authority wants a concession for use of land that is currently under the control of another authority, the NLMA has reported that the authority wanting the concession must send a proposal to the NLMA. After reviewing the proposal, the NLMA will hold mediation between the proposer and the current holder of the concession. They will try to reach an agreement which, if agreed, will most likely result in the proposing authority having to pay some fee for the concession.

Law on Minerals (2008) and Law on Mining (1997): According to Article 31 of the *Law on Minerals*, an application for investment in the mining sector shall be submitted in accordance with the *Law on Enterprise*. The Law categorizes investments as small, medium or large-scale, and an investor wishing to invest in a large-scale activity must seek approval from the Committee for the Investigation and Supervision of Large-scale Investments (appointed by the GoL and comprising the Minister of Energy and Mines, the Vice Provincial Governor and the

representatives of the concerned sectors).⁶⁶ According to MEM, the Committee shall not be formed nor authorized to give their approval or oversee the investment until the documents are passed through and approved by MEM, MPI and finally, the National Assembly. Article 35 states that the investor is required to be technically experienced in the field of minerals, must have the concession to explore and mine the area, and an ESIA report. After receiving approval, the investor is obliged to adhere to the ESIA report. The Law also imposes upon the investor the responsibility to create an environmental protection and restoration plan and adhere to this, so as to avoid any negative impacts. The investor shall be wholly responsible for any damage he or she does cause. The investor is also obliged to contribute to the fund for environmental protection. With regards to exploration, Article 23 of the Law states that persons or organizations intending to conduct mining operations shall apply for licenses to conduct mineral prospecting and data gathering. When information is sufficient, exploration shall be authorized by the GoL. If there is an intention to conduct exploitation, feasibility studies and an EIA must be undertaken simultaneously for grant of a Concession. Regarding operations, the feasibility study for obtaining a license to conduct mining operations shall include the plans and processes for mineral exploitation and the socio-economic effectiveness of mineral exploitation.

Agriculture Law (1998): The *Law on Agriculture* states that all individuals and organizations intending to use land for agricultural production must seek approval from the State in accordance with Chapter 2 of the Land Law, who may also grant a lease or concession of land for such use. Article 46 of the Agriculture Law refers to investment in agricultural activities such as ‘investment in cultivation, animal husbandry and fishery to undertake agricultural production or agricultural business’. The law states that the Ministry of Agriculture and Forestry (MAF) shall be responsible for agricultural investment activities and ‘cooperate with foreign parties in agricultural development’⁶⁷, determining the scale of production and business in coordination with the CPMI.⁶⁸ Regarding environmental protection, Article 6 imposes the obligation upon individuals and organizations undertaking agricultural production to protect the environment.

The Management of Fertilizers Regulation (1503/MAF 2000): There is little under this regulation regarding investment approval processes; however it does refer to requirement of all persons engaged in the production, sale, import and export of fertilizers to apply for registration of the fertilizer. In particular, Article 12 states that the applicant for registration of fertilizer must provide information, including but not limited to the ingredients, nutrients contained, place of production, analysis method, report of analysis, guidelines for use and a sample of the product. Anyone wishing to produce, sell, import or export fertilizers must also

⁶⁶ Article 48, Law on Minerals (2008).

⁶⁷ Article 70, Law on Agriculture (1998).

⁶⁸ As this is inconsistent with the committees referred to in the LIP 2009, we can assume that MAF shall collaborate with either the Committees of the P&I or the I&T sectors, whether at the central or provincial level.

have a license.⁶⁹ This person must be the owner of the business, have an office or residence in Lao PDR and a place for production or sale. Anyone possessing such license shall display it publicly and ensure that each time the fertilizer is produced that it will be subject to analysis before public distribution.⁷⁰ According to Article 6 of the Regulation, persons shall be prohibited from the sale, possession, import or export of fertilizers that are counterfeit, unregistered or suspended, do not meet regulation standards and are considered to be a toxic combination.

Regulation on the Use of Insecticides (1578/MAF 2000): This regulation states that anyone wishing to invest in the insecticide industry must submit an application for investment in accordance with the *Law on Enterprise*. According to Article 6, any person wishing to import, export or sell the pesticide must inform the relevant plantation sector three days prior to the import or export and twenty days prior to the sale of the pesticide. Pesticides for the purpose of import, export, sale and production must also be registered. Those who sell insecticides are also responsible for ensuring that safety measures are upheld and any risks to humans, animals and the environment are reduced.⁷¹ The seller shall be held responsible if he or she fails to do so.⁷² Please see Annex 4 for lists of allowed and prohibited fertilizers and pesticides in Lao PDR.

Law on Forestry (2007): This law defines various 'Forest Categories', within which only certain activities may be conducted. In relation to the utilization of forest or forest products for business operations, Article 43 defines distinct uses, including the use of forest for tourism, recreational sites, and logging and harvesting forest or forest products for commercial purposes, and specifies which 'Forest Category' each 'use' may be conducted within. According to Article 45, an investor wishing to engage in 'business operations in the forest' must seek approval from the Forest sector and register the enterprise in accordance with the *Law on Enterprise*. As per Article 39, all persons or organizations utilizing forests for business purposes 'shall avoid causing any negative impacts to forest and forest production areas, nature, the environment and society'. Chapter Four on the Law of Forestry also considers the utilization of forestland for business operations in relation to degraded forestland where forests cannot be naturally generated and barren forestland, which are so designated.⁷³

Water and Water Resources Law (1996): The GoL is responsible for the prevention of adverse impacts from water and all acts that cause the depletion of water.⁷⁴ Water and water resources must be managed and used according to centralized, comprehensive and integrated

⁶⁹ Article 23, Management of Fertilizers Regulation.

⁷⁰ Article 29, Management of Fertilizers Regulation (1503/MAF 2000).

⁷¹ Article 9, Regulation on the Use of Insecticides (1578/MAF 2000).

⁷² Article 9, Regulation on the Use of Insecticides (1578/MAF 2000).

⁷³ Article 69, Law on Forestry (2007).

⁷⁴ Article 5, Environmental Protection Law (1999).

management principles and according to the 'allocation plan'⁷⁵, which gives individuals, legal entities and organizations the right to use water and water resources.⁷⁶ The Law states that there are three levels of right to water use, 'small-scale', 'medium-scale use' and 'large-scale use', but only medium and large-scale use of water requires approval, registration and/or a contract⁷⁷. The Law does not specifically state where and from whom the investor must seek approval and registration; however according to WREA, they are currently in the process of drafting new legislation which will address this issue. If a contract is required, the investor must enter into contract with the sector to which the investment relates. For example, if one wishes to invest in a large-scale water usage investment such as building a dam, the investor must firstly contact the MPI and submit their application for investment. The MPI will then contact the Department of Electricity (of the Ministry of Energy and Mines, MEM) for consideration and approval and finally, to the WREA for their recommendation. Large-scale use must also be accompanied by a feasibility study, an ESIA, and detailed measures to deal with the impacts. Article 22 goes on to say that water source development activities must comply with 'socio – economic and environmental development plans, the master plan, periodic development plans of each sector, and the construction plan for each approved project'. It must also ensure the preservation of water and the environment and must prevent adverse impact to the environment.

National Policy on Environmental and Social Sustainability of the Hydropower Sector (2006):

This Policy acknowledges that hydropower development must be sustainable, if its development has potential to deliver lasting benefits to Lao PDR. The regulations set out a number of obligations upon investors. All large hydropower projects (with an installed capacity of over 50MW or inundating more than 10,000 hectares of land) must produce a full EIA report and EMMP in accordance with Lao laws and regulations. The EIA will include a comprehensive risk analysis over the entire life-span of the project, an analysis of alternatives for project structure and location, including the no-project alternative, lessons learned from previous projects and a sub-basin cumulative impact analysis. The EMMP will include a strategy for avoiding or mitigating impacts and risks, as well as cost estimates, sources of funding and an implementation schedule. This strategy, according to the MEM, shall be overseen by WREA. All reports will be subject to public disclosure.

⁷⁵ Article 6, Environmental Protection Law (1999).

⁷⁶ Article 18, Environmental Protection Law (1999).

⁷⁷ Large scale water use is defined at Article 17 as the use of water and water resources for the purposes of ' (a) constructing medium and large-scale reservoirs for the purpose of irrigation, consumption and use, and to produce electrical power; (b) constructing buildings or installing plants, factories, equipment or large scale machinery, within the water source area, or close to or surrounding the water source area; and (c) the use of water and water resources in large volumes in the field of industrial plant production'.

3.2. Key actors in investment approval and management in Savannakhet Province

This section focuses on examining the capacities of agencies related directly to investments, including the Savannakhet PDPI, WREO, PLMO and other provincial departments engaged in investment approval and management.

Provincial Department of Planning and Investment (PDPI). PDPI is the key department involved in investment approval and management. The department coordinates the investment approval and management process. Based on its role and function, the department is divided into six divisions, including divisions for administration, investment management, planning, evaluation, statistics and international cooperation. The department has a coordination network that reaches to the district level and a total of about 83 staff members. For seven of them, their highest level of educational attainment is a master's degree, 14 of them have completed a bachelor's degree, 17 have completed high school, and the remaining 45 have attended vocational school. About 33 of them work at the provincial level while the remaining 50 work in 15 districts of the province. On average, three or four persons work in each district. The IPD staff at the provincial level take overall responsibility for all work related to planning and investment promotion for the whole province. The IPD staff engaged at district level are responsible for planning and investment specifically in their district. Work related to planning and investment includes drafting socio-economic development plans, monitoring and evaluating the implementation of socio-economic development plans, facilitation of investment and ODA, and collecting statistical data related to socio-economic development.

Most of the PDPI staff have an educational background in economics, management, statistics, and English. Considering its personnel resources and capacity, the Savannakhet PDPI has a relatively large and well trained staff in comparison with other departments. However, according to focus group discussions during the study, the department still needs more personnel resources, both quantitatively and qualitatively, especially at the district level. Only three or four staff are engaged in each district. They are assigned to do everything related to planning and investment, including drafting socio-economic development plans for the whole district, coordinating with several agencies at district, provincial and central level, collecting and providing statistical data, assisting provincial and central officers in monitoring and evaluating investment projects, and so on. This amount of work is difficult to do with only three or four people. According to the focus group discussions, each district needs at least 6 people. In addition, the quality of human resources needs improvement, especially their IT skills, English skills, knowledge on statistics, and understanding of planning and management.

In addition, the focus group mentioned that the department does not have enough equipment for investment management and monitoring, including computers, vehicles, office supplies, etc. Most importantly, the focus group mentioned that the department has no budget for regular monitoring, controlling and evaluating the investment projects that are already approved.

Consequently, it is difficult for them to determine what the investment's effects at the local level are and to know how to improve their investment management system.

Provincial Water Resources and Environment Office (WREO). This is another important agency in the investment approval and management process, especially with regards to the management of social and environmental impacts. The office is obligated to review and/or conduct social and environmental impacts assessments and to issue ECCs.⁷⁸ Without an ECC issued by WREA (central or provincial), no investment project can be legally approved. Therefore, WREA and WREOs take a deciding position in the investment approval and management process. However, the provincial office was just established in 2007 and still has a limited capacity. Currently, the office is only able to conduct initial environmental examinations (IEE), which are useable only for small scale investment projects that do not have high social and environmental risks. The WREA at central level still takes responsibility for reviewing/conducting ESIA's for large scale investment projects, which have high social and environmental risks.

Currently, the Savannakhet WREO has a total of only 23 staff: two have completed master's degree; five have completed their bachelor's degree; eight have an education background at high school level; and the remaining eight have completed vocational school. Many of these officers have an education background in areas unrelated to environmental issues such as such English language, literature, etc. Some have an education background in areas related to the environment such as forestry, biology, meteorology, etc. However, none of them have completed courses in environmental studies or could be considered environmental experts. To fulfill the role and function mentioned above, the office needs to improve its personnel resources significantly, both qualitatively and quantitatively.

In addition, WREO has many limitations in its coordination network, equipment and budget. In particular, the focus group discussion noted that the office has no budget for regular monitoring, observing and controlling social and environmental impacts of approved investment projects. The focus group mentioned that, until recently, environmental investigations are usually undertaken in serious cases only (meaning only if serious complaints are received). Regular monitoring and controlling is not possible because of WREO's budget and personnel capacity limitations.

Provincial Land Management Office (PLMO). PLMO was newly established in 2007 when a division was made in the provincial Department of Finance. The office is responsible for land management at the provincial level. In cooperation with other departments, it is responsible mainly for land use planning, allocation (agriculture land, mining zone, industrial zone,

⁷⁸ WREA is fully responsible for social and environmental impacts of investment projects. Therefore, it is allowed to conduct ESIA's by itself or to review ESIA's drafted by investors or by consultants.

residential areas, etc.), land titling and collecting land fees and taxes. Under the structure determined by the National Land Management Authority (NLMA), the relevant line sectors are tasked to allocate land/resources in accordance with their mandate. For example, MAF, and at the provincial level, PAFOs, is obligated to allocate agricultural land and forestry areas; the PDIC is obliged to allocate industrial zones, border trade areas, and so on.

Currently, the PLMO has a total of 325 staff.⁷⁹ Of these staff, two have completed a master's degree, seven have a bachelor's degree, 24 have a high school level education, and 64 of have attended vocational schools. The biggest share, 228 people, have completed only upper secondary school and are not considered government officers. Instead, they have an employment contract with the department and get their salary from the department, but not from government budget (as allocated by the Ministry of Finance). According to the focus group discussion, the Savannakhet PLMO should have a sufficient number of staff. However, the quality of the personnel needs improvement. Most are young and have an education background in areas that are unrelated to land management. In addition, they do not have sufficient experience in land allocation and management. Most of them are financial staff that are responsible for collecting land fees and taxes for the government. In addition, a lack of budget and limited equipment (including vehicles, computers, GPS units, etc) are other constraints for PMO, the same as for PDPI and WREO as mentioned above.

Due to the new establishment and capacity constraints of the PLMO, the land allocation in Savannakhet province is just starting and is progressing slowly. Currently, the PLMO has only completed basic allocation of agricultural, forest, protection, residential and industrial land in 41 villages in Phin District as a pilot project. Other line departments are then responsible for more detailed allocation, such as determining the categories of various forestland. The rest of the province has not yet carried out land-forest allocation

Other departments. Other departments are involved in the investment approval and management process, depending on the investment project concerned. For example, the PAFO is a key actor in approving and managing investment projects in the agriculture and forestry sector. The PDIC is a key actor in approving and managing investment projects in the industry and commerce sector. The provincial Department for Electricity and Mining (PDEM) plays key role in approving and managing investment projects in electricity and mining sector, and so on.

Based on findings from focus group discussions during the study, the departments all share similar capacity limitations and constraints, including (1) personnel resources, especially a lack of highly qualified staff with relevant experience; (2) necessary equipment and (3) most importantly, a lack of budget, particularly for regular monitoring, controlling and evaluating activities.

⁷⁹ The PLMO needs and retains a relatively large staff because it has to work at community level to collect land taxes and concession fees for the government.

3.3. Investment approval and management procedures

The central government and local authorities (provincial authorities) share responsibility for investment approval and management, depending on the size and scope of the investments in question. The following section sets out the procedures for the submission of investment proposals, their consideration, and their approval or rejection. This will focus on the implementation of procedures at the provincial level, and Savannakhet in particular.

The exact conditions determining whether an application is to be submitted to the central or provincial level is still yet to be set out by the Draft Decree 2009. However, these determinations will most likely be similar to those of the *Investment Decree 2005*. This specifies that the local/provincial level shall be responsible for approving investment activities that are⁸⁰:

- Undertaken in the Capital City, Savannakhet, Champassak or Luang Prabang provinces, falling within the list of what is called the ‘first category’ (meaning activities open to foreign investment and contained within the promotion list which are prescribed to accept investment)⁸¹ and having an investment value less than US\$5,000,000; or
- Undertaken outside of these four provinces aforementioned, also falling within the first category, but with an investment value of less than US\$3,000,000.
- Concessions that seek to use more than 100 ha of land but less than 1000 ha of land

The central level shall be responsible for decisions regarding the approval of investment projects that are:

- Of the first, second or third categories⁸² that have an investment value no more than USD20,000,000).

Applications for activities above this threshold (and that fall within the third category) must be submitted to the GoL for approval.⁸³ Both the Draft Decree 2009 and the LIP 2009 state that for

⁸⁰ In addition to the Investment Decree 2005, the Agreement Number 0509/MPI on Role and Function of IPD, dated on June 11, 2008, states that the central IPD is responsible to process and approve investment project having investment capital of exceeding USD 10 million. However, Savannakhet IPD confirms that Savannakhet Province is allowed to process and approve investment projects having investment capital equal to or less than USD 5 million. This contradiction between the documents is confusing and further impairs cooperation between central and provincial IPDs.

⁸¹ Article 23, Decree for the Implementation of the Law on the Promotion of Foreign Investment (2005). In addition to the first category, there are also second and third categories of ‘Activities Open to Investment’. The second category is defined at Article 24 as those investment activities which the GoL is open to accept but subject to conditions based on the consideration of investment approval and the special characteristics, regulations and laws of the concerned sector. The third category is defined at Article 25 as those activities requiring a grant of concession rights from the GoL, whether for general, mineral resource or energy resource activities.

⁸² For example, projects that involve investment in the electricity, mining and telecommunication sectors, which are considered strategic sectors and reserved for public investment

the foreign investor investing in general activities, the registered capital of the investment project must not exceed one billion kip.⁸⁴

The central and provincial authorities have the same mechanism and procedures for considering and approving investment projects. At the central level, the Committee for Promoting and Managing Investment (CPMI) is the main investment body, coordinated by MPI at the central level. A version of this committee is also formed at the provincial level. The PDIC is coordinator of the provincial CPMI (hereafter PCPMI⁸⁵) the Vice-Governor, who is responsible for economic development, is the chairman and all provincial departments delegate members to the committee.⁸⁶

Investors, domestic or foreign, wanting to invest in Lao PDR are required to fill out an “investment permit form” and submit it to CPMI or PCPMI, depending on the size and sector of the proposed project. The application is purchased at the MPI in Vientiane and in PDPIs. After the investor has submitted an application to MPI or to PDPI, the ministry or department disseminates the application to all ministries or provincial departments that are members of CPMI or PCPMI for their consideration. Normally, the CPMI or PCPMI organizes weekly consultation meetings to discuss and decide whether or not to support the proposed project. If necessary, the CPMI or PCPMI can also organize irregular meetings. All members of CPMI or PCPMI are invited to the meeting. The committee coordinator, MPI or PDPI, summarizes the outcome of the meeting for reporting and in order to seek approval from GoL or the provincial government in the event that CPMI or PCPMI supports the proposed project. In the event that CPMI or PCPMI do not agree with the project, MPI or PDPI will return the application and meeting notes to the investor, should they be able to improve their project proposal for further consideration.

The investment approval process usually has two different phases. The first phase is approval for investigation and more detailed project design, while the second phase is approval for project implementation. According to focus group discussions in Savannakhet Province, the atmosphere in each phase is very different. For approval of investigation and approval to begin detailed project design, the consideration in the meeting is not very serious. The PCPMI do not require project owner to submit a detailed investment plan or a formal environmental certificate issued by WREO at this stage. However, in the second phase of approval for project implementation, the meeting atmosphere is more serious. The project developer is required to

⁸³ The Decree does not state which department or office of the GoL can provide this approval.

⁸⁴ Article 17, Law on Investment Promotion (2009), reiterated at Article 32 of the Draft Decree on the Law on Investment Promotion (2009).

⁸⁵ The PCPMI has same structure as CPMI at central level. All provincial departments have their representative in the committee, including PDPI, PDIC, WREO, PAFO, PLMO, etc.

⁸⁶ There is no CPMI at the district level. Districts are not mandated to approve and manage investment projects; they only manage small scale household investments which do not need complicated committee approval processes.

submit a detailed investment plan, including a formal ECC.⁸⁷ (Annex 2 shows procedures for obtaining an ECC step-by-step).

The LIP 2009 also provides a general timeline for the consideration of applications. Article 18 states that the procedures and timeframe for considering enterprise registration relating to General Activities (that are not listed as controlled businesses, i.e. on the negative list), the business license shall be issued within ten working days. In the case of controlled businesses, the enterprise registration certificate shall be issued within thirteen working days, as defined in the Enterprise Law. If an investor wishes to expand an existing business, consideration is expected to take less time than for a new investment.

A number of procedures also apply to applications for concessions. 'Concession' refers to when the State allows use of the land and/or resource use rights and other rights of the State for the purpose of undertaking business operations. Land use rights may also be afforded to foreign (non-concession) investments above USD500,000 for the duration of the investment activity, as an investment incentive.⁸⁸ All Concession Activities in Lao PDR require a Concession License, which includes the Business Registration Certificate, the Investment Authorization, the Promotion Policy, the Tax Registration Certificate and the authorization to undertake the activities from the concerned sector. According to Article 16 of the Draft Investment Decree, the Committee Planning and Investment for assessing concessions comprises of representatives from the Planning and Investment sector, Energy and Mining Sector, Finance Sector, Industry and Commerce Sector, Water, Resources and Environment sector, the Land sector, Agriculture and Forestry sector, Education sector and other sectors in which investors may wish to invest. The Chairman at the central level shall be the Minister of the MPI, and the Chairman of the Provincial Committee will be appointed by the central Chairman (i.e. the Minister of the MPI). Generally, the Chairman of the Provincial Committee shall be the Governor.

For Concession Activities, an investor shall prepare the documents and submit the application to the OSS of MPI at the correct level, for screening by the committee, before being submitted to the central government or to the provincial government for consideration.⁸⁹ According to the LIP 2009 and the Draft Decree, an application must also be accompanied by an economic and technical feasibility report, an ESIA, and a list of vehicles, equipment and raw materials used in production.⁹⁰ However, it should be noted that the MoU between an investor and IPD also allows the investor to carry out the feasibility study and ESIA, which are then reviewed and renegotiated before actual implementation of the investment. As is the situation for general

⁸⁷ Focus group discussion.

⁸⁸ Article 58, Law on Investment Promotion (2009).

⁸⁹ Article 21, Law on Investment Promotion (2009).

⁹⁰ Article 23, Law on Investment Promotion (2009), reiterated in Article 34, Draft Decree on the Law on Investment Promotion (2009).

business activities, the Draft Decree 2009 is still silent as to which level applications for concession investments are to be filed at and thus considered. However, these will most likely be similar those specified in the Decree 2005 (100-1,000 ha at the provincial level; 1,000-10,000 ha at the national level; more than 10,000 ha requires scrutiny by the National Assembly).

Applications for concession investments are decided upon on 'a case-by-case basis by using different methods, such as comparison, bidding or evaluation'.⁹¹ The Investment Committee of the P&I sector will first look to whether or not the concession activity is on the list of promoted and non-promoted concession activities (which is still to be finalized within the *Draft Decree 2009*). If the application meets all requirements and the Committee decides in the affirmative, they shall begin negotiating and drafting the initial Agreement or Memorandum of Understanding (MoU), in conjunction with other line ministries. The outcomes of the negotiation shall be taken to the weekly meeting of the P&I sector, which is organized by the department's OSS, for further consideration, followed by the submission of the proposal to the central government or provincial government, which will make the ultimate decision as to the issuance of the Concession license. When the investment committee cannot reach a consensus, they will seek further comment from the concerned sector.

At the time of submitting the proposals to the Government or to the provincial administrative organization for a decision, the investor is to deposit a project guaranty fund in accordance with the regulation and based on the type and size of the investment. This guaranty fund shall be deposited to the account of the National Treasury and shall be refunded after the project has commenced operation.⁹² After the approval from the GoL, an official notice must be sent to the investor within two working days from the approval requesting that the investor also sign the MoU. The investor must respond within ten working days from the date of receiving the request and failing to do so shall result in the concession being terminated. The same will occur if the investor does respond but fails to finalize the negotiation or sign the MoU within thirty working days.⁹³ Upon receiving the Concession License, the investor must transfer the registered capital into a commercial bank registered in Lao PDR and obtain the bank transfer as proof of the deposit.⁹⁴ The investor may then begin undertaking the proposed business activities within ninety days of having received the license.⁹⁵ Failing to do so shall result in the issuance of a written notification of warning by the P&I sector. If the investor has still not commenced the proposed activities within six days of having received the warning, the

⁹¹ Article 22, Law on Investment Promotion (2009).

⁹² Article 23, Law on Investment Promotion (2009).

⁹³ Article 37, Draft Decree on the Law on Investment Promotion (2009).

⁹⁴ Article 38, Draft Decree on the Law on Investment Promotion (2009).

⁹⁵ Article 25, Law on Investment Promotion (2009), reiterated in Article 39 of the Draft Decree on the Law on Investment Promotion (2009).

concession license shall be withdrawn and the guaranty fund shall become property of the State.⁹⁶

As shown above, Lao PDR has a relatively comprehensive investment management framework, involving numerous, interacting laws and regulations as well as government departments and agencies. During this study and a concurrent assessment of the capacity of the Investment Promotion Department at the central level, several key issues regarding the function of the investment management system were evident:

- There are still a number of gaps in the regulatory framework that should provide the basis for MPI and other departments at the central and local levels to successfully promote and manage investments. The findings from case studies in Savannakhet and Saravan provinces indicate that the laws and regulations still have some gaps and weak points, which are liable to be misused. For example, clearing “primary” and “secondary” forest for agriculture production purposes is forbidden, especially for plantations. However, the lack of a concrete definition what exactly “secondary” or “degraded” forests are allows clearing of forest to continue.⁹⁷ Furthermore, during the focus group discussions in IPD and PDPI, the team observed that many IPD staff do not understand the regulations and laws very well, and confusion remains regarding the division of labour between the central and provincial levels.
- Coordination between the many agencies that play a formal part in investment approval and management at both the central and local levels is difficult. This is partly due to the fact that all the departments who participated in this study have insufficient capacity, in terms of staff and budget, to carry out their mandated tasks. In addition, the short timeframes indicated under the new law are aimed at easing the requirements for setting up new businesses in Lao PDR, but also place a new onus on Investment Committees, Investment and Planning officials, and the other departments who must comment on investment proposals.
- As noted above, all the departments consulted during this study have shortfalls in capacity. As well as insufficient staff numbers, the staff they have often have insufficient experience or expertise, particularly in technical areas such as the assessment of social and environment impacts. The departments charged with monitoring and evaluation of investment projects also lack the budget and equipment necessary to meet this obligation.

⁹⁶ Article 25, Law on Investment Promotion (2009).

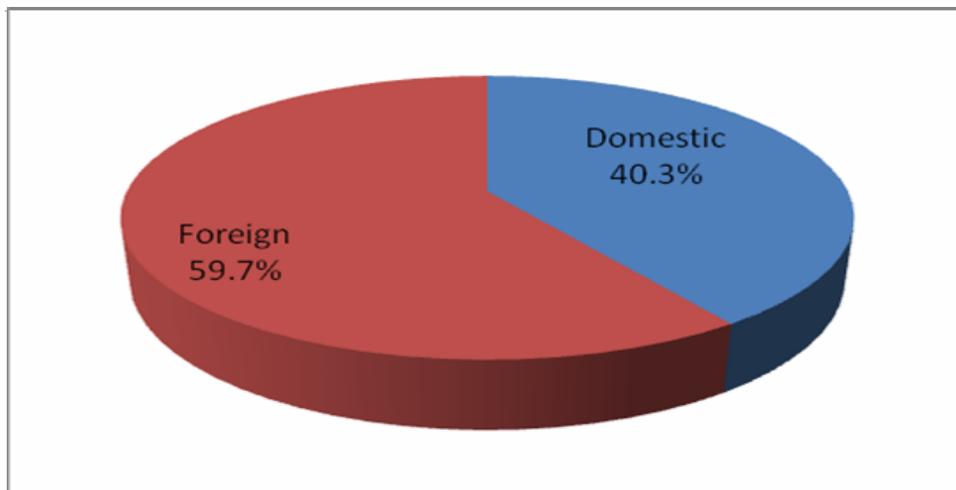
⁹⁷ Focus group discussion during the case studies in Savannakhet and Saravan provinces indicated that the gaps in the *Forestry Law* make it widely misused. Large forest areas (including primary and secondary forest) have been converted into sugar cane and rubber plantations.

Based on the findings outlined above, the Savannakhet Province investment management system needs to be improved in order to effectively approve, manage and monitor investments so as to limit negative social and environmental impacts and ensure sustainable development.

3.4. Data on investments and concessions in Savannakhet Province

Due to its geographical location, landscape and infrastructure development, Savannakhet Province has attracted the most investment in Lao PDR of all the provinces except for Vientiane Capital. During the period from 2004-08, the total, accumulated investment flow into Savannakhet Province was just over USD 2.123 billion, representing about 21.2% of total investment in the whole of Lao PDR during the same period.⁹⁸ Due to constraints in the monitoring system, the details on the amount of domestic investment, especially the small-scale investment of private households, are not available (because these investments are not registered as companies and therefore do not need investment permits).⁹⁹ However, according to the provinces draft Five Year Plan, 2011-2015, in fiscal year 2007-2008 domestic investment in Savannakhet Province accounts for 40.7% of all investment, and foreign investment for 59.7%. Figures 5 and 6 below shows investment shares in Savannakhet Province in 2007-2008. Annex 5 also provides an overview of some of the key investment projects in the Province.

Figure 5: Share of domestic and foreign investment in Savannakhet Province, 2007-2008

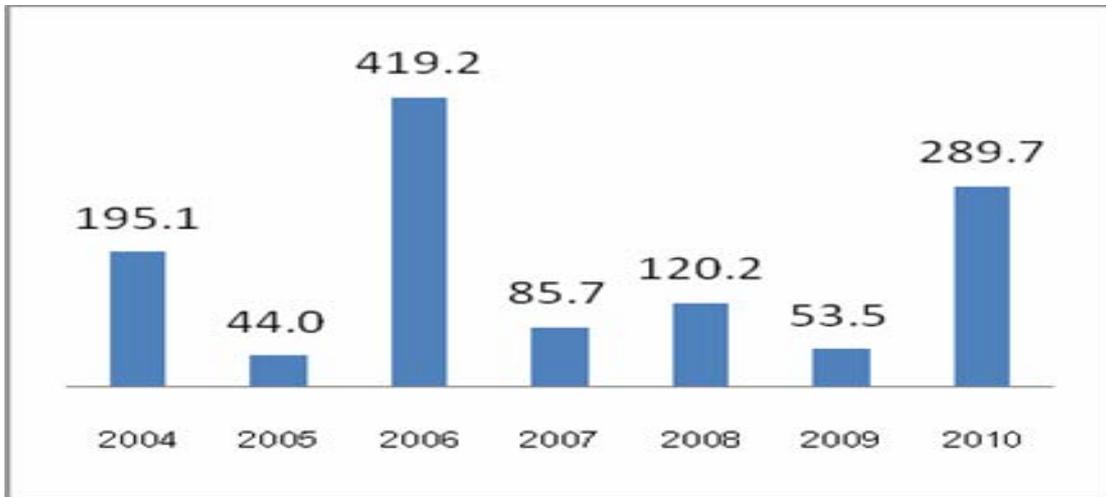


Source: Estimated by NERI based on data provided by PDPI

⁹⁸ According to statistical data provided by PDPI.

⁹⁹ Though Saravan provincial DPI monitors household investments, Savannakhet provincial DPI does not.

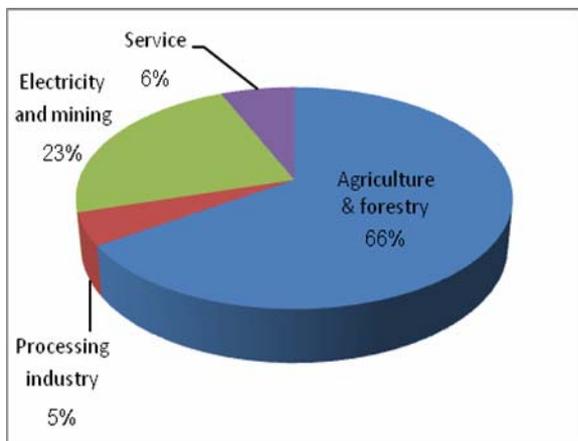
Figure 6: Foreign investment, 2004-10 (USD-million)



Source: Savannakhet PDPI

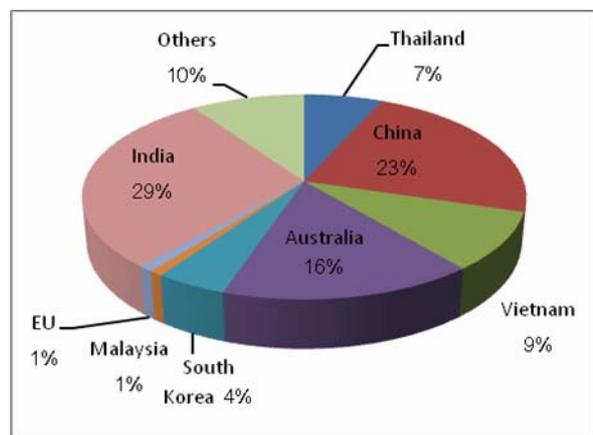
The figures below also provide more detail on foreign investment in the province by sectors, years and sources.

Figure 7: FDI in Savannakhet Province by sector, 2004-10



Source: Estimated by NERI based on data provided by PDPI

Figure 8: FDI in Savannakhet Province by countries of origin, 2004-10



Source: Estimated by NERI based on data provided by PDPI

The accumulated FDI in Savannakhet Province from 2004-2010 was over USD 1.207 billion, corresponding to 8% of the total approved FDI in Lao PDR during the same period. About 66% of the investment is concentrated in the agriculture and forestry sector; about 23% is investment in the mining and electricity sector; about 6% of investment is in the service sector,

including tourism, trade, transportation, etc; and the remaining 5% of the investment is concentrated in the processing industry. Based on investment amounts, the biggest share of the investment comes from India (due to a large investment by the Birla-Lao Company in plantations). From 2004 to 2010, the total investment flow from India is about USD 350.1 million, representing about 29% of total foreign investment in Savannakhet Province during the same period. This is followed by investment flows from China, which were over USD 277.7 million in 2004-2010, contributing to around 23% of the province's FDI. Investment from Australia,¹⁰⁰ Vietnam and Thailand contributes 16, 9 and 7% respectively to total FDI flows during the same period.

In 2006, Savannakhet Province received especially high FDI flows. This is associated with the opening of the Second Lao-Thai Friendship Bridge in 2007. As a result, big companies like Birla-Lao, Savan Sugar Factory, and Mitr Lao Sugar Factory, started to expand their production into Savannakhet Province. FDI of over USD 419.2 million was approved in 2006.

There is little information available regarding the impacts of these investments beyond the total amounts, sources, destination sectors and the macro-economic data provided above. This is partly due to limitations in the monitoring system for investments, as well as the lack of publicly available information on individual investment projects. Some projects, such as the Sepon Copper and Gold Mine and other large foreign-invested projects, conduct monitoring activities and have publicly available annual reports and sustainability reports. However, this is more the exception than the rule. It is therefore difficult to form an accurate picture of the direct and quantitative impacts associated with investments in the province, such as the number of jobs created, the demand for natural resources, or biodiversity loss. However, to summarize the information above, the substantial increase in investment flows into the province has occurred at the same time as a period of rapid economic growth, improved socio-economic development indicators, increased migration, losses in forest cover and quality, a shift away from traditional subsistence agriculture, and growing concerns in communities about the loss of land and other natural resources (including water resources).

4. Agricultural production in Savannakhet Province

4.1. Overview

Agricultural production has the largest role in the economy and local livelihoods of people in Savannakhet Province. In fiscal year 2009-2010, the agriculture and forestry sector contributed 49.04% to the province's total production value and employed more 371,800 people,

¹⁰⁰ Please note that the Sepon mine is still recorded as investment from Australia in the provincial investment statistics, despite purchase of the operation by Chinese company MMG.

representing about 70% of the total labor force. The main agricultural products of the province are rice, maize, vegetables and industrial crops like sugarcane, rubber, and acacia and eucalyptus.¹⁰¹ Due to large FDI flows, agricultural production modes in Savannakhet Province have changed significantly during this last decade. Both traditional and industrial agricultural production occur in the province, as outlined below.

4.1.1. Traditional agricultural production

Traditional agricultural production is the main economic activity for the majority of people in Savannakhet Province, and as such still plays a huge role in contributing to livelihoods and food security for communities. Although this household-level, subsistence agriculture does not use advanced techniques and technology, it is important for producing food crops, including rice, maize, vegetables, legumes, and so on. This kind of agricultural production is not usually highly productive and is highly susceptible to changes in weather patterns, water levels and quality, and environment.

Savannakhet Province has a total rice production area of 185,674 ha, including 164,967 ha of wet rice production area, 20,206 ha of irrigated rice production area and about 500 ha of upland rice production. The productivity of wet rice production is estimated to be 3.51 tons/ha; productivity of irrigated rice production is about 4.7 tons/ha; the productivity of upland rice production is estimated to be 1.5 tons/ha. In addition, the whole province has a food production area of about 18,930 ha. Table 8 below provides data on crops and productivity in 2009.

Table 8: Production of rice and other crops in Savannakhet Province, 2009

Description	Area (ha)	Productivity (t/ha)	Total production (t)
Area of rice fields	185,674	3.6	674,755.9
<i>Area of in-season rice fields</i>	<i>164,968</i>	<i>3.51</i>	<i>579037.68</i>
<i>Area of double crop rice fields</i>	<i>20,206</i>	<i>4.7</i>	<i>94968.2</i>
<i>Upland rice plantation area</i>	<i>500</i>	<i>1.5</i>	<i>750</i>
Other crops	18,930.6	5.3	100,486
<i>Wheat</i>	<i>3,773.4</i>	<i>3.16</i>	<i>11,924</i>
<i>Peanuts</i>	<i>1,250.0</i>	<i>2.04</i>	<i>2,550</i>
<i>Yellow beans</i>	<i>4.4</i>	<i>1.14</i>	<i>5</i>
<i>Green beans</i>	<i>9.1</i>	<i>1.1</i>	<i>10</i>
<i>Beans</i>	<i>1,110.5</i>	<i>3.04</i>	<i>3,376</i>
<i>Watermelon</i>	<i>2,112.1</i>	<i>12.76</i>	<i>26,951</i>
<i>Cucumber</i>	<i>1,487.2</i>	<i>7.2</i>	<i>10,708</i>
<i>Chili</i>	<i>1,795.2</i>	<i>1.45</i>	<i>2,603</i>
<i>Eggplant</i>	<i>705.9</i>	<i>3.41</i>	<i>2,407</i>
<i>Tomato</i>	<i>248.0</i>	<i>3.54</i>	<i>878</i>
<i>Other vegetables</i>	<i>3,600.6</i>	<i>5.15</i>	<i>18,543</i>

¹⁰¹ Savannakhet PDPI. *Five Year Plan, 2011-2015* [Draft]

Garlic	470.9	5.91	2,783
Taro	2,363.2	7.51	17,748

Source: Savannakhet PAFO. 2009. Summary on Agriculture Production in 2009.

Generally, Savannakhet province is able to produce sufficient food for its own consumption, reserves and exports.

4.1.2. Industrialized agricultural production

Industrial agriculture is relatively new to Savannakhet Province, as it was only recently introduced by foreign companies, but it is expanding rapidly. This style of production is characterized by large-scale plantations that use advanced techniques and technologies, and it has a focus on exports. In Savannakhet Province, industrial agriculture is used mainly for crops like sugarcane, acacia, eucalyptus, cassava, and rubber. Currently, more than 20 foreign agricultural businesses have established an offices and operations in Savannakhet province. The companies occupy large plots of land granted through concessions. Among the key companies are:

- Birla-Lao Company - Indian, the company occupies a concession of over 41,000 ha for eucalyptus plantations;
- Mitr Lao Sugar Company - Thai, the company established a sugar factory in Xayburi District and occupies land of about 10,000 ha for sugar cane plantations;
- Savan Sugar Company - Thai, the company established a sugar factory in Phin District and occupies land of 12,000 ha for sugar cane plantations;
- Lao-Thai Hua - Vietnam, the company occupies land of about 10,000 ha by concession for rubber plantations.

Table 9 provides more detail on industrial crops and productivity.

Table 9: Area and productivity of industrial crops in Savannakhet Province, 2009

Description	Concessions (ha)	Concession length (years)	Surveyed (ha)	Successful survey (ha)	Cleared (ha)	Growing area (ha)	Productivity (t/ha)
Rubber	26,651	30-49	17,536	13,120	8.615	5,929	NA
Cassava	12,508	20-30	7,100	1,760.90	2,100	2,100	7.5
Eucalyptus	41,672	15-70	148,168	30,410	7,229.80	7,229.80	NA
Sugar Cane	22,000	30-40	25,523	13,157.90	9,983.50	9,620	56.4
Acacia	40,025	40	30,925	24,470.90	460.00	312	NA
Jatropha	100	NA	100	100	60	NA	NA

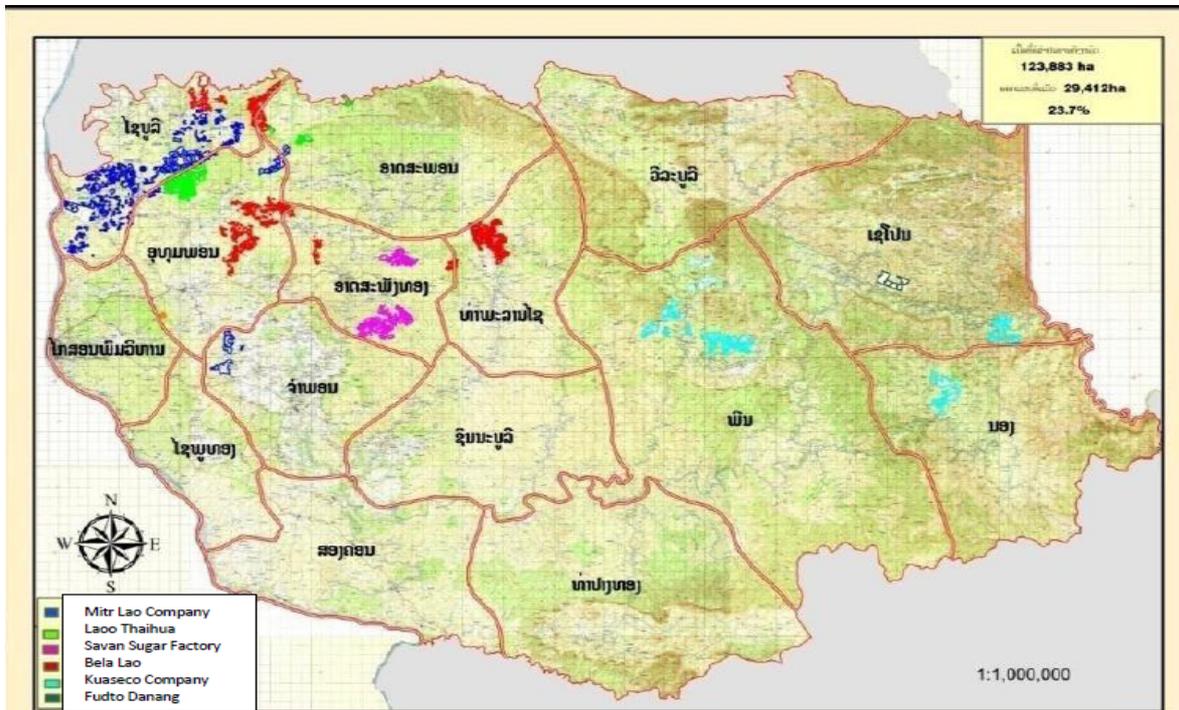
May Tiew (for charcoal)	100	NA	0	0	0	0	NA
Fruit trees	200	NA	150	NA	43	NA	NA
Coffee	100	NA	100	NA	NA	NA	NA
Total	143,356	--	229,602	83,019.7	19,884.915	25,190.6	--

Source: Estimated by NERI based on data provided by Savannakhet PAFO

Concessions are the main mode of production for industrial crops, including tree plantations, in Savannakhet Province. The table above shows that the GoL at the central level has already issued concessions for 143,356 ha of land in Savannakhet to investment companies (about 6.5% of the total provincial land area). Of this, only 83,019.7 ha have already been surveyed successfully and only 25,190.6 ha are actually planted. The remaining 57,829 ha are still in the surveying and processing phase. That means that the provincial government needs to find and secure another 61,336 ha, corresponding to over 42% of the total amount of land that has been granted to investors. This study's findings so far indicate that the process of surveying and accessing land will take a long time, and the conversion of land to plantations is likely to strongly influence the livelihoods of people in the province. The biggest share of the concession areas are located in Xayburi, Outumphone, Atsaphanthong, Palanxay and Phin districts as presented in the map below.

As noted already in this study, agriculture as an industry is growing while traditional agricultural production is shrinking. Although many people still rely on agriculture for their livelihoods, traditional patterns are being replaced with industrialized modes of production. The case study on the Mitr Lao Sugarcane plantations will further discuss some of the economic, social and environmental impacts of this shift on local communities.

Map 5: Concession areas in Savannakhet Province, 2009



Source: Provided by Savannakhet PLMO

4.2. Agricultural Land and Forest Allocation

As mentioned earlier, land use planning has not made much progress yet in Savannakhet Province. Planning and allocation at the macro-level has been hampered by the resource and budgetary constraints of the newly established PLMO. Currently, the Savannakhet PLMO has completed a pilot project on land-use planning in 41 villages in Phin District only in 2010.

Land use planning in Lao PDR is promoted by the GoL in order to achieve several objectives: encourage permanent commercial agriculture and stabilize shifting cultivation; provide incentives for good land management; and attract investment.¹⁰² After the introduction of the new economic mechanisms, the GoL embarked on land-use planning, allocation and titling programs, often using external support. In the rural areas of the country, land and forest allocation (LFA) was started in 1994 to allocate forestlands to communities and agricultural land

¹⁰² Badenoch, Nathan. 1999. *Watershed Management and Upland Development in Lao PDR: A Synthesis of Issues and Opportunities*. World Resources Institute.

to families and individuals, until 2006.¹⁰³ Badenoch¹⁰⁴ notes that LFA generally followed these steps:

- First, an agreement is reached between the villagers and the government formally delineating the village lands, as farming land, degraded land, or forest cover. Degraded land is for rehabilitation through plantations and tree crops. Forest is allocated based on the need to protect water resources and provide for non-timber forest products and other traditional uses. Villagers are required to set aside 5-10% of their land to accommodate future population growth.
- The second step is a forest inventory carried out jointly by the district officials and villagers.
- Farmers are then issued probationary 3-year certificates that are confirmed if the land is managed in accordance with the prescribed land use plans.

Although macro-level land use planning has not been carried out yet beyond that in Phin District, some progress has been made on LFA. Responding to investors needs, Savannakhet PAFO has worked ahead of the PLMO¹⁰⁵ and carried out LFA before the PLMO's macro-level planning was made. The overall plan for land and forest allocation in the province, as prepared by PAFO, is shown in Map 8 below. According to the map, most sugarcane plantations were allocated in Xayburi, Atsaphanthong and Phin districts; most rice production was allocated in Kaisone Phomevihane, Outumphone, Champhone, Xayphuthong, Songkhone and Soneburi districts. Rubber plantations were allocated in Phin and Xayburi districts. Fruit plantations were allocated in Sepon and Nong districts.

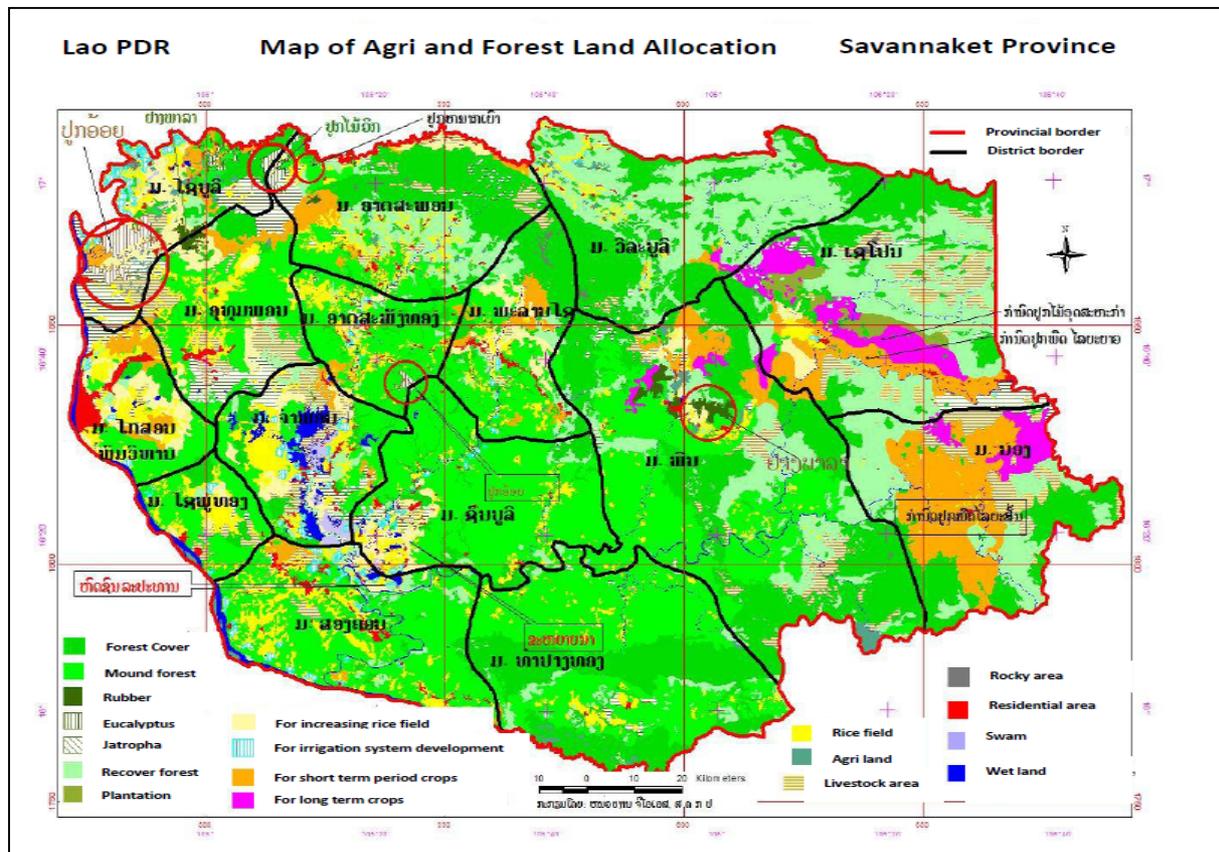
However, it is important to remark that the land allocation presented in the map below is based mainly on satellite images. Most of the allocated areas have not yet been investigated on the ground. In addition, the allocation is not yet be officially agreed upon and approved by other provincial departments. Many areas, including mining zones, residential areas, and so on, are not found on the map. Thus, the LFA seems to be only an internal and preliminary allocation by PAFO. None of the provincial departments officially accept the allocation.

¹⁰³ Mahaphonh et al. 2007. "Study on Land Conflicts and Conflict Resolution in Lao PDR". Land Policy Study No. 9, LLTP II.

¹⁰⁴ Badenoch, 1999.

¹⁰⁵ According to Lao land management regulations, PAFOs are only authorized to allocate agriculture and forestry land not to allocate land in general. In order to allocate agriculture and forestry land, PAFOs must wait for the PLMO to complete its overall planning.

Map 6: Agriculture land and forestry allocation



Source: Provided by Savannakhet PAFO.

4.3. Farmer Associations and Financial Institutes Supporting Agricultural Production

Based on information available, there are not yet any farmer associations established in Savannakhet province. The main financial institutes supporting agricultural production are:

The Agriculture Promotion Bank (APB): the APB is a state-owned enterprise (SOE). It has head quarters in Vientiane Capital and branches in each province of Lao PDR, including Savannakhet. In the province, the APB has a representative office in each district. Through subsidies from the GoL, the APB provides low interest loans (at about 7% per year) to support agricultural production. According to discussions with its branch manager in Savannakhet, the financial capacity of the bank is limited, compared with the need for credit. For example, the APB was only able to provide credits of LAK 60.08 billion for agricultural production in Savannakhet Province in 2009.

The Policy Bank (PB): PB is also an SOE, and supports government policy, especially poverty reduction. The bank has headquarters in Vientiane Capital and a branch in each province of Lao

PDR, including Savannakhet. The bank is not mandated specifically to promote agricultural production but rather to promote poverty reduction. However, because of the high poverty rates among those who work in the agriculture sector, PB often functions as an agriculture promotion bank. According to discussions with a bank manager in Savannakhet, over 70% of their money goes to supporting agriculture and agriculture-related production, including rice, vegetable and fruit plantations, livestock production, agriculture processing factories, etc. PB's Savannakhet branch has representative offices in each poor district, including Nong, Sepon, Phin and Villaburi districts. In 2009, the bank provided credit worth LAK 36.31 billion for supporting activities in Savannakhet Province. Table 10 below provides more details on the operations of both banks.

Table 10: Credit Provision of Agriculture Promotion and Policy Bank, 2006-09 (LAK-million)

Banks	2006	2007	2008	2009
Agriculture Promotion Bank	15,770	22,110	52,860	60,080
Policy Bank			18,410	36,310
Total	15,770	22,110	71,270	96,390

Source: Agriculture Promotion and Policy Banks, Savannakhet branches

According to the table above, collectively, both banks provided credits of about LAK 96.39 billion, corresponding to about USD 11.34 million, in 2009¹⁰⁶. Based on discussions with managers of both banks during the study, the amount of credit was very small in comparison with the need, meeting only about 10% of the demand for credit. Further, based on findings from focus group discussions in Don Phung, Keng Head and Na Dieng villages and discussions with the bank managers, the largest share of the credits were short term credits and were provided to domestic agricultural production companies, including companies collecting and exporting agriculture products. Only a small share of the credit was provided directly to independent farmers, due to the many constrains, especially regarding will and capacity, to develop a business plan for submitting to the bank and then paying back the money.

There are other commercial banks providing credit in Savannakhet Province, including the Development Bank, Banque Pour Le Commerce Extérieur Lao (BCEL) and Phongsavane Bank. However, these banks are purely commercial and most charge relatively high interest rates, (about 17-20%). Because small local farmers do not have high returns, it is very difficult for them to access credit.¹⁰⁷

¹⁰⁶ The amount of credit in US Dollars was calculated by using the 2009 exchange rate of 8,500 kip to 1 USD. This exchange rate was provided by the Bank of Lao PDR, Central Bank.

¹⁰⁷ Findings from case study focus group discussions in Dong Phung, Keng Head and Na Dieng villages.

In conclusion, the farmers in Savannakhet Province have very limited access to financial support for production. The number of financial institutions is limited as is their financial capacity—as a result, most charge high interest rates. The interest rates of commercial banks are too high. Low interest credit program are a useful option for further boosting agricultural production in the province.

5. Economic, Social and Environmental Impacts of Investment in Savannakhet Province: Summary of Case Studies

This section will add to the analysis of the economic, social and environmental impacts of investment in Savannakhet province presented so far, based on findings from two case studies carried out by the research team in collaboration with provincial departments in the second-half of 2010. The two case studies were selected by representatives of the provincial departments and are:

1. Mitr Lao Sugar Plantation and Factory – an investment project of the Mitr Phol Group of Thailand in several districts in Thailand, involving a 10,000 ha concession for sugarcane plantations and a sugar processing factory. This case study examined the impacts of the investment provincially and in three villages in the middle of the concession in Xayburi District.
2. Savan Vegas Casino & Hotel - an investment project of Sanum Company, with shares held by the GoL and two Lao investors, this has seen the establishment of a main casino and Hotel in Nong Deng Village, as well as a branch casino near the Mekong River in Savannakhet town. This case study examined impacts of the Casino & Hotel in the province and in three villages around the complex.

This section will summarize and analyze the main findings of these case studies. Full reports for each case study are provided at Annexes 6 and 7.

5.1. Economic impacts

Based on the findings from both case studies, the most significant economic impacts of the two investments are job creation and the provision of income generation opportunities for local people. For example, both companies studied (Mitr Lao Sugar and Savan Vegas Casino & Hotel) employ about 8,300 people combined. During the sugar harvest period, the Mitr Lao Sugar employs about 7,000 people, while about 4,200 people are employed during the growing period. In addition, the study found that large investment projects, such as the Savan Vegas Casino & Hotel, attract and stimulate investment in related sectors, including hotels,

guesthouses, restaurants, bars, shops, entertainment places, and so on. Thus, the investments create jobs and generate income for local people in indirect ways as well.

These investment projects contribute to government revenues. For example, in the period from 2007 to 2009, Mitr Lao Sugar contributed over USD 1.5 million to government revenues through the payment of concession fees and taxes. Based on available information, Savan Vegas Casino & Hotel is the second largest source of government revenue in Savannakhet Province, after the Sepon Mine. From 2008 until recently (November, 2010), the Casino & Hotel has contributed over USD 2.1 million through payments to the government for income tax, business tax and lump sum tax.¹⁰⁸ The contribution excludes the dividend, which should be 20% of the total profits made by the Casino & Hotel. However, the exact amount of the dividend paid to the GoL is not publicly available information.

The investment projects have also contributed to community development, including road development, construction and repairs of schools and clinics, and supporting sporting and cultural events. For example, since 2007, Savan Vegas has contributed over USD 920,000 to the construction of one primary school, building 2.3 kilometers of community roads, renovation of the Savannakhet sports stadium, and support for a number of traditional and cultural events in surrounding communities.¹⁰⁹ Mitr Lao Sugar has also contributed an estimated USD 100,000 for community development, including donations to the Poverty Reduction Fund and the provision of healthcare and scholarships to local people. The company has constructed infrastructure, such as roads and irrigation systems worth approximately USD 4.3 million to date.¹¹⁰

This study has already shown that, with the active contribution from investment, Savannakhet Province has experienced relatively high economic growth (about 10.5% each year on average during last five years) and rapid poverty reduction (about 1.8% a year on average during last five years) compared to national averages over the same period. Savannakhet Province now has a relatively high economic development status with GDP per capita of USD 897 in 2009, and a relatively low poverty rate of about 10%.

However, along with positive economic impacts, investment in Savannakhet Province is also associated with a number of negative impacts, partly because of an insufficient management system. These negative impacts are particularly clear in the agriculture and forestry sector. They include reducing livestock production and utilization of the NTFPs that were an important source of food and income for villagers, as well as negative effects on village water sources. Consequently, this increases household expenditure for food and drinking water. Further, the contract farming model used by Mitr Lao Sugar in Savannakhet Province has been shown to increase the debts of local farmers participating in the scheme. Consequently, local people are

¹⁰⁸ Savannakhet Provincial Department of Finance.

¹⁰⁹ According to information sheet provide by Savan Vegas Casino & Hotel.

¹¹⁰ Mitr Lao Sugar. 2010. *Company Presentation*.

unsure whether they really benefit from or suffer from the expansion of the plantation industry in their community. Finally, it is difficult for this study to comment on the extent that the increase in government revenues provided by the investments is “recycled” to the local level (e.g. in the form of improved infrastructure or services). Revenues from investment projects like these are directed to the central Ministry of Finance who prepares the centrally planned state budget, with funds then provided back to the provinces.

Table 11 below summarizes the main economic impacts of the two case studies (that could be measured quantitatively).

Table 11: Quantitative economic impacts of the two case studies

Item	Mitr Lao Sugar	Savan Vegas Casino & Hotel
Contribution to government revenues in taxes and fees (USD)	1,563,559 (2007-2009)	2,100,000 (2008-2010)
Number of Lao people employed	7000 during harvesting 4,200 during maintenance	1301 (160 Savannakhet residents; 1,141 from other provinces)
Number of foreigners employed	103	179
Contract farmers (households)	1194	NA
Investment capital in related sectors (USD)	NA	380,000
Contribution to community development activities/infrastructure (USD)	4,400,000	920,000

However, the economic benefits of the investment projects must also be weighed against their social and environmental impacts.

5.2. Social impacts

The most significant social impact of investment in Savannakhet Province according to this study is the change it has exerted on the traditional production and livelihoods of local people. Before the expansion of investment and degradation of forests and other natural resources, NTFP collection, wood collection, and cutting straw for selling and household use were important livelihood activities and additional income sources of local people living in rural areas. However, the expansion of investment, especially in the plantation sector, has been linked to negative effects on forests, watersheds and biodiversity in the province – although environmental impacts, in the context of rural Lao PDR, these have significant social implications as well. On one hand, this makes the traditional way of life impossible, but on the other hand the investment generates new opportunities for local people. That leads to changes

in traditional patterns of production and livelihoods. Instead collecting NTFPs, wood and straw, local people now seek employment in factories in their location or move to the provincial center or other areas to find jobs and earn cash income.

The change seems to be a substantial shift from self-sufficient livelihoods to employment in an industrial production mode. This kind of livelihood activity is relatively new to Savannakhet Province, and has been linked in the case studies to landlessness, dependent employment and increased individuality. Discussions in the villages for these case studies indicate that this kind of “industrialized” and “modern” lifestyle is considered more dependent on external factors and therefore more uncertain, governed by mechanisms that Lao communities feel that they cannot control. Discussions revealed that villagers associate these lifestyle changes with a weakening of familial bonds and attachment to the land. They talk about this phenomenon as increasing individuality and describe being happier before these changes started happening. Of course, these shifts are occurring in communities across Lao PDR and cannot be explained solely by particular investment projects. However, in these two case studies, the investment projects concerned have provided an important momentum pushing communities along this path.

Health effects and occupational injuries associated with the investments were noted in each of the case studies. These are mainly caused by the use of chemicals, especially insecticides in plantations, without sufficient knowledge and adequate protection measures and gear. According to findings from the sugarcane plantation study, Mitr Lao does not provide adequate information on the dangers of chemicals nor protective equipment to its employees spraying insecticides in the plantation. The focus group discussions in Dong Phung, Keng Head and Na Dieng villages reported that illnesses, such as headaches, dizziness, itchiness and pains occur after spraying or washing in rivers or ponds located near the plantation. Villagers living around the plantations expect that the effects of chemical contamination on the health of local people will become more serious in the long-term. In addition, the discussions in Na Dieng village reported two work injuries in 2009. Both cases were children aged about 12 years old. One resulted in death and one involved a broken leg caused by falling off machinery. Neither case received compensation from the company. The cases indicate that workplace safety is not strongly regulated for the investment project concerned.

Child labor in investment projects is another social impact observed in Savannakhet Province. Based on findings from the case study on the sugarcane plantation, about half of the daily workers in the plantation are children below 14 years old, i.e. school-aged children. Although no significant evidences for negative effects of the plantation on education have been officially recorded by the school administration, focus groups of villagers and teachers¹¹¹ stated strongly

¹¹¹ In each sampling village three focus group discussions were held with village organizers, educated people and women. Each focus group had between 7 and 10 people.

that there has been a negative effect on school attendance and the quality of education in the area. However, it should also be noted that children working in order to help support their families is not uncommon in Lao PDR.

Conflicts over land are another feature associated with investments in the agriculture and forest sector, especially concerning land concessions. The problem is considered significant in Savannakhet Province. Many land conflicts were discussed, including conflicts among companies themselves, among companies and villagers, and among villagers themselves because of increasing land price. According to the Xayburi District Office for Planning and Investment, there are currently more 20 cases in its district alone that are not yet resolved.

The investments studied, especially investment in service sectors like the Casino, hotels, guest houses, bars, entertainment places, and so on, are attracting more people to visit Savannakhet Province. Discussions with the focus groups in the villages around the Savan Vegas Casino & Hotel indicate that this facilitates and increases certain social problems such as alcohol consumption, trafficking of people, and the commercial sex trade.¹¹² That in turn has implications for public health, especially the rate of HIV/AIDS infection. As noted above, Savannakhet Province has the highest number of HIV/AIDS cases in Lao PDR, with about 1,275 HIV/AIDS cases reported up until 2009.¹¹³ The relatively high HIV/AIDS infection rate in Savannakhet suggests a relatively high prevalence of unsafe sex and drug use. In addition, the focus group discussions in Nong Deng, Oudomvilay and Phonesavang Nua villages, which are located around Savan Vegas Casino & Hotel, noted that there has been an increasing trend in criminal activities and family conflict in their villages.

The matrix below provides an overview of the main social impacts noted in the two case studies.

Table 12: Matrix of social impacts identified in the two case studies

Item	Mitr Lao Sugar	Savan Vegas Casino & Hotel
Shift from traditional livelihoods to industrial livelihoods	X	X
Increased wage labor	X	X
Increased household expenditure on food, water, etc	X	
Increased social problems, such as gambling, alcohol consumption, family conflicts		X
Increased conflicts over land	X	
Child labour/negative impacts on education	X	

¹¹² As stated by participants in focus group discussions in villages around the Casino & Hotel.

¹¹³ Data provided by the National HIV/AIDS Prevention Center, the Ministry of Public Health.

Increased criminal behavior		X
Increased desire for material goods	X	

5.3. Environmental impacts

The most significant environmental impacts of investments in Savannakhet province revealed in this study are negative effects on forests, watersheds and biodiversity. According to the Savannakhet PDPI, thousands of hectares of forest in their province have been converted into plantations area during last five years, despite the illegality of forest conversion to plantation. As shown in this study, forest cover in Savannakhet Province has decreased from 60% in 2005 to 52% in 2009¹¹⁴, and this has been accompanied by deterioration in forest quality. According to findings from the case study in Dong Phung, Keng Head and Na Dieng villages, all three villages experiences a significant loss of village farm and forest lands, as shown in Table 13 below. In addition, mapping of the plantation areas indicated that there is an overlap between the sugarcane plantation and provincial protection forest. However, the provincial authorities were unable to confirm whether the forest areas in question had been officially classified as protection forest.

Table 13: Reduced forestlands in Mitr Lao Sugar case study villages, 2010

Villages	Present (ha)	Before sugar cane plantation (ha)	Reducing (ha)	Percentage (%)
Dong Phung	1,378	1,433	55	4
Keng Head	15	1,118	1,103	99
Na Dieng	297	559	262	47
Total	1,690	3,110	1,420	46

Source: Village surveys

The loss of village forests, apart from being technically illegal, has been accompanied by a loss of access to NTFPs, which previously provided a measure of food security and extra income for villagers in the case study area. Villagers in the Mitr Lao Sugar case study area also stated that numerous local rivers and reservoirs, which used to have water year round, have no water anymore during the dry season. The loss of forests, watersheds and sources of NTFPs through the conversion of forest to plantations results in a loss of the ecosystem services provided by the forest, a concomitant loss of local biodiversity and a loss of income and food previously supplied through these natural resources.

¹¹⁴ Savannakhet PDPI.

In addition, investments in the plantation sector utilize chemical pesticides and fertilizers to increase productivity. Some of the chemical materials used by Mitr Lao Sugar, for example, are considered highly hazardous and did not pass examination by MAF, meaning that the chemical is not on either the list of approved or prohibited chemicals, and therefore still requires assessment. This includes BAKAZONE, the commercial name of paraquat dichloride.¹¹⁵ The use of hazardous chemicals without sufficient knowledge and protection can have negative impacts on the health of employees and local people having contact with the materials and discussion groups believe that negative impacts extend to increased health risk to livestock, contamination of water sources and contamination of NTFPs.

Another environmental impact witnessed at the Savan Vegas Casino & Hotel is inadequate waste treatment facilities. The Casino & Hotel does not have a waste water treatment system, and untreated water flows immediately along an open wastewater channel located in front of the casino, i.e. in Nong Deng village where people live and travel. The focus groups complained that the wastewater smells and affects the physical and mental health of local people traveling and living the area. As industrial investments increase in Savannakhet Province including, for example, agricultural processing facilities, their impacts on local water supplies and quality will require careful management.

The negative environmental impacts explored in this study indicate that environmental protection in Savannakhet Province is not strongly implemented. Many investment projects were approved and implemented without a detailed environmental impacts study and certificate. Both the projects studied in Savannakhet Province, which were both approved at the central level, Mitr Lao Sugar Plantation & Factory and Savan Vegas Casino & Hotel, were found to not have conducted ESIA's before approval. The matrix of environmental and health impacts below summarizes the issues observed and raised during both case studies.

Table 14: Matrix of environmental and health impacts identified in the two case studies

Item	Mitr Lao Sugar	Savan Vegas Casino & Hotel
Loss of forest cover	X	
Loss of NTFPs	X	
Chemical contamination	X	
Ill health effects from chemical use	X	
Impacts on local water supplies	X	
Lack of wastewater treatment		X
Noise pollution		X

¹¹⁵ Please note that the company uses many chemicals, but during the field study only the use of BAKAZONE was observed.

6. Conclusions

Because of the favorable natural conditions and infrastructure development of Savannakhet Province, it has received significant investment flows during the last decade. Reaching a total of USD 2.123 billion over 2004-2008, investment in Savannakhet is significant nationally, accounting for 21.8% of all investment in the country during the same period. This study has also shown that the natural resource sectors attract the most investment in the province, with most FDI occurring in the agriculture and forestry sector (about 66%, followed by electricity and mining). Asian countries are the most important source of investment in Savannakhet Province, with India leading, followed by China, Australia, Thailand and Vietnam.

This study confirms that investment contributes substantially to employment and income generation activities for people in Savannakhet Province and has helped the province achieve a higher economic development status than the national average. The case studies have shown that certain investments are important generators of government revenue through concession fees, taxes and dividends, although the lack of transparency concerning dividend payments and how these benefits are in fact recycled to the local level makes it difficult to accurately judge their actual impact on socio-economic development. In some cases, investment projects also directly contribute to infrastructure and community development in the areas in which they operate. Investments can also have indirect economic benefits, stimulating growth in local economies in investment areas and helping to attract even more investment.

However, this study has shown that investments in Savannakhet Province are also associated with a number of serious negative impacts, economic, social and environmental. The limited capacity and uneven implementation of the province's investment approval and management system has been unable to prevent or control the negative effects identified by both local officials and local communities: decreased forest cover and quality, conflicts over land, declining water supplies and quality, decreased livestock production, loss of biodiversity and NTFPs, health problems, declining education attendance and quality, increased debt for farmers, increased criminal behavior in some cases, and other social problems such as gambling, alcohol consumption, and family conflicts. The fact that neither project examined as case studies in Savannakhet province conducted an ESIA indicates that this vital safeguard, designed to identify and mitigate these risks, is being either actively ignored or is slipping through an ineffective investment management system. Recommendations from the local communities involved in the two case studies to the companies and the Government included, among other points, that: the companies should provide more jobs for local people and pay better wages; the law prohibiting gambling by Lao people be enforced; that the companies contribute more to community development and environmental protection; and that chemical use in the plantations is investigated and controlled.

This study has shown that, because of the environmental and social problems associated with certain investments in the province, the positive and negative impacts of investments may cancel each other out. As a consequence, local people are unsure as to whether they truly benefit from the investments in their area or suffer more from their ill effects. In some cases, the costs of managing the negative impacts may in fact be higher than the economic gains. In particular, the costs and benefits of investment appear to be unevenly shared between the communities and people of the province: while one group may disproportionately share in the gains brought by investment, other groups are bearing a greater burden of the costs.

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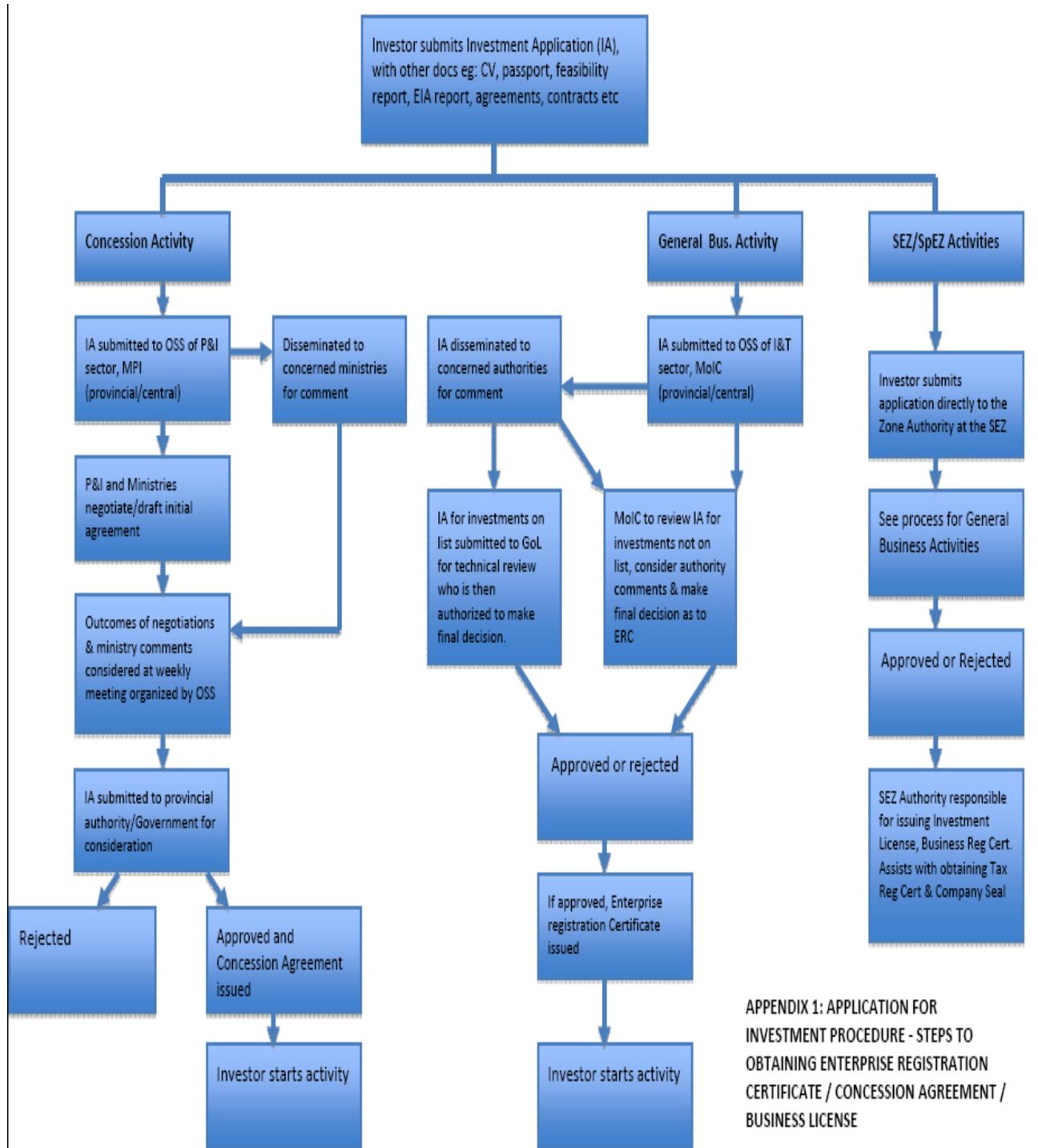
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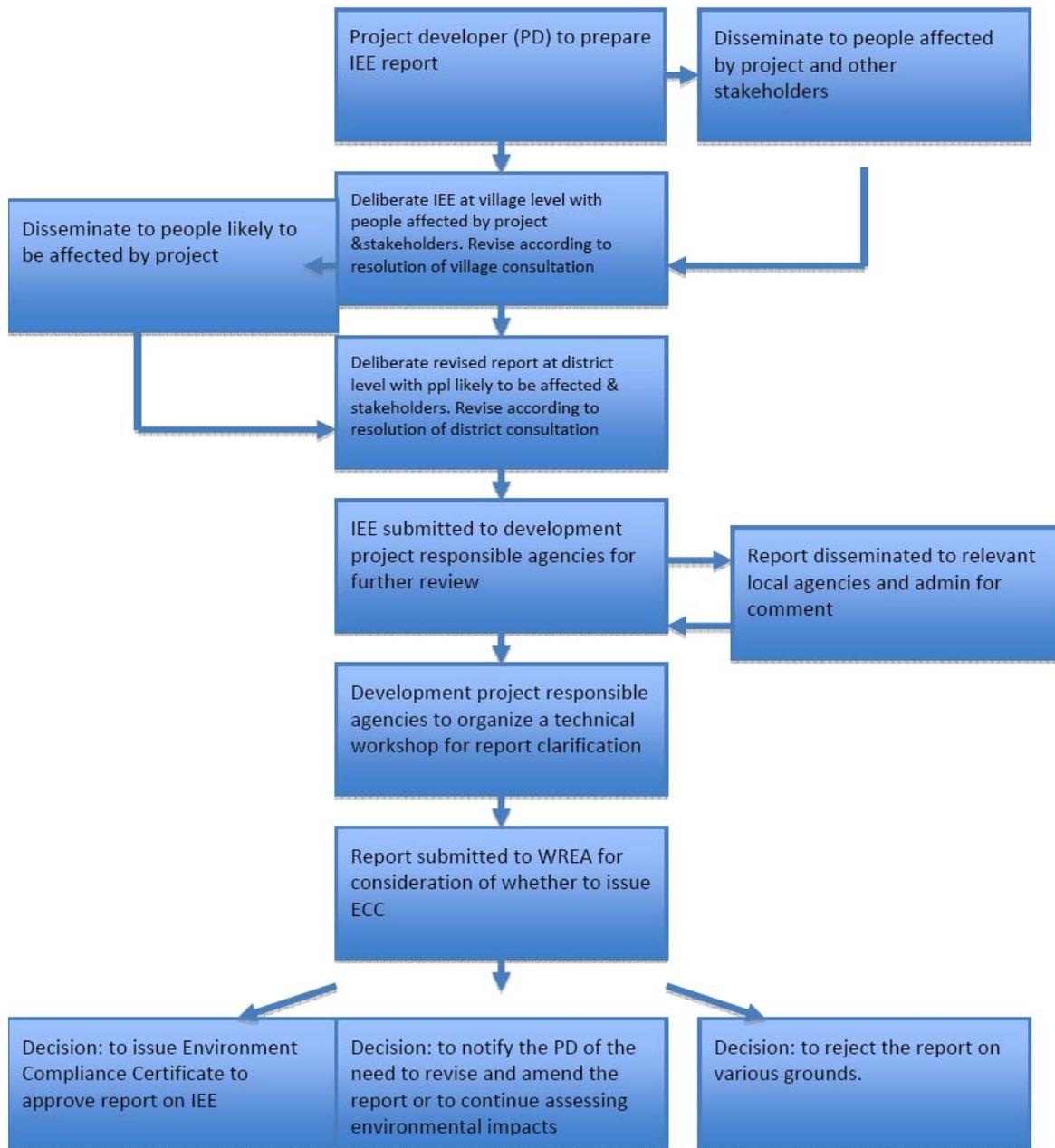
Annexes

Annex 1: Flowchart of investment approval processes

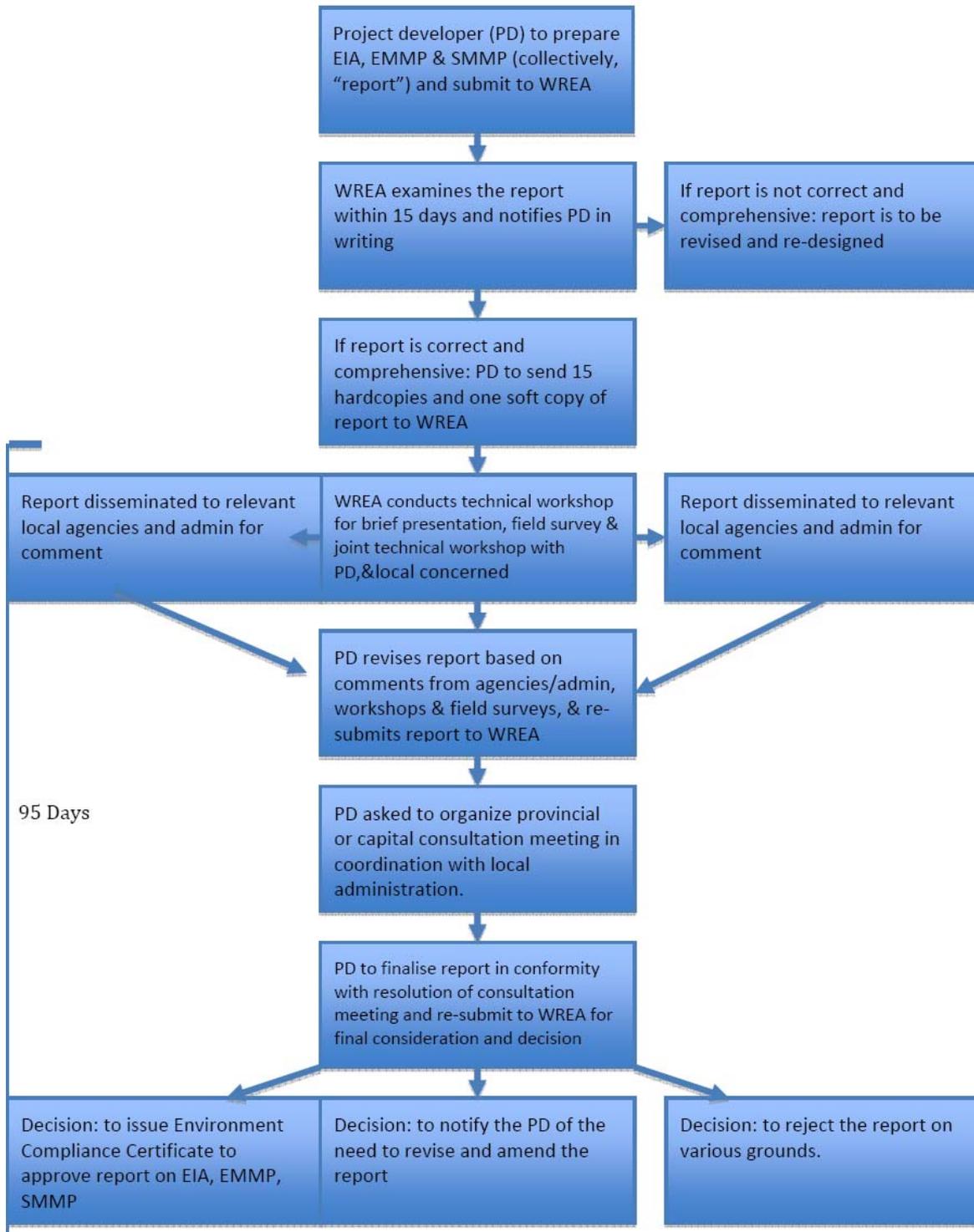


Annex 2: Annex 2: Flowcharts of IEE, ESIA and ECC processes

A. IEE to ECC



B. ESIA to ECC



Annex 3: List of Projects requiring IEES/ESIAs¹¹⁶

Projects Requiring IEES and EIAs in Laos (Final)			
Project Types		IEE	EIA
I Energy Development Projects			
1.1	Hydro-power	< 15 MW or water valum < 200 MCM or resevoir < 1500 ha	≥ 15 MW or water volum ≥ 200 MCM or resevoir ≥ 1500 ha
1.2	Nuclear		all scale
1.3	Natural gas	5 - 50 MW	> 50 MW
1.4	Coal	≤10 MW	>10 MW
1.5	Pipeline		all scale
1.6	Petrol extraction		all scale
1.7	Transmission lines		
1.7.1	< 230 KV	≤ 50 Km	> 50 Km
1.7.2	≥ 230 KV	all scale	in case the TL passes through protected area or community
1.7.3	TL substation	< 10 ha	≥ 10 ha
II Agricultural and Forestry Investment Projects			
2.1	Industrial forest plantation	10 - 300 ha	> 300 ha
2.2	Industrial flora plantation	10 - 500 ha	> 500 ha
2.3	Irrigation	100 - 500 ha	> 500 ha
2.4	Intensive livestock 4 legged---- animals farm	≥ 500 heads	
2.5	Intensive livestock poutries farm	≥ 1000 heads	
2.6	Pig farms	≥ 200 heads	
2.7	Fish and aquatic industrial production	≥ 5 ha	
2.8	Aquatic animals	≥ 250 m ²	
2.9	Crocodile farms	≥ 100 heads	
III Industrial Sector Development Projects *			
3.1	Meat processing	≤ 20T/day	> 20 T/day
3.2	Fish processing	≤ 20 T/day	> 20 T/day
3.3	Fruit and vegetable canneries	All scale	
3.4	Milk and cheese	≤ 40 T/day	> 40 T/day
3.5	Powder processing	50 - 100 T/day	> 100 T/day
3.6	Animal food processing	all scale	
3.7	Sugar processing	≤ 50 T/day	>50 T/day
3.8	Macaroni, noodles and ... factory	> 1 T/day	
3.9	Wine and beer factory	≤ 500,000 L/year	> 500,000 L/year
3.10	drinking water, soda, mineral water	all scale	
3.11	Sanitation drinking water	all scale	
3.12	Tobacco	all scale	
3.13	Textile	all scale	
3.14	Garment	all scale	
3.15	Skin processing	all scale	
3.16	Leather production (bag, shoes, luagge and etc)	≤ 1 million pieces/year	> 1 million pieces/year
3.17	Wood products	all scale	
3.18	Bamboo products	≤ 100,000 pieces/year	> 100,000 pieces/year
3.19	Paper factory	≤ 50 T/day	> 50 T/day
3.20	Printing	all scale	
3.21	petrol refineries		all scale
3.22	Chemical fertilizer factory	≤ 500 T/year	> 500 T/year
3.23	Chemical persiticide factory		all scale
3.24	traditional medicine	≤ 500 T/year	> 500 T/year
3.25	Soap, hygiene and cleaning agents, perfume and etc	≤ 10 T/year	> 10 T/year
3.26	Chemical products		all scale
3.27	Rubber processing	100 - 300 T/year	> 300 T/year
3.28	Plastics	≤ 500 T/year	> 500 T/year
3.29	Glass products	all scale	
3.30	Mineral production	all scale	
3.31	Cement and plaster	≤ 30 T/hour	> 30 T/hour
3.32	Steel smelters	≤ 120 T/day	> 120 T/day
3.33	Metal and magnets	≤ 50 T/day	> 50 T/day
3.34	Cast metal factory	all scale	
3.35	Pre-fabricated roof truss factory	all scale	
3.36	Generators and transformers	all scale	
3.37	Domestics appliances	all scale	
3.38	Satationary and computing factory	all scale	
3.39	electronic circuitry for appliances production	all scale	
3.40	Batteries	≤ 100 T/year	> 100 T/year
3.41	Radio, TV, Telecommunication equipment	all scale	
3.42	Medical and optical equipments	all scale	
3.43	semi trailers factory	all scale	
3.44	Car spare parts factory	≤ 1000 T/year	> 1000 T/year
3.45	Vehicle assembly factory	≤ 10,000 vehicles/year	> 10,000 vehicles/year
3.46	Furniture factory	≤10,000 products/year	≤10,000 products/year
3.47	Non- hazardous waste treatment	all scale	

¹¹⁶Unofficial translation provided by Ministry of Planning and Information.

	3.48	Hazardous waste treatment		all scale
	3.49	Waste treatment and management		all scale
	3.50	Water supply	all scale	

IV Infrastructure Investment Projects

	4.1	Projects requiring land filling		all scale
	4.2	Guesthouses	all scale	
	4.3	Golf link construction	9 holes	> 18 holes
	4.4	Sports complexes		all scale
	4.5	Fuel storage depots	600 - 60.000 barrels	> 60.000 barrels
	4.6	Industrial development zones		all scale
	4.7	Special zone economic development		all scale
	4.8	Sewerage construction	all scale	
	4.9	Wastewater treatment plant		all scale
	4.10	Road construction through national preservation and preserved wildlife areas		all scale
	4.11	Railway construction		≥ 100 Km
	4.12	New roads construction		all scale
	4.13	Roads repair	all scale	
	4.14	Airport construction which include road length	1000 -CE 2500 m	> 2500 m
	4.15	Hospitals	≤ 100 beds	≥ 100 beds
	4.16	Hotels	< 80 rooms	> 80 rooms
	4.17	Fully serviced hotels	< 50 ha	>50 ha
	4.19	Tourism and national park development		all scale
	4.20	Waste recycling plant		all scale
	4.21	Incineration plant		all scale
	4.22	Waste burning plant		all scale
	4.23	Project impacting areas of natural preservation value, historical and cultural value		all scale
	4.24	Tele communications	all scale	
	4.25	Waterway navigation	≤ 200 T	> 200 T
	4.26	Port construction		
	4.26.1	- Travelling port	≤ 500 dt	> 500 dt
	4.26.2	- General goods transportation port	≤ 500 dt (DWT)	> 500 dt (DWT)
	4.26.3	- Hazardous goods transportation port (fuel, chemical, coal, etc)		all scale
	4.27	Embankment construction		> 1 Km
	4.28	Community landfill	> 50 ha	> 50 ha
	4.29	Hazardous waste landfill		all scale
	4.3	Industrial waste landfill		all scale

V Mineral Investment Projects

	5.1	Industrial and agricultural processes, and urban services requiring ground water	< 4500 m ³ /day	> 4500 m ³ /day
	5.2	Sand extraction	1000CE50.000 m ³ /year	> 50.000 m ³ /year
	5.3	Stone extraction	≤ 50 T/day	> 50 T/day
	5.4	Raw material extraction	< 100.000 m ³ /year	≥ 100.000 m ³ /year
	5.5	Mining extraction (without chemical)		all scale
	5.6	Mining extraction and procession (with chemical)		all scale
	5.7	Mining processing		> 50.000 T/year
	5.8	Grond water extraction		>5.000 m ³ /day
	5.9	Surface water extraction		> 10.000 m ³ /day
	5.10	Mineral water extraction (surface and ground water)		>1.000 m ³ /day
	5.11	Natural mineral water extraction for medicinal		>500 m ³ /day
	5.12	Chemical mining extraction		all scale
	5.13	Petroleum and natural gass extraction		all scale

* Remark: industrial development projects exlude in this project categories (groupe III), industrial categories shall refer to requirement/standard of the Ministry of Industry and Commerce

Annex 4: Lists of Prohibited and Allowed Fertilizers and Insecticides within Lao PDR

A. Prohibited insecticides:

No	Name	No	Name
1	2,4,5 T	14	TEPP
2	DDT	15	Sodium chlorate
3	Aldrin	16	EDB
4	Endrin	17	Captafol
5	Dieldrin	18	Fluoroacetamide
6	Chlordimeform	19	Sodium fluoasetade
7	Heptachlor	20	Cyhexatine
8	Toxaphene	21	Daminocide
9	Ethyl Parathion	22	Binapaccryl
10	Leptophos	23	Dinoseb
11	BHC	24	Methyl bromide
12	Sodium Arsenite	25	Methyl parathion
13	MEMC	26	Monocrotophos

Source: the Ministry of Agriculture

B: Allowed insecticides

No	Common name	Trade name	Poisonous grade
1	Acephate	Orthin 75 Sp	3B
2	Carbaryl	Servin, Dicarbam, Vatavaryl	2B
3	Carbofuran	Furadan, Curaterr	2B
4	Carbosulfan	Poss, camang, Marsell	2B
5	Cartap	Padan	2B
6	Cyfluthrin	Baythroid, Solfac, Tampo, Responsor	2B
7	Cyhalothrin	Grenade, Karate	2B
8	Cypermethrin	Ripcord, Ambush, Barricade, Sherpa	2B
9	Deltamethrin	Decis, Kothrin, Bustoss, Cislin, Crakdown	2B
10	Diazinon	Bazudin, bassa	2B
11	Dimethoate	Cygon, Fostion, M.M, Rogor, Roxion, Perfekthion	2B
12	Ethrofenprox	Ethrofenprox	2B
13	Endosulfan	Thiodan, Thionex, Endocel	3B
14	Fenitrothion	Sumothion, Tronifan	2B
15	Fenvalerate	Sumi 35, Sumicidin, Sunrold	2B
16	Isoprocarb	Mipc, Carbacor, Mipcin, Micap, Ethrofolan	2B
17	Malathion	Malathan, Malaphos, Malaphate	2B
18	Methamidaphos	Sonnata, Monthana, Natharin, Monitor, Tamaron	3B
19	Methomyl	Miller, methavin, newdrin, lennate	1B
20	Coumatetralyl	Racumin	1B
21	Warfarin	Warfarin, Coumafene, Zoocoumarin, Coumarins	1B
22	Zinc phosphide	Celphos, Phostoxin, Quickphos	1B

23	Niclosamide	Baylusside	2B
24	Copper Sulphate	Bordeaux mixture	2B
25	Metaldehyde	Halizan, Metason, MifaSlug	3B
26	Benomyl	Benlate	3B
27	Carbendazim	Bavistin, Delsin	3B
28	Caboxin	Culator	3B
29	Captan	Captec, Merpan, Phytocape	3B
30	Copper oxychloride	Coppicide	3B
31	Edifenphos	Hinosan	1B
32	Zineb	Lanocob	NA
33	Mancozeb	Dithane M 45	NA
34	Maneb	Dithane M 22, Mazin	NA
35	Sulphur	Herovit	NA
36	Alachlor	lasso, Lazo, Alanex, Pillazzo	3B
37	Atrazine	Atrex, Atratal, Gesaprim, Vectal	NA
38	Butachlor	Machete, Lambast, Butanex	NA
39	2.4D	Hedonal, Weeder	2B
40	Diuron	Craminon, Arelon, Ip 50, Tolkan	NA
41	Glyphosate	Round up	NA
42	Oxadiazon	Ronstar	NA
43	Propanil	Sucopur, stam-F.34	3B
44	Simazine	Gesatop, primatol, Aquazine	NA
45	Ebufos	Rugby	1A
46	Ethoprophos	Macap	1A

C: List of Allowed Chemical Fertilizers in Lao PDR

- Ammonium sulphate**, containing nitrogen in term of Ammonium not less than 20 percent and moisture not over 3 percent of total weight.
- Urea**, containing nitrogen not less than 44 percent, Biuret not over 1 percent and moisture not over 3 percent of total weigh.
- Super phosphate**, containing Phosphorus in term of Available P (P_2O_5) not less than 20 percent, Arsenic not over 0.5 percent and moisture not over 3 percent of total weigh.
- Double super phosphate**, containing phosphate in term of P_2O_5 not less than 40 percent, Arsenic not over 0.5 percent and moisture not over 3 percent of total weigh.
- Triple super phosphate**, containing phosphate in term of P_2O_5 not less than 45 percent, Arsenic not over 0.5 percent and water not over 3 percent of total weigh.
- Potassium chloride**, containing Potassium in term of K_2O not less than 60 percent and moisture not less than 3 percent of total weigh.
- Potassium sulphate**, containing Potassium in term of K_2O not less than 48 percent and moisture not over 3 percent.

Source: the Ministry of Agriculture and Forestry

Remarks: 1A = extremely hazardous, the substance has Oral LD50, mg/kg less than 5

or LD for man less than 60 mg

1B= highly hazardous, the substance has Oral LD 50, mg/kg between 5 and

50 or LD for man between 1 and 5 g

2B= moderately hazardous, the substance has Oral LD50, mg/kg between 50

and 5000 or LD for man between 5 and 50g

3B= slightly hazardous. the substance has Oral LD 50 over 5000 or LD or

man over 50g

Annex 5: Key investments in Savannakhet Province¹¹⁷

SECTOR	INVESTMENT / PROJECT	INVESTOR/ COMPANY	NATION-ALITY?	LOCATION (town/ district)	SIZE OF INVESTMENT (usd)	SIZE OF CONCESSION/ Dam	DATE STARTED	STATUS	NO. PEOPLE EMPLOYED
Mining	Sepon Copper & Gold Mine	Minerals and Mining Group (MMG) (90%) and Lao Govt (10%)	Australia	Villaburi District, Savannakhet	\$39.9 million - gold; \$16.73 million - copper.	1250 square km	2002 - Gold; 2005 - copper.	In operation	1500 employees, 1484 contractors
	Gypsum/lime stone mine	* Gypsum Mining State Enterprise; * Kounxay Construction Ltd	Lao	Dong Hene	?	260 ha?	Gypsum mining started in 1979 (w GoV cooperation)	Operational	?
	Salamander Energy Oil & Gas exploration	Salamander Energy (in SVK partners are: Origin Energy (30%) PetroVietnam E&P (25%) IFC (10%) NCD/LIBC (5%))	UK	Savannakhet, Champassak & Saravan		PSC area is 19,520 square kilometers	2007	Exploration ongoing	200 (globally)
Plantations & processing	Mitr Lao Sugarcane plantation & factory	Mitr Phol Sugar Group & Tate Lyle	Thailand & UK	Xayburi, Outomphone & Champhone districts	Initial investment of 2.3 million Baht (USD 77,000)	10,000 ha in 40 year concession (possible 20 yr extension) - received 2006	2005, began operating in 2009	In operation	4000-7000

¹¹⁷ This table provides only an overview of certain key investments in the main sectors attracting investment in Savannakhet's economy. These were selected based on size, profile, availability of information and involvement of FDI.

	Birla-Lao Eucalyptus	Group: Aditya Birla Group; Company: Birla-Lao Pulp and Plantations Company Ltd (comprising 3 Aditya Birla Group Companies, Grasim Industries Limited (India), Thai Rayon Public Co. Limited (Thailand) and PT. Indo Bharat Rayon, (Indonesia)	India	Xaybouly, Outomporn, Atsaporn, Phalanxai districts (?)	\$350 million	50,000 ha, 75 year land concession	2006	?	Birla Group has c. 100,000 employees globally. Birla-Lao: 11-50?
	Stora Enso Eucalyptus	Stora Enso	Finnish-Swedish	Sepon, Nong and Vilabuly districts, Savannakhet	More than \$59 million (over two provinces - Savannakhet and Saravan)	35,000ha over two provinces, 50 year land concession	ESIA granted 2009	Sections in operation	Stora Enso has 40,000 employees worldwide. Employees in Lao PDR unknown
	Rubber plantation	Lao-Thai Hua Rubber Co Ltd (comprising Thai Hua Rubber Public Co Ltd - 60%; ChenShan Group - 20%; New Chip Xeng Co - 20%)	Thailand, China, Lao PDR		\$38 million registered capital (in Savannakhet, Boulikhamxay, Khammouan and Vientiane Provinces) - estimated that investment will reach \$100 million	10,000 ha in SVK (?); 40 year land concession (possible 40 year extension)	2006	?	?
Hydro-power	Tad Sakok	Dao Savan Group	Lao PDR?	?	?	Under investigation	Under investigation	MoU for investigation signed	?

	Tad Salen	Sinohydro Corporation (SIC)	Thailand	Savannakhet	?	3.2MW, CA signed 01/03/2009.	Operation Date TBD	MOU signed 22/07/2005 (exp 22/07/2006), PDA not required	?
	Xelanong	Norpower AS	Norway	Se Lanong	?	80MW	Operation Date TBD	MOU signed 26/11/2007, Feasibility stage	?
	Xe Banghiang (I & II)	Song Da Corporation Company	Vietnam	Xebanghiang	c. USD 400 million for both projects	65MW	Operation Date TBD	MOU signed 25/11/2008	?
Services & tourism	Savan-Vegas Casino & Hotel	Sanum Co. (60%); GoL (20%); Lao private investors (20%)	Macau, China	Kaishone Phomvihane District	\$50 million	50 year concession agreement (?)	2008	In operation	1,480 staff (c. 90% Lao)
	Savannakhet Eco-Guide Unit	Government & SNV (under management of Savannakhet Provincial Tourism Office)	Lao PDR & Netherlands	Sayamoungk houb Village, Savannakhet	?	?	2004	In operation	2 permanent staff members and 10 -20 eco-guides
	Daosavanh Resort & Spa	?	Lao PDR	Thahea Village, Kaisone Phomvihane District, Savannakhet	?	?	2009	In operation	80 staff
Industry & manufacturing	Savan Special Economic Zone - SavanPark	Joint Investors: Lao Government and Pacifica Dreams Development Co Ltd (who formed company Savan Pacifica Development Co	Malaysia and Lao PDR	Nongdeun Village, Kaisone Phomvihane District, Savannakhet	\$14 million	50 year concession agreement (after such time, all activities will be passed over to GoL)	2003	PDA signed 24/02/2008. In operation	N/A

		Ltd)							
	Savannakhet Garment Factory	?	?	Kaisone Phomvihan District, Savannakhet .	?	?	?	?	?
	No. 1 Garment Company	?	Lao PDR	Xaiyaphoum Village, Kaisone Phomvihan District, Savannakhet .	?	?	?	?	?
	East-West Corridor Project	ADB	Lao PDR	Savannakhet province (EWC links Myanmar, Thailand, Laos & Vietnam	US\$32 million (Lao component only)	?	Appraisal 24/11/99; 20/12/99 Loan 1727-LAO for US\$32 million approved	?	N/A

Annex 6: Full Case Study Report on Mitr Lao Sugarcane Plantation and Factory

Annex 7: Full Case Study Report on Savan Vegas Casino & Hotel