DISCUSSION PAPER

Rubber investments and market linkages in Lao PDR: approaches for sustainability

Charlotte Hicks, International Union for Conservation of Nature (IUCN) Lao PDR
Dr Saykham Voladeth, National Economic Research Institute (NERI) of Lao PDR
Weiyi Shi, Independent Consultant
Zhong Guifeng, GMS Study Center, Yunnan University
Sun Lei, GMS Study Center, Yunnan U ú A'", , † 0n , r,,3ợ't1wMyYK94A1493

CONTENTS

List of Tables and Figures

ACKNOWLEGEMENTS

Acronyms and abbreviations

ADB	**Asian Development Bank**
APB	**Agricultural Promotion Bank**
ANRPC	**Association Of Natural Rubber Producing Countries**
ASEAN	**The Association of Southeast Asian Nations**
CDM	**Clean Development Mechanism**
CPMI	**Committee for Promotion and Management of Investment (Lao PDR)**
CRIA	**China Rubber Industry Association**
CSR	**Corporate Social Responsibility**
DAFEO	**District Agriculture and Forestry Extension Office (Lao PDR)**
DAKRUCO	**Dak Lak Rubber Corporation**
DDFI	**Department of Domestic and Foreign Investment (Lao PDR)**
DPRA	**Development project responsible agency**
EIA	**Environmental Impact Assessment**
EMP	**Environmental Management Plan**
EU	**European Union**
FOB	**Free On Board**
FSC	**Forest Stewardship Council**
FTA	**Free Trade Agreement**
GDP	**Gross Domestic Product**
GEI	**Global Environment**

EDbM Yợ[?H[LA1w9Aw3A3116MAY66A4.?4V134MoY3A31.b'MBY91A116MeYbA'.9.wMaYK94A.1w.MnY3A46103

PRSF	**Poppy Replacement Special Fund**
RGS	**Rubber Growers' Society**
SAN	**Sustainable Agriculture Network**
SFA	**State Forestry Administration (China)**
SMR20	**Standard Malaysian Rubber Grade 20**
SVR	**Standard Vietnamese Rubber**
Sumernet	**Sustainable Mekong Research Network**
UNFCCC	**United NationsUn**

SUMMARY

Lao PDR is currently experiencing a sudden, rapid and largely uncontrolled expansion of rubber cultivation. It is clear that growth in China's demand for rubber is influencing the Chinese investment in rubber planting in northern Lao PDR and is very likely influencing the Vietnamese proposals for rubber plantation expansion in southern Lao. Some industry experts predict that the estimated 28 000 hectares of rubber plantations in Lao at present will grow to some 300 000 hectares by 2020.

This study is the result of collaborative research undertaken by the International Union for Conservation of Nature (IUCN) Lao PDR Office with partners in Lao PDR, China and Vietnam, with support from the Sustainable Mekong Research Network (Sumernet). The overall goal of Sumernet is to enhance the governance of natural resources and to catalyze the transition to sustainability in the Mekong region. In 2008, Sumernet supported a series of interlinked research projects, including this study, into rubber development in the Greater Mekong Sub-region (GMS), with a focus on the recent, rapid increase in rubber cultivation in Lao PDR. This study aims to enhance the current understanding of the scale, scope and linkages of investments in rubber in Lao PDR, as well as to explore approaches that could potentially inform the more sustainable development of rubber.

Protect control over land resources and access to benefits: The concession model favored for plantation development in souther

The Lao authorities may also consider linking appropriate agroforestry options to investment screening/approval.

<u>Establish investor protection and improve investment climate:</u> A precarious investment climate contributes to unsustainable practices. When investors are unsure about the long-term security of their projects, their priorities are to make quick gains and they are less motivated to invest in the sustainable development of rubber.

<u>Encourage CSR among local and foreign investors:</u> CSR is an important complement to government and civil society efforts to promote sustainable development. In order to facilitate the spread of effective CSR in Lao PDR, this

1. INTRODUCTION

1.1 Background

Lao PDR is currently experiencing a sudden, rapid and largely uncontrolled expansion

environmental impacts of rubber development, including rapid, unplanned and uncontrolled landscape change, and a lack of information, transparency, and accountability in the sector. Within government circles, these concerns have also prompted a slow-down on rubber, such as Luang Namtha Province's decision in late-2008 to suspend further rubber development (Vientiane Times, 11 November 2008).

D1A41Lw8.6MRY9A0b'iY91A431w.MnY3A461.4MfYK3A466w.MsYK1A431w.MnY3bA.3bb1MrYKA90bb.b3bKw0A.b'M

2. METHODOLOGIES

This research utilized a combination of desk-based and field research, conducted over a period of four months between September and December

relationships; market trends and concerns of investors and farmers in the Lao rubber sector. This research, using semi-structured interviews of key government, commercial and farming representatives, was conducted in Vientiane municipality, the northern Lao provinces of Luang Namtha and Bokeo, and in the southern province of Champassak, locations notable for their extensive ties to the Chinese and Vietnamese rubber sectors. The research team in Luang Namtha and Champassak Pr

China, the United States, Japan, India and Germany a

Increasing oil and energy prices. The increase in the price of oil raises the costs of producing synthetic rubber, making it less competitive with natural rubber. Should oil prices rise again, synthetic rubber consuming countries like the United States, Germany, the United Kingdom, and France are expected to increasingly choose natural rubber (Tavarolit, 2006).

Economic growth in China. As mentioned above, China is the world's number one consumer of natural rubber, consuming more than a quarter of global production in 2006. The country has maintained an average annual economic growth rate of about 10% over the last decade. By 2020, China is expected to consume around 30% of global rubber supplies. The country's automotive industry, for example, grows by about 20% each year. It has been predicted that China will increase its vehicle fleet from the current level of 10 million to 200 million by 2020, as household incomes rise and over 20,000 kilometers of new roads are built (Douangsavanh et al, 2008).

Global environmental concerns: natural rubber is often identified as a more environmental friendly product in comparison with synthetic rubber. Growing environmental awareness is expected to change consumer behavior, particularly in developed countries that use mainly synthetic rubber, leading to increased demand for natural rubber (Douangsavanh et al, 2008).

According to the IRSG (2007), the share of natural

China is expected be the world's top consumer of natural rubber, requiring around 4.8 million tons by 2020 (36.6% of global consumption). It is followed by the European Union (EU) and the United States, expected to consume 1.7 and 1 million tons respectively (13.1 and 7.4% of total natural rubber consumption, respectively).

3.1.2 Natural rubber supply

According to IRSG (2007), the Asian region is the world's most important producer of natural rubber, providing more than 97% of the global supply in 2006. The main producing countries are Thailand, Indonesia, Malaysia and China (Table 1 provides details of natural rubber production by country). Natural rubber production is expected consistently increase from 8.7 million tons in 2005 to about 10 million tons in 2010 and further 12.6 million tons in 2020.

3.1.3 Demand and supply gap of natural rubber

decreased rapidly from over US$3 per kilogram in June 2008 to US$1 per kilogram in December 2008, a reduction of almost 70% over a six-month period (Bangkok Post, 11 December 2008). A similar drop in prices occurred between 1995 and 2002.

Figure 5: Natural rubber price from 1995 to 2007

Until recently, the GoL has not developed any clear position at the national level on the promotion of rubber. This is due to a number of reasons, including concerns about social and environmental impacts. However, the provinces of Lao PDR have been quicker to embrace rubber, particularly Luang Namtha in the north of the country. At the Fifth Party Congress of Luang Namtha Province, rubber plantations were presented as a way to eliminate "slash and burn" cultivation, to replace opium cultivation and to reduce poverty. The province established a number of policies and programmes to promote rubber development, which are discussed in greater detail in section 3.3 below. About 8,770 ha of rubber have already been planted in Luang Namtha Province, with plans to expand its production area to 20,000 ha by 2010

Farmer associations. This model is not very common in Lao PDR, but can be found in some villages in Luang Namtha, such as in Ban Hadnyao. The farmers are

arbitrary occupation of land: those who want to use land have to ask for permission from the NLMA. According to the Land Law, concessions equal to or less than 3 ha can be processed at the district level, those equal to or less that 100 ha at the provincial level, and those equal to or less than 10,000 ha can be processed at the central level. Concessions exceeding 10,000 ha require approval from the National Assembly. Individuals or organizations are able to lease land for a maximum of 30 years (this is renewable). The law is favorable for investments in plantations such as rubber and provides access to land for all foreign and domestic investors.

The Environmental Protection Law (1999). This law requires an environmental impact assessment to be carried out for any investment project, including rubber plantations. The Law empowers the Water Resources and Environment Administration (WREA) to conduct EIAs, to issue environmental certificates, and to monitor and evaluate the environmental effects of any investment project. WREA is also able to suggest to other agencies concerned measures to mitigate impacts or even to halt investment projects temporally or permanently, should the project have significant negative effects on environment and human health. This is in accordance with the Investment Promotion Law.

The Forestry Law (1996, 2007). The Lao PDR Forestry Law strongly prohibits the clearing of "primary forest" and "secondary forest" for agricultural production, especially for large-scale production. According to the Law, large scale plantations are only allowed on "degraded forest areas" and on "non-forest areas". The Water and Water Resource Management Law (1996) also prohibits clearing watershed areas for plantation purposes (Articles 14 and 31). The Law was revised in 2007.

The Agriculture Law (1998). This law requires that plantation projects are only allocated "degraded" and "non-forest" areas. In addition, the Law promotes the use the environmentally friendly techniques and technologies, including bio-fertilizers and bio-insecticides (Article 12). The Law limits and prohibits the use of chemical fertilizers and insecticides that have negative impacts on the environment including soil quality, water quality, biodiversity and human health. The Management of Fertilizers Regulation (1503/MAF 2000) and the Regulation on the Use of Insecticides (1578/MAF 2000) also prohibit the use of products which have significant negative impacts on the environment and human health. They determinate quality standards and list chemical fertilizers and insecticides which are allowed to be produced, imported and used within the country (please see Annex 5 for lists of allowed and prohibited chemical fertilizers and insecticides).

Although Lao PDR lacks specific promotion policies in the rubber sector, there is evidence that incentives are being provided at the provincial level. For example, in the case of Luang Namtha, the provincial authority saw an opportunity in the "rubber boom" to reduce poverty and stabilize shifting cultivation (Shi, 2008). In the early days of the boom, the Luang Namtha authorities provided technical assistance and allocated specific funding to provide low interest credit[7] of 1-3 million Lao Kip in total, in order to assist household to purchase seedlings and other supplies, such as barbed wire for fencing (Douangsavanh et al, 2008). In December 2003, the Luang Namtha government made the first attempt at engineering and regulating investments in rubber on broad scale, enacting Regulation No. 34 on General Model of Investment in Rubber Plantation Sector. According to this regulation, investors may invest in the sector through either concessions or contract farming. Luang Namtha has since strongly promoted the "2+3" contract farming model, and since October 2005 the three northern provinces of Luang Namtha, Bokeo and Oudomxay have stopped issuing land concessions (Shi, 2008).

The attitude of the provinces towards the planning and regulation of rubber continues to shift. More recently, Luang Namtha enacted Regulation No. 7 on Land Allocation, which provides that households without paddy will be allocated 1 ha of land and given rubber seedlings by the provincial government. However, this regulation has yet to be implemented, and will be farther complicated by an even more recent decree by the Luang Namtha government calling for a suspension of all rubber plantations (Vientiane Times, 11 November 2008).

3.4 Key actors in the Lao rubber sector

There are many stakeholders involved in the development of rubber plantations in Lao PDR, including government agencies, domestic and international companies, and individual farmers and traders.

3.4.1 Government and public agencies

The Lao government agencies at the national and provincial level involved in policy-making making and regulation of the rubber sector are:

process. After an investment proposal has been submitted to MPI, the Ministry will distribute it to all concerned agencies. MPI organizes monthly meetings to discuss investment projects, where other relevant government agencies can make comments (the investment approvals process is discussed in greater detail in section 3.5 below and in Annexes 6 and 7). The Ministry has some responsibility for planning investments in the plantation and other sectors. Since 2004, for example, MPI has been drafting a socio-economic development plan for northern Lao PDR, in cooperation with Chinese experts and with financial support from the Government of China[8]. MPI also has budget allocation functions (along with the Ministry of Finance, MOF). While MOF determines the overall budget amount, MPI allocates it to certain projects and activities. Up until now, however, there is no MPI financial package to support rubber development, and capital for rubber has been sourced from foreign direct investment (FDI) and domestic capital.

<u>The Ministry of Agriculture and Forestry (MAF)</u>

numerous forest areas which should be protected in accordance with the Forestry Law. This contributes to the difficulties and risks involved in approving plantation projects: projects may still be approved in areas of high forest value. In addition, MAF provides technical assistance to farmers and agricultural companies. NAFRI, for example, produces technical guidelines for distribution to all provinces, and has organized technical workshops on rubber cultivation in several provinces. However, the distribution of technical information related to rubber cultivation and production is still insufficient, with indications that the majority of farmers receive technical information primarily through informal channels and companies.

<u>The Water Resources and Environment Agency (WREA)</u>. WREA has the same status as a ministry and is attached to the Prime Minister's Office. WREA also maintains a "coordination network" at the provincial level and in key ministries such as MAF, MIC and the Ministry of Public Works. WREA is not involved in investment promotion, but has a mandate to ensure environmental protection and sustainable development. It is responsible for conducting, approving and monitoring environmental impact assessments (EIAs) and issuing environmental

Most of the households involved in rubber cultivation in Lao PDR have been introduced to rubber and received market and technical information through informal channels. These include relatives, friends or traders who live across the border (in China). They use their own investment capital and are responsible fully for their production, such as selecting and preparing land, grafting, managing, tapping, marketing, and so on. According to our field research in Luang Namtha and Champassak, most independent farmers use their own household labour for rubber cultivation and production. However, some households with larger plantation areas also make use of their relatives from other province such as Xiengkhuang and Huaphan. Independent smallholder farmers are a very significant portion of the agricultural and rubber sectors in the North. According to Shi (2008), they account for around 80% of the total rubber plantation areas in Luang Namtha Province. Discussions with six households planting rubber in Luang Namtha and Champassak highlighted that this group lacks a clear market perspective, strategy or access to related i

Two domestic investment companies were interviewed during field research: Lao Export-Import Development Company and Xaysana Company. The Lao Export-Import Company was established in the 1990s and mainly exports agricultural products to Vietnam and China. Through its previous experiences, the company identified a demand for rubber in both these countries, especially in China. In 1994, the company undertook an experiment by promoting rubber to villagers in Namdieng Village, Luang Namtha Province, resulting in about 10 ha planted. Since 2001, the company has been exporting rubber to China. Lao Export-Import Development Company utilizes different contract farming models, including 2+3, 2+2 and 1+4, depending on conditions in different villages. At present, the company has 748 ha in Luang Namtha and plans to expand its production area.

The other domestic company interviewed was Xaysana Company, a private company operating in Champassak Province and utilizing its own capital. The company is involved in many business activities, including construction and exporting agricultural products to Vietnam and Thailand. Since 2006, Xaysana has invested in rubber plantations on a concession model. The company currently has a 60 ha concession issued by the Champassak provincial authorities and employs around 10 laborers. Xaysana plans to expand its production area to 100 ha by 2015. It aims to sell its latex to large rubber companies operating in the same area, as well as exporting it to Vietnam and Thailand by itself.

In general, Lao domestic investors have no direct market linkages with rubber consuming industries, such as the vehicle industry. The investors mainly rely on large international companies operating in similar locations for exporting their latex. So far, Lao domestic investors see international companies which have direct linkages rubber consuming industry as their market.

3.4.2.2 International investors

There are two main groups of international investors in the Lao rubber sector: Chinese and Vietnamese investors. The operations, resources and priorities will be discussed in much greater detail in sections 4 and 5 of this report.

<u>Chinese companies</u>

Chinese companies dominate investments in the rubber plantations of northern Lao PDR. However, there are no reliable figures for exactly how many Chinese rubber companies operate in Lao PDR. According to the Luang Namtha PAFO, around 15 Chinese rubber companies have established offices in the province, although they

Vietnam, VRA promotes the expansion of production areas into neighboring countries, especially Lao PDR and Cambodia. According to Mr. Le Chi, Director General of Xu Yao Chieng Company, VRA plans to grow rubber on 100,000 ha in Lao PDR and 100,000 ha in Cambodia. The Association has signed an agreement to this end with the GoL, and many VRA members have already started to invest in rubber. At present, the total plantation area of Vietnamese companies is estimated to be over 43,000 ha, mainly in the five southern provinces of Champassak, Saravan, Attapeu, Sekong and Savannakhet.

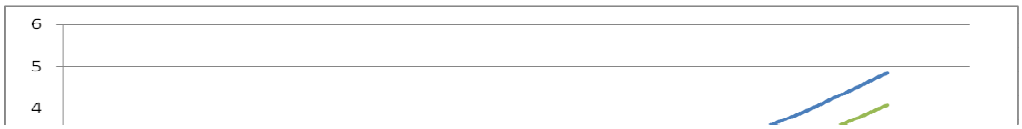
During the field survey, we interviewed three Vietnamese companies: Viet-Lao Rubber Joint Stock Company; Viet-Lao Joint Venture Xu Yao Chieng; and Dak Lak Rubber Company. The Viet-Lao Rubber Joint Stock Company is actually a joint stock company founded by seven rubber companies

3.5 Investment approval process in Lao PDR

This section will outline the processes that investors must undergo to obtain approval for projects in Lao PobtMoY R

and predicted production, demand and import levels for natural rubber in China until 2020.

Figure 6: Demand, production and import of natural rubber in China until 2020 (in million tons)



to China is selected as a key measure to promote development in the northern provinces.

The expanding economic relationship between the two countries, as well as the programs and measures described above, all indicate a clear interest on the part of China to increase imports of rubber from Lao PDR. However, the Lao rubber sector must also compete with other rubber producing countries such as Thailand, Vietnam, Indonesia, Malaysia, Cambodia and Myanmar, as well

dependent labour employed in the rubber industry in the case of concessions. Farmers and employees will become more dependent on market forces and trends. Any subsequent return to subsistence agriculture is often difficult, especially if the resources once relied upon have been depleted. If rubber prices remain high, people may enjoy increasing profits, but farmers dependent on rubber, or any other single cash crop, for their livelihoods will face difficulties should prices drop.

Effect on soil quality. Using chemical fertilizers, herbicides and insecticides in the plantation industry can contribute to the rapid deterioration of soil quality. Concerns have been raised that under the free market economy, the use of the chemicals to enhance productivity and competitiveness is intensive and increasingly prevalent.

Conflict over land. Before the "rubber boom", upland areas belonged to the community, but individual could occupy and use the land to meet their subsistence needs. After the harvest, the land would come back to the community; no-one occupied the land for long periods. Traditional land ownership and use has now changed, with occupation continuing and land being sold on. This may lead land shortages for some communities and land conflict between villagers themselves, as well as between villagers and companies and

4. CHINA'S ROLE IN THE LAO RUBBER SECTOR

however, rose over time. In 2006 China possessed a total area of 776,200 hectares of

and mammals (Wu, 2001). Infections spread more easily in large, monoculture plantations: a powdery mildew epidemic of historical proportions is expected to reduce

4.2 Chinese rubber investments abroad

to expand its rubber plantations from 70,000 hectares in 2006 to ultimately 350,000 ha, presenting tantalizing opportunities for foreign investors (ANRPC, 2007).

China's rubber investments in Southeast Asia are manifold. Mr. He Jianan, official with Yunnan Department of Commerce, summarizes the primary modes as follows: 1) direct investments through land concessions; 2) cooperation with the local government to provide rubber seedlings and technological training to local growers; 3) providing training directly to local growers and purchasing latex; and 4) contract farming and profit-sharing schemes between companies and local growers (Economic Reference, 21 September 2006). For countries with a relatively mature rubber industry, China shifts away from developing plantations and instead concentrates on investing in processing facilities and trading platforms, thereby securing and sustaining the supply chains.

China's overseas rubber investments are channeled through both public and private actors. The state offers policy incentives, acts as financier through the provision of credit and subsidies to private businesses, and also invests directly through now semi-privatized state farms.

4.2.2 State Farms

Yunnan, Hainan, and Guangdong state farms (YSF, HSF, and GSF) are the main state enterprises venturing out. Their overseas explorations, focusing on Southeast Asia, began around 2004. YSF targets Lao PDR and holds a national agreement to plant rubber in four northern Lao provinces (Luang Namtha, Bokeo, Sayaburi and Oudomxay) for a total area of 166,667 ha. 33,333 ha are to be established as demonstration (concession) areas and the rest accomplished through contract farming and profit sharing with local villagers.

HSF has set sights on Preah Vihear, Cambodia, and Sarawak, Malaysia.[19] In March 2006, HSF signed an agreement with a Cambodian company to develop and manage 62,659 ha of plantations over a 70-year period in Preah Vihear Province (People's Daily, 1 April 2006). In its overseas development plan HSF aims to establish 60,000 ha of rubber plantations in Mala9MiYbA131w.MgYbA1bử MwYK3A49wbMhY6b06196M41MpYK6A9'1MpYK6A9'1M

company aims to establish 33,333 ha overseas plantations in total by 2010 (Finance Daily, 23 March 2006)[20].

4.2.3 Other Companies and Investors

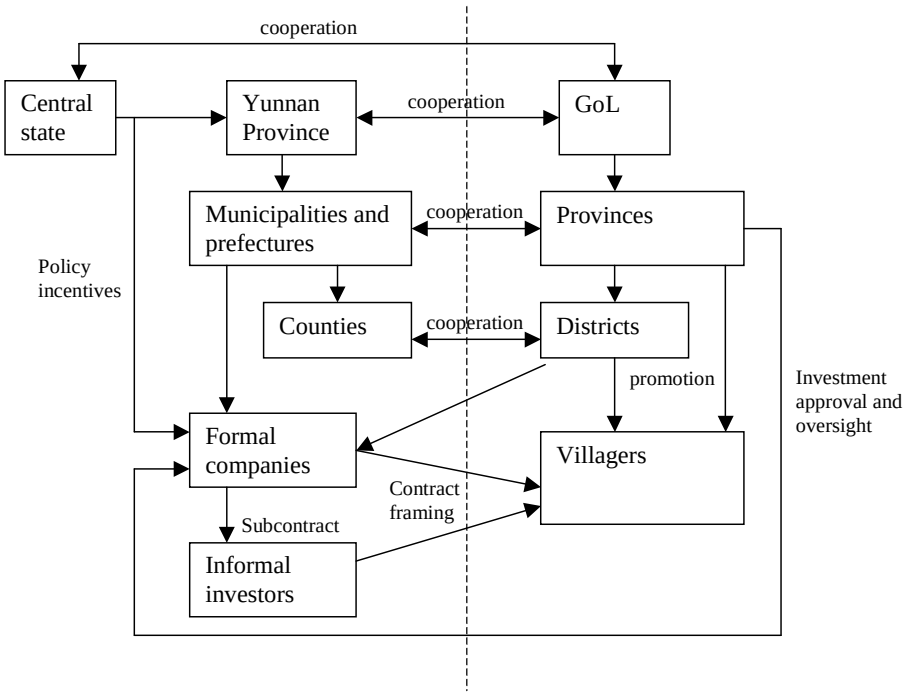
In addition to state farms, private Chinese companies play a prominent, if not dominant, role in overseas rubber development. However, there is a lack of systematic data on their activities except for those receiving Poppy Replacement Special Fund (PRSF) from the Chinese government. Established in 2006 by the State Council, PRSF supports Chinese businesses in northern Lao PDR and Myanmar in developing economic alternatives to poppy growing. Almost all formally organized Chinese rubber companies in Lao PDR and Myanmar are supported in part by the PRSF. According to incomplete statistics from the Xishuangbanna and Kunming Bureaus of Commerce, there are

4.4.1 China

classification of their sites. For most rubber companies operating in remote areas with little infrastructure (Zone 1), this means a profit tax exemption of 7 years (after tapping begins) and a reduced tax rate of 10% thereafter.[28]

However, the Lao authorities' attitude toward rubber seems to have taken on a more cautionary tone in recent months at both the provincial and national levels. In addition to the longer-standing moratorium on large concessions, Luang Namtha authorities have

Figure 9. Stakeholder Relationships



If approved, company obtains People's Republic of China Certificate of Approval for Overseas Investment. The entire process takes 20 to 25 days;

To meet qualifications for PRSF, companies submit additional materials, including feasibility reports and supporting documents from Lao authorities, to local or provincial Poppy Replacement Office for approval.

4.6.2 Lao PDR

On the recipient end, most Chinese rubber companies begin by applying through the one-stop service of CPMI at the provincial departme

though the CPMI and PDPI have been given the authority, it remains an ongoing effort to establish an effective body to streamline the investment process.

In determining land availability and village designations, joint efforts are made among PAFO, DAFEO, investors and village committees. The PLMA is also involved in some cases, but as with the central NLMA, the relatively new agency is generally believed to lack executive power and many land use decisions are still led by PAFO. Interviewed investors describe a general process where they express investment intent, PAFO, in cooperation with DAFEO, assigns a district or villager cluster, and then companies and authorities join efforts in consulting with villagers and promoting the crop. However, as is evidenced by the paragraph above, this process does not fully apply to all cases.

The investment decision process reflects a combination of participatory consultations and a top-down contract making mechanism. This somewhat paradoxical mix has proved problematic when provincial contracts are established before completing thorough surveys and consultations at the village level. An unholy trinity arises in this case: villagers are not committed to the development schemes; lower level authorities are in an awkward position between approvals granted by higher authorities and lack of land or cooperating villages on the ground; companies with higher-level contracts are frustrated by the lack of alignment between various levels of the Lao government.

As a result, where provincial or national contracts are signed first, investors often do not access the total amount of land prescribed by their contracts. However, it should be noted that, while this is a source of frustration for investors, it is also a fact that they exploit strategically or even facilitate:

- **Investors purposefully pursue unrealistically large contracts in an attempt to obtain more subsidies and larger loans from the Chinese government and banks;**
- **Investors are motivated to claim as much land as possible, even if only contractually, as land alone constitutes valuable investment and is easily sublet at a profit to other investors;**
- **Contracts of large areas made at a higher level strengthen a company's negotiating position at lower levels.**

In determining which companies to accept in the province, Lao provincial authorities have little information beyond the companies' applications and find it difficult to thoroughly evaluate the background of investors (interviews; NAFRI, 2007). As a result, investments are largely approved on a first-come, first-serve basis. In both Bokeo and Luang Namtha, officials express that there are enough rubber companies already and do not plan to accept new investors in the rubber sector.

land is conceded to investors for development, though what constitutes state land is a source of frequent disputes. In this model, companies enjoy autonomy in managing plantations, own all the trees, keep full profits, and if local villagers participate in the process at all (plantations may also be established and maintained by external labour), are compensated as wage laborers. Examples of this model include "demonstration gardens," military concessions in the country's northern borderlands, and incidental concession plots obtained as compensation for failed contract farming schemes, in exchange for infrastructure development, and through other pathways.

Contract farming in the policy literature generally refers to a "2+3" model where companies contribute capital, technology, and marketing while villagers provide land and labour input. The venture's profits are then shared between companies and farmers according to a typical 30% and 70% split. "2+3" is the official stance promoted by the Lao government. However, in implementation, contract farming takes many varied forms. For example, "1+4", where the villagers contribute only land, is popular in Luang Namtha. This model is similar to a concession except that villagers obtain a small share of the trees. In this report, we classify all arrangements where villagers retain a certain share of the profits, latex, or trees as contract farming.

4.8.1 Concessions

In October 2005, three northern provinces, Luang Namtha, Bokeo, and Oudomxai, formed an official agreement to avoid land concessions in rubber development and promote "2+3" contract farming schemes. In May 2007, the prime minister announced an indefinite suspension of concessions over 100 ha in industrial tree plantations, perennial plants and mining, citing the lack of a comprehensive land management strategy and emerging negative environmental and community impacts (Vientiane Times, 9 May 2007). The "2+3" model is seen as a better model for alleviating poverty, preserving land access, and promoting a sense of ownership among local growers. The recently revised Forestry Law (No.6/NA, 24 December 2007) provides that, regarding the conversion of degraded forest land, provinces can authorize no more than 100 ha per activity, MAF and NLMA no more than 1000 ha, above which the endorsement by the National Assembly is necessary.

government is known to grant larger areas. Luang Namtha also possesses expansive concessions of defense land in the border areas (Shi, 2008). In addition, demonstrations are sometimes granted as compensation for failed contract farming schemes or in exchange for infrastructure development.

The legality of new concessions of over 100 ha, if they exist, is debatable. Apart from interviews, we could not identify any actual documentation to evidence approval by provincial authorities in Bokeo Province. Most interviewed investors are well aware of the provincial limit and describe ongoing efforts or immediate plans to upgrade their contracts to the national level, possibly to justify the legal status of new concessions.

According to investors, the motivations for establishing demonstrations are multiple:

> **Demonstrations provide examples of sound techniques and good management to educate local farmers;**
>
> **It is a safeguarding and insurance policy. If contract farming fails, investors can count on partial profits from demonstration gardens;**
>
> **Investors have better control over the maintenance of demonstrations, so investors also hope to use them to underscore the quality of inputs, should disputes arise later with villagers regarding seedling quality;**
>
> **Since December 2007, companies have had added incentives for pursuing demonstrations. The Yunnan government set aside part of PRSF specially for subsidizing demonstration areas (see section 4.6).**

When asked whether this policy move signifies preference for one investment model over another, Xishuangbanna authorities suggest that the government supports both models of development. In the broader context of China's overseas rubber development, Lao PDR is uncommon in instituting "2+3" as the predominant mode of investment. China's rubber investments in Myanmar and Cambodia, for example, are primarily accomplished through land concessions. Some investors acknowledge that incentives for demonstrations may be inconsistent with Lao government's promotion of the "2+3" model. They expressed hope that governments on both sides will resolve policy differences to clarify the legal standing of demonstration areas and streamline the application process.

Concessions, particularly those larger in area, present a source of conflicts between investors, government, and villagers. Even though concessions, by definition, apply only to state land, what constitutes state land is highly contested. What the authorities classify as state land may in fact be customarily occupied by private parties, but unclear

crops is only viable in the first two to three years before the rubber canopies close, while it takes seven to eight years before rubber trees will generate income[30].

- In Bokeo, villagers are relatively new to rubber and have not directly confronted the competing labour demands this presents for their livelihood systems. Houay Xai District has had a long history in planting commercial crops (corn, soybeans, oranges) and trees (eaglewood, teak) to supply the Thai markets. While this diversifies villagers' income sources, it also complicates the management and coordination of labour. Most interviewed villagers in Houay Xai district do not appear to have an adequate understanding of rubber's intensive labour requirements. If necessary, some expressed plans to hire external laborers and, if that is not possible, to sell trees to investors.

Typical "2+3" contract farming arrangements may not be conducive to large industrial plantations, but investors are nevertheless creative in devising incentives to encourage larger plots among villagers. A company in Meung District of Bokeo, for example, is said to implement a policy where, if five families manage to put together more than 3 ha each on the same plot, the company will provide machines for drilling and grass clearing for free. "2+3" investors in Bokeo are also eager to pursue demonstration plots to tag onto existing contracts. Whatever the specific arrangement investors may have subscribed to, in Luang Namtha or Bokeo, they share a desire for greater autonomy, easier management, and, naturally, larger plots over scattered pockets.

It should be noted that, although "2+3" and "1+4" have become policy buzz words, such

e3e31w.MlYK.A90bb.MlYK.A90w.MaYKwA'16.1MbYK6A9'.w.M YKw0.9.wMrYwA'.MsYK9.A34.9M'Y99A3bb1McY

What are the responsibilities of each contracting party? What inputs do investors provide? What inputs do villagers provide? How do shares of responsibilities vary over the course of the project?

Is labour provided by villagers or external hires? How is labour compensated, if it is compensated? How does the labour arrangement vary over the course of the project?

When does each contracting party claim its share (e.g. one year after planting, three years, five years, or after tapping)? What exactly is claimed (trees, latex, or profits)? What share does each party obtain?

Must villagers sell latex to the contracting investor or whoever offers the higher price?

Is there a minimum guaranteed collection price?

Likewise, in evaluating whether a contract-farming scheme brings benefits to villagers, rather than focusing on whether it qualifies for the typical "2+3" or "1+4" or neither, we may focus on:

Is the division of gains (trees, latex, or profits) proportionate to the level of input and effort by each contracting party? However, this is difficult to evaluate because there are no developed markets for land.

Do villagers possess sufficient labour supply to integrate rubber into their household production systems?

Do villagers have alternate income sources during the pre-tapping years?

Is there mutual understanding and commitment between the villagers and investors?

Villagers are motivated by a variety of reasons to participate in contract farming schemes. Most cite that they would like to plant rubber but lack funds and technical know-how. In some cases, however, villagers face the difficult choice of participating in contract farming or risk losing their land to concession. Using the threat of land concession to facilitate contract farming has been observed in Luang Namtha as well as Oudomxay (Shi, 2008, Thongmanivong et. al, in preparation). Fear of concession has also motivated villagers in Sekong to sell land plots to rubber companies pre-emptively to fetch a better price (Vientiane Times, 2 September 2008).

Villagers generally have to following concerns about contract farming:

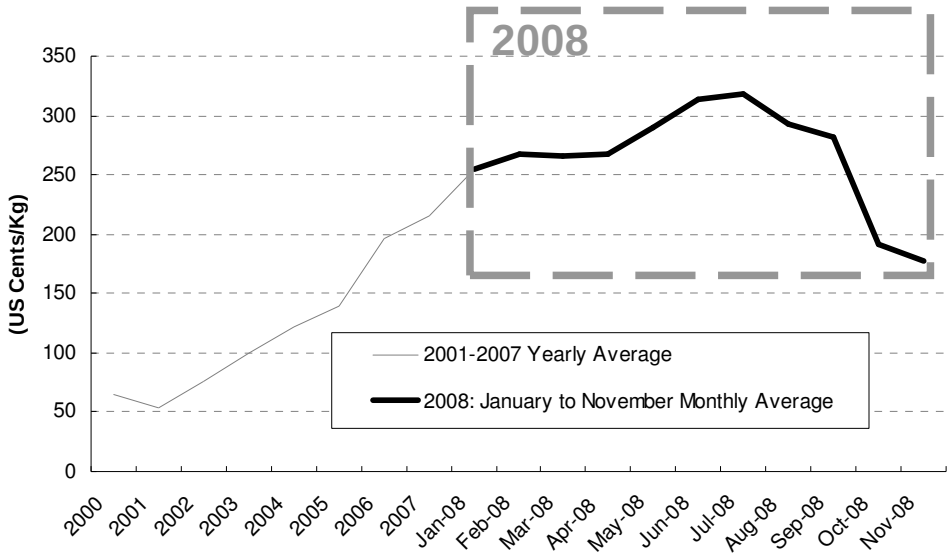
Villagers are unsure about how rubber will be integrated into their existing livelihood system. Labour shortage is a concern. If labour shortages arise, some anticipate they may reduce their shares of the proceeds in exchange for the company managing plantations.

They are wary of the uncertainties presented by such long-term investments: will the trees actually give out latex? If we get latex, will we be able to sell it? Will the investors give us a good price?

In remote, mountainous areas, where villagers are relatively new to commercial

renege on contracts, creating considerable losses for the industry (The Nation, 6 November 2008). At Ban Oudomsin, a latex producing village in Sing District of Luang Namtha, villagers saw collection prices decrease from 7-8 yuan/kg early this year to a current 2.5 yuan/kg. At Wan Jing Dai, a Dai (Leu) village in Jinghong Municipality, Yunnan, villagers report a 50% drop in the farm gate prices of liquid latex compared to this year's peak.

Figure 10. MRB FOB NOON PRICES FOR SMR20 (US Cents/Kg)



Source: Malaysia Rubber Board, 2008.

Recent market trends underscore that rubber is a highly volatile commodity subject to the uncertainties of the global economy[32]. Yet, Chinese investors in Lao PDR are generally confident about the long-term prospect of rubber, noting:

> **Price troughs are temporary. Investors remain confident in the long-term economic growth in China and therefore robust demand for natural latex.**

Large investors working under the poppy replacement program have tax and tariff export quotas guaranteed by the Chinese government, so even if China was to temporarily stop rubber imports in order to protect domestic producers, the move will disadvantage informal investors and Lao companies/villagers before it affects formal Chinese investors.

The investors are, in fact, much more concerned with these possibilities during favorable market conditions:

- **Villagers will renege on contracts and not sell to them.**
- **There will be an oversupply of traders and middle agents who will drive up the collection prices. Investors prefer to have enforceable exclusive collection rights among Lao villagers.**

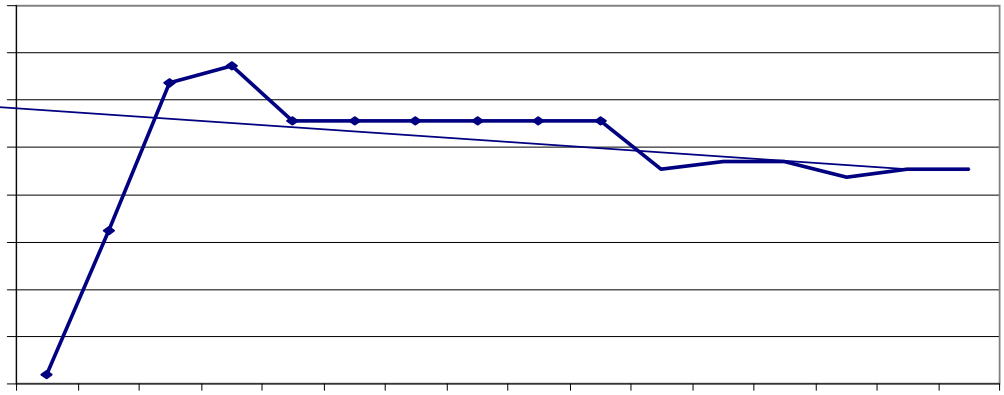
It should be noted that key stakeholders in the China-Lao rubber sector are not exposed equally to potential market risks. While most formal Chinese investors are partially shielded from market volatility through quotas and subsidies, these options are not available to Lao villagers and individual investors. Under the China-ASEAN FTA, Lao PDR obtains preferential tariff rates for a wide variety of agricultural exports, but natural rubber is not included to our best knowledge. This makes it all the more important to ensure credit provision and encourage income diversification among villagers to weather market fluctuations.

4.12 Opportunities, challenges, and incentive-based approaches

Synthesizing the findings of previous sections, we conclude that the China-Lao transnational linkages present a number of opportunities as well as challenges to the Lao rubber sector. The observations below not only apply Chinese investors in rubber, but also have broader relevance for foreign investments in the Lao resource sector.

4.12g16UES/8-SR vx,/SAES-ROIF,E67FA6poIAEA6SAApf

After the collapse of the French colonial regime, the north of Vietnam was controlled by the government of the Vietnamese communists, while the south was controlled by a regime supported by the American Government. In the south, the original French colonial owners of the rubber estates had been replaced, but changes in ownership produced little to no effect on the direction of rubber development and rubber plantations expanded in southern Vietnam at a more rapid rate. During this period, the estates in the south of the country planted about 50,000 ha of rubber (General Statistics Office (GSO), 1976). The Northern Vietnamese government also attempted to boost rubber plantations in this period. Statistical data shows that the area of planted rubber in the north increased from 187 ha in 1960 to 4528 ha in 1975 (please see Figures 11 and 12 below).



Source: GSO, 1976

Source: GSO, 1976

After reunification in 1975, the new socialist republic of Vietnam, based on the idea of constructing a modern agricultural production system, promoted rubber plantations on a

for rubber development. For example, households became recognized as independent economic units, and were then allocated land with their own rights in deciding what kind of crops or trees that they want to plant on their land. Further, their products could now be sold freely in the market. As a result, thousands of households in the upland areas of Vietnam have planted rubber in order to earn a better income. According to a number of recent reports (for example, Hung, 2007), 46% of the current rubber area in Vietnam is planted by households, contributing around 34% of the total amount of rubber produced in 2007. VRG (2006) estimates that local households earn about US$1,500 per year from one hectare of planted rubber.

"Renovation" policies also recognized state-run farms as economic organizations and allowed them to carry out business activities and investments based on the calculation of economic benefits rather than government-directed policies. Due to this change in policy, most of the state-run farms modified the way that they develop rubber plantations. A number of rubber companies in the south enlarged their plantation area through cooperation with state-owned enterprises with suitable land for rubber plantations in the north. Meanwhile, other companies opened up plantations in remote areas in the Central Highlands or the northwest region of Vietnam through applications to the provincial authorities or through agreements with local households that were allocated land during "renovation".

At the same time, Vietnam has strengthened its trade relationships with countries around the world, allowing rubber producers to sell their products to different markets with better prices. Vietnam's rubber products are sold to 50 countries, and currently the ten largest importers of Vietnamese rubber are: China; South Korea; Taiwan; Germany; Russia; the United States; Japan; Malaysia; Hong Kong; and Singapore (Ministry of Finance, 2008; GSO, 2008). About 60% of Vietnamese rubber is exported to China and 23% to the other nine top importers (please see Table 8 for more detail about rubber exports). The major exported products are natural latex and primary processed latex, such as SVR 1, SVR 2, SVR3, SVR L, SVR3L, and SVR 10. Annually, the exported value of these products accounts for more than 90% of Vietnam's national exported value of rubber products.

In Vietnam today, rubber is seen as one of the country's most important agricultural activities. The rubber sector, in the view of the Vietnamese government, has played an

1MaYKwA'143MrYw'A

Table 8. Ten largest importers of Vietnamese rubber sector and their imported volume
(Unit: 1,000 ton)

No.	Country	2000		2001		2002		2003		2004		2005	
		Vol.	Market share	Vol.	Market share	Vol.	Market share	Vol.	Market share	Vol.	Market share	Vol.	Market share
I	Total exported volume of the country	273.4	100%	308.1	100%	454.8	100%	432.3	100%	513.3	100%	587.1	100%
II	Ten largest importer of Vietnamese rubber sector												
1	Russia & CIS	19.5	11.2%	15.4	5.0%	7.6	1.7%	14.1	3.3%	15.1	2.9%	19.2	3.3%
2	Singapore	33.7	19.4%	42.6	13.8%	63.5	14.0%	27.6	6.4%	6.3	1.2%	2.7	0.5%
3	Germany	12.4	7.2%	13.6	4.4%	14.4	3.2%	17.8	4.1%	18.4	3.6%	20.7	3.5%
4	China	111.1	64.1%	94.7	30.7%	162.9	35.8%	196.2	45.4%	303.5	59.1%	369.8	63.0%
5	Taiwan	13.3	7.7%	17.7	5.7%	23.9	5.3%	21	4.9%	18.8	3.7%	22.5	3.8%
6	Malaysia	4.6	2.7%	17.3	5.6%	28.4	6.2%	12.3	2.8%	5.6	1.1%	6	1.0%
7	Hong Kong	8.3	4.8%	5.3	1.7%	13.4	2.9%	11.4	2.6%	27.8	5.4%	4.3	0.7%
8	Japan	27.2	15.7%	8.4	2.7%	15.4	3.4%	11.3	2.6%	13.3	2.6%	11.5	2.0%
9													

Cambodia. The four Lao plantations have reportedly reached an area of 30,000 ha, and preparations are underway for a processing plant in Champassak[34].

The second largest Vietnamese investor in overseas rubber plantation is Dak Lak Rubber Corporation (DAKRUCO). DAKRUCO is a state-owned enterprise under the Dak Lak Provincial Government. The company includes seven smaller rubber companies, managing 14,000 ha of rubber, as well as processing facilities, two Lao-based companies and a quality control centre. DAKRUCO produces around 15,000 tons of natural rubber each year. This company is implementing two projects in Lao PDR[35]: a rubber plantation and a processing project. The Lao investment was launched in 2005, with 8,000 ha of rubber planted so far across Champassak, Saravan and Attapu provinces. DAKRUCO has also started to construct a primary rubber processing unit. According to the project plan, the first planted rubber area will be harvested in 2010. The processed rubber will be sold to consumers in the United States, South Korea and the EU.

The third main Vietnamese investor in overseas rubber plantations is Hoang Anh Gia Lai Group (HAGL). This is a privately owned group, which has only recently turned its attention to rubber. In Vietnam, HAGL has invested in rubber plantations in Gia Lai and Kon Tum provinces. This group has two rubber plantation projects in Lao PDR, with the first started in 2007 (a cooperative project between HAGL and VRG). The project has planted 1,800 ha of rubber and it aims to have 10,000 ha planted by 2012. Another HAGL investment in a rubber was approved by the Government of Lao (GoL) in mid-2008. Beside rubber plantation projects, HAGL also has a number of projects relating to wood processing, mining and fertilizer production, and the company is preparing plans to plant forests in Lao PDR in order to provide timber for its wood processing factories in both Lao PDR and Vietnam.

In addition to these key, large companies, there are numerous other Vietnamese investors who are involved in rubber plantation projects in Lao PDR. Information from interviewees indicated that, for example, there are a number of joint ventures, Vietnamese military units and a pharmaceutical company involved in Lao rubber plantations. However, there is little to no public information available (nor is there an over-arching agency that collects such information) on many Vietnamese investments overseas.

[34] VRG is also involved in another four joint venture rubber plantation projects with other Vietnamese companies, two of which are in Lao PDR and two in Cambodia.
[35] DAKRUCO has also initiated a rubber plantation project in Cambodia. This investment was only started last year and is currently in the site preparation phase.

transportation of harvested rubber to processing units, and so on). This is particularly pertinent for Vietnamese investors, as there is a significant scarcity of land for cultivation or large-scale developments in Vietnam.

Flowing from this, the main priority of Vietnamese investors in the Lao rubber sector is to develop plantations and the primary processing facilities in areas with "good soil conditions" intensively and at a large scale. This priority, as explained by the interviewees, is the most critical one because intensive rubber plantations at a large scale can help the investors to reduce costs, and improve efficiency.

The social and economic development of plantation areas is another stated priority for the investors interviewed in this study, and not one commonly thought of in the context of Vietnamese overseas investments. Interviewees noted that socio-economic development was a priority in order to support continued production and profits from investments in plantations. It is claimed that all the rubber plantation projects in Lao are committed to using local labour, constructing infrastructure and supporting local development plans. Some projects have invested in local road construction, local schools and housing for employees. In practice, around 90% of activities in the establishment and running of plantations are carried out by local laborers. Interviewees also noted that contracted laborers are allowed to grow agricultural crops for three years after the plantation is established to ensure continued income.

The reduction of negative environmental impacts produced by rubber plantations is also seen as a priority, and some projects have applied techniques to control soil erosion and to protect forests and watershed areas. However, discussions with key informants also showed that the environmental impact statements in the feasibility studies of approved projects are generally very simple. Further, most plantation projects do not then apply techniques to reduce environmental impacts on the ground. Therefore, it can be inferred that claims of attempts to reduce environmental impacts are most likely aimed at obtaining land concessions and approvals for projects.

Based on discussions with VRG and DAKRUCO representatives, investment projects in Lao PDR follow a similar series of steps to obtain approval and begin operations. These are detailed below:

The investors look for suitable plantation areas in Lao PDR, utilizing relationships with both Lao and Vietnamese authorities;

Second, the investors establish an overseas subsidiary and apply for an overseas investment license from the Vietnamese government;

After receiving the overseas investment license, the newly formed rubber company applies for permission from GoL to carry out feasibility studies and begins designing a project proposal. The feasibility study is usually carried out within two or three months, and is mainly focused on collecting secondary data regarding land conditions, policy documents and administrative aspects. Interviewees also noted that current Lao laws require each plantation area to be less than 10,000 ha, and that each project includes a rubber plantation and a processing component;

A project proposal is then formulated using the collected secondary data. In general, the research team found that this does not involve any study of environmental impacts and there is no mention of negative impacts in the project proposal. The proposed project then needs to be approved by GoL. These initial steps to gain project approval generally take at least one year for projects with a large investment[37].

generally prepared with modern machinery and equipment, such as chain-saws, tractors and trucks. Most of these machines and technical workers are brought to Lao from Vietnam.

Vietnamese investors also generally set up plantation units and establish a management board for each plantation unit. Each management board comprises five to six people, including the director, the vic

clearance of forests that this indicates may create negative impacts on the natural

problems, such as the formation of relatively vulnerable communities, increased human trafficking and health problems including sexually transmitted diseases.

5.7 Conclusion

This section has attempted to enhance the current understanding of Vietnamese investments in rubber plantations and processing in Lao PDR, a topic that previously has received relatively little attention. It has explored the major driving forces, priorities, resources and modes of operation, as well as challenges and opportunities associated with Vietnamese investments in the Lao rubber sector. The major actors involved in these investments are both state-owned and private companies and groups, and the main driving forces motivating the recent flow of investment are the high prices for rubber, the political support available in the close Lao-Vietnamese relationship and the relative abundance of land suitable for rubber cultivation in Lao PDR. The major priority for a number of Vietnamese investors is to develop rubber production at a large scale, while supporting socio-economic development and reducing negative environmental impacts also receive attention.

Although this study shows that Vietnamese rubber projects in Lao PDR have some clear positive impacts, such as creating jobs and increasing income for local people, and providing access to new knowledge and skills in cultivation, there are also a number of challenges and threats that require further consideration. The major environmental threats of soil erosion, biodiversity loss and the degradation of water

6. DISCUSSION: CHALLENGES FOR SUSTAINABLE AND EQUITABLE RUBBER DEVELOPMENT

support, if provided, so far has also focused on providing basic technical knowledge about rubber and addressing more immediate livelihood concerns.

Fourth, real concerns have been raised in both the south and the north of the country over the rapid move to single crop cultivation, with the associated problems of increased vulnerability for farmers and food insecurity. The current models for rubber cultivation in Lao PDR are relatively inflexible, either because they are monoculture concessions or because companies need to ensure maximum returns in more risky smallholder, contract farming systems. Although Bokeo Province and some Vietnamese investors are actively encouraging intercropping, there is an insufficient understanding of the scope or appropriateness of intercropping or other diversified, agroforestry models. General accepted wisdom is that: a) cultivators can only intercrop certain crops in first 3-4 years of a rubber plantation; and b) that rubber will lead to increased incomes allowing farmers to buy food they would have previously have grown. Encroachment of rubber crops on protected and non-protected forests further exacerbates potential food insecurity, given the role of NTFPs and wildlife in supplementing rural livelihoods and providing a safety net in times of food shortages.

These issues pose challenges to ensuring that Lao PDR is able to fully benefit from the use of its land and other natural resources in developing rubber plantations and processing facilities. The current trajectory of rubber development in Lao PDR also raises questions about whether the costs to the country's natural capital and rural livelihoods will be matched by the benefits of rubber. The following section of this study will examine pathways and approaches which could promote the more sustainable development of rubber in Lao PDR.

cultivation. The following section will examine private sector, government and civil society approaches and initiatives aimed at encouraging "best practice" in the rubber industry. This includes: an assessment of the status of CSR in the lower

although CSR activities have become increasingly commonplace in Asia, it does not mean that that growth has been uniform. Indeed the vast majority of robust CSR

of operation are appropriate and really address potential or actual problems associated with operations in the local environment.

7.1.1 Challenges for CSR in Lao PDR

CSR in Lao PDR is a very new concept, and few corporations have embraced it. There are a number of other gaps or challenges for the promotion and implementation of CSR in Lao PDR. First, a lack of stakeholder involvement and low capacity amongst CSR actors and regulators are common barriers towards CSR implementation in Asia. These issues are even more acute in Lao PDR, where a lack of understanding of CSR and its benefits is prevalent not just among companies but also among actors who facilitate CSR activities, such as industry associations and government.

An additional challenge is Lao PDR's significantly uneven playing field among companies, where only a small proportion practice CSR and act responsibly, and creating disincentives to improve performance. As in other countries in the region, the Lao economy is also dominated by small and medium sized enterprises (SMES) that lack the motivation, resources and access to information and capital necessary for the implementation of CSR activities.

The promotion of CSR in Lao PDR at this stage is also hindered by the absence of a supportive policy environment. This refers to both the lack of policies to encourage better corporate citizenship, as well as the inconsistent implementation of existing regulations.

Finally, the Lao market and trade relationships are characterized by a relative lack of linkages between buyers, supply chains and markets in destinations sensitive to CSR. In effect, this means that most exports go to markets where environmental and social perb41MaYK mancatiosuppgeciaed e tK3A39103Mbb'MiY91A41'MsYK9.A34.9M YbA.3bb1bb.MoYK YK r on iavosemenR,fitsoicio

hydropower are all dependent on natural resources. Consequently, more attention has been paid to the environmental and social impacts of activities in these sectors, and due to a long history of campaigning internationally, there are a wide range of tools and strategies available to companies operating in these sectors to improve their performance. In addition, international donor and financial institutions play an important role in financing and monitoring projects, and can draw on international experiences and best practice to "lead the way".

gas or other pollutant emissions, and external, philanthropic activities unrelated to

An analysis of company and media reports shows that the top tire producers have clear CSR policies and statements, and have taken on the challenge of improving the manufacturing process, reducing fuel consumption and promoting recycling. However, excepting the case of Michelin, the social and environmental impacts of rubber plantations are rarely addressed and sustainability considerations are generally not fully integrated into the whole supply chain. This may be partly due to the fact that rubber has a long and complicated supply chain, where tire and other manufacturing companies have few direct connections to a product grown mainly on smallholder plantations[42]. However, a long and complex supply chain characterizes the global forest products trade in general. In a clear contrast to the rubber industry, growing concerns over the social and environmental impacts of illegal and uncontrolled logging has prompted an increasing number of governments and companies to seek to certify forest operations and wood products.

number of recommendations. It found that, although the market for ecologically sensitive natural rubber products was almost non-existent at that time, "[u]sing certification to provide incentives for the conservation of smallholder agroforestry in Indonesia has good long-term perspectives" (Gouyon, 2003: 34). Indeed some companies and rubber industry associations have already begun to market natural rubber as "environmentally friendly", particularly for consumer products such as latex mattresses and balloons. The author notes, however, that certification remains complex for rubber, and may not necessarily advantage more diverse smallholder plantations over large-scale monoculture plantations. Gouyon recommends additional studies to determine potential markets, partners, institutional arrangements and standards.

There are indications, however, that this assessment of the relative lack of market incentives to pursue certification of rubber products is undergoing some change. A number of rubber growing and processing companies in the Asia-Pacific region have achieved Forest Stewardship Council (FSC) certification. These certificates include both forest management and "chain of custody" (CoC) certification for traded timber products. FSC is the world's fastest growing forest certification system, and has now certified more than 100 million ha of forest in 79 countries (FSC, 2008). An examination of the FSC database shows that more than 20 companies are listed as holding management or CoC certificates for rubberwood and/or latex products. The majority of these companies are rubberwood and latex plantations and producers in Sri Lanka, Malaysia, Thailand, China, India and Vietnam, but the list also includes retail and processing companies in the United Kingdom and Pakistan.

There are several other certification and market-based incentive schemes that may

(CDM) of the Kyoto Protocol. Although the authors were unable to find any projects

and-burn" practices, allowing rubber to grow with natural secondary vegetation, as well as timber and fruit trees (Gouyon, 2003). Although most complex rubber agroforests have disappeared in Malaysia and Thailand, and are under threat in

some difficulties in the promotion of RAS models against more profitable and productive monoculture plantations. There is a delicate balance between the economic, social and environmental benefits provided by RAS, and the economic decisions by farmers and investors often mean that plantation style operations are preferred. Challenges in the promotion of RAS include:

> **Lower productivity. Despite improvements in productivity through the selection of better planting material and more intensive maintenance of rubber trees, RAS still produces less latex than monoculture rubber plantations. Improved productivity also requires increased inputs in terms of labour, resources and technical knowledge.**

agroforestry. For example, Viswanathan and Shivakoti (2008) write that the Indian Rubber Board provides certain subsidies and support on preconditions that maximize productivity in monoculture plantations, such as minimum numbers of seedlings per hectare and the removal of non-rubber trees and crops.

Agroforestry approaches are not new to Lao PDR and rubber agroforestry has been presented as an alternative to monoculture plantations[47]. There are also a number of projects underway in the country to test and promote various agroforestry approaches, including: German Agro-Action's trialing of agro-forestry systems in two districts in Oudomxay; NAFRI research into agroforestry cropping systems; and the ADB Smallholders Project (SWGUp, 2008). It has been shown that smallholder rubber cultivation is profitable in northern Lao PDR (Manivong and Cramb, 2007), and current mixed, slash and burn farming practices are suited to the introduction of RAS. The incidence of poverty and food insecurity in Lao PDR also suggests that RAS should be further studied and promoted in order to reduce risks for farmers. The 2007 Lao National Poverty and Social Impact Assessment (PSIA) identified the rapid commercialization of agriculture and opening up of remote areas as major causes of poverty; the assessment found that vulnerability increases with the loss of land and livestock, and decreased access to forest resources (EU, WB & GoL, 2007, in SWGUp, 2008). Malnutrition and food insecurity remain widespread in Lao PDR, with the World Food Programme finding that on average 13% of rural household are food insecure, and another two thirds are at risk of food insecurity if they experience one or more livelihood shocks in any given year (WFP, 2007, in SWGUp, 2008).

consumption. The preferences of investors from China and Vietnam will influence the rubber production models used in Lao PDR.

At the same time, however, Chinese and Vietnamese rubber companies may be motivated by the business case for the implementation of more sustainable rubber cultivation and production practices. Investors need to ensure the long-term operation of their plantations in the face of uncertainty and potential bans on further rubber development due to growing concerns over social and environmental problems. The GoL has also indicated that it wishes to consider its options regarding the development of the rubber sector.

Guidelines and guidance

Technical and managerial guidelines developed by governments and civil society organizations, as well as extension services and other kinds of support, also influence the models and outcomes of rubber development. The guidance and support provided to rubber farmers and companies can affect the balance between monoculture and intercropping, small-scale and large-scale development, cultivation and processing. In the best cases, they can also act as tools to ensure the viability of rubber plantations as well as to protect the environment, farmers and workers rights.

China, with its long history of rubber development, has developed a number of guidelines and regulations for rubber development, both at the national and provincial levels. Discussions with interviewees in Xishuangbanna in Yunnan Province indicate that the guidelines play an influential role in determining where and how rubber is developed in the region. The Xishuangbanna Dai Autonomous Region Natural Rubber Management Regulation[48] was issued in November 2005 and sets out the purpose and scope of rubber cultivation in the region. It states that fpraub66w.MbYK6A9'.w.Mb

China's Technical Guidelines for Rubber Cultivation (1993) is a longer standing set of guidelines issued at the national level by the Ministry of Agriculture. These guidelines set out in detail technical parameters and processes for site selection,

plantations as opposed to more diverse agroforestry approaches (Viswanathan and Shivakoti, 2008).

In Thailand, a number of organizations and government departments are involved in providing support and extension services to rubber growers, such as the Thai Rubber Association and the Rubber Research Institute of Thailand. As in India, Thailand's rubber sector is dominated by smallholders. According to Kaiyoorawong and Yangdee (2008), two key government agencies have driven the development of commercial rubber tree plantations in Thailand: the Office of the Rubber Replanting Aid Fund (ORRAF), under the Ministry of Agriculture, which has supported farmers to grow rubber according to technical guidelines; and the Royal Forestry Department, under the Ministry of Natural Resources and Environment, which has issued concession rights to use degraded forest land in National Forest Reserves (Kaiyoorawong and Yangdee, 2008). ORRAF has three main objectives: 1) to encourage the replanting of farmland with improved rubber clones as well as high-value tree species; 2) to help farmers to establish new rubber plantations, and; 3) to encourage smallholder rubber producers to form cooperatives (Albarracín et al, 2006). Examples of the support provided by ORRAF include[50]:

> **ORRAF Replanting Program: Focused on southern Thailand, this program involves the provision of support to cover the initial costs of clearing, preparing land and rubber planting. ORRAF provides 7,300 baht per rai[51] for seven years (i.e. until farmers can begin tapping).**

As in India, the support and extension services provided in Thailand have been influential over the direction of rubber development. To ensure the competitiveness of the Thai rubber sector, the Thai Government has regulations in place to control plantation zoning, rubber species used and rubber prices; the provision of aid through ORRAF has also led to the promotion of rubber monoculture (Kaiyoorawong and Yangdee, 2008).

Extension for rubber has also been established in Lao PDR, although the level of support provided to farmers has not reached that of larger rubber-producing countries. The GoL extension service operates at the national, provincial and district levels, with a presence in all 17 provinces and 141 districts in the country. At the national level, the National Agriculture and Forestry Extension Service (NAFES) was established in June 2001 as an apex body for extension. NAFES does not directly manage a national extension system but provides guidance, coordination of extension initiatives, capacity building and the dissemination of best practice (SWGUp, 2008). According to the NAFES website, it does not provide credit or

suspension or ‘go slow’ on further rubber development until several key questions can be answered:

> **How much rubber does Lao PDR want, where is suitable to grow it, and how will the country provide the labour to manage and h**

well as promoting non-environmentally friendly logging practices and monoculture plantations, villagers lose ownership and access to agricultural and forest land resources. Earning a relatively low, and seasonal,

than an institute, the formation of farmers associations at the local level, should be encouraged. Another option is the formation of an export association to build up trade relations and directly supply rubber consumers overseas.

Consider agroforestry options: More detailed analysis of alternative models of rubber cultivation and approaches to encourage sustainability should be carried out. This study reviews several options, such as rubber agroforestry, but further study of their applicability in Lao PDR is required. In addition to current research and advocacy initiatives on agroforestry in Lao PDR, we recommend further testing of intercropping of agricultural and tree cops with rubber specifically. It is also important to study of the environmental, socio-economic, marketing and institutional factors relevant to utilizing such a model in Lao PDR.

Establish investor protection and improve investment climate: It is easy to blame investors for unsustainable practices. However, a precarious investment climate is equally responsible. Almost all Chinese investors, for example, report fears that the Lao government as well as villagers will change policies or renege on contracts. When investors are unsure about the long-term security of their projects, their priorities are to make quick gains and they are less motivated to invest in the sustainable development of rubber.

Encourage CSR among local and foreign investors: CSR is an important complement to government and civil society efforts to promote sustainable development. In order to facilitate the spread of effective CSR in Lao PDR, this study recommends that relevant government, company and civil society actors to encourage a multi-stakeholder approach towards CSR promotion and implementation. CSR in Asia, including in Lao PDR, has for the most part evolved in response to powerful external forces, such as the requirements of investment and donor organizations as well as the legal and regulatory arms of government. However, greater stakeholder participation can help to enhance the quality of CSR activities by making society's needs and desires more accessible to the private sector. Companies also benefit because communities which are given a voice in the decision-making process feel that they have a larger stake in the well-being of that company's business activities. There is also a need for active capacity building and networking amongst CSR actors and stakeholders, including among the regulatory institutions that monitor trade, investment and corporate behavior in Lao PDR. Learning exchanges between Lao PDR and its neighbors could play a key role in building awareness of the role of CSR as well as regulatory capacity.

<u>Encourage competition, and peer and public monitoring:</u> The Lao authorities may opt to encourage competition among investors based on their adherence to sustainable practices. Businesses should not only be evaluated on how many

REFERENCES

Section 3: Lao PDR

Ministry of Industry and Commerce. 2006. Statistical data on Exports and Imports (not published).

Northern Lao Industrial Economic Development and Cooperation Planning Preparation Group. 2008. Planning for Industrial Economic Development and Cooperation in the Northern Part of Lao PDR, 2008-2

http://www.regional.org.au/au/apen/2006/refereed/1/

APPENDICES

Annex 1: Key informant interview guidelines for Lao PDR field research, carried out by the National Economic Research Institute (NERI)

Annex 2: Key informant interview guidelines for China field research component, carried out by Weiyi Shi and Guifeng Zhong

Annex 3: Key informant interview guidelines for Vietnam field research component, as carried out by CODE

Annex 4: Report of IUCN-NAFRI-ERI study tour to Xishuangbanna, Yunnan Province, October 2008.

Annex 5: Lists of allowed and prohibited chemical fertilizers and insecticides in Lao PDR

Annex 6: Investment approval process in Lao PDR

Annex 7: Content and Format of an IEE Report for Development project in Lao PDR

Annex 8: Corporate social responsibility in the Mekong Region and Lao PDR

Annex 1: Key informant interview guidelines for Lao PDR field research, carried out by the National Economic Research Institute (NERI)

1. Guideline for interviewing companies or HH involving in rubber plantation

I. General information on companies/HH involving in rubber plantation

- Date of establishment:……..……..(in case of family production, please, describe the date of starting the plantation)
- Kind of company (describe on of the option below)…….

1. family production
2. Lao private enterprise
3. Foreign enterprise, please describe the nation
4. Join venture, please describe the share of capital
   -Lao……..percent
   -Thai……..percent
   -China…….....percent
   -Vietnam…….percent
   -Others…….percent
   Total: 100 percent

II. Main reason for investment decision (describe one or more answers below)

1. Highest profitable investment
2. Market security
3. Receiving external funding, if any, please describe source of the fund……
4. Lowest cost
5. Easy access to land
6. Following the trend

III. Investment volume (US$)

Current	2010	2015	2020	2025

IV. Production areas (ha)

Current	2010	2015	2020	2025

V. Labour needed (person)

Current	2010	2015	2020	2025

VI. Estimated production outcome (kg/year)

Current	2010	2015	2020	2025

……
……
……
……
……-
-Access to labour, yes or no……if yes, describe the details:……..
……
……
……
……
……
……
-Access to information, yes or no……if yes, describe the details:……
……
……
……
……
……-Access to market, yes or no……if yes, describe the details:…….
……
……
……
……
……
……
-Access to investment license, yes or no……if yes, describe the details:……
……
……
……
……
……
……
-Investment mechanism regulation and lows, yes or no……if yes, describe the details:
……..……..……
…
……
……
……
……
……
-Investment mechanism regulation and lows, yes or no……if yes, describe the details:
……..……..……
….
……
……
……
……
……
-Concerning officers, yes or no……if yes, describe the details:……..

……………..……………………………………………………...……………………………
…
………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………
…………
-Other constrains, yes or no………………if yes, describe the

3/……
…
……
…

2. Guideline for interviewing agriculture export-import companies

I. General information on export-import company

- Date of establishment:……..……..(in case of family production, please, describe the date of starting the plantation)
- Kind of company (describe on of the option below)…….

1. SOE
2. Lao private enterprise
3. Foreign enterprise, please describe the nation
4. Join venture, please describe the share of capital

-Lao……..percent
-Thai……..percent
-China…….....percent
-Vietnam…….percent
-Others…….percent
Total: 100 percent

II. Estimated agriculture value (US$)

Item	2005	2008	2010	2015	2020
Rubber*	**0**	**0**			
Non rubber					
Total					

Thai					
Others					
Total					

V. Trade structure in the domestic country (agricultural product buying)

Market	Weight, describe in percent
Own product	
Directly from framers or agriculture companies	
Local traders (informal traders)	
Local trading companies	
Others	
Total	**100**

VI. Contract farming with local producers or traders

Contract partners	0=no 1= Verbal contract 2=Contract in writing	If 1 or 2, describe contract cost (US$)

IX. Market for agriculture products in the provinces

-Number of agriculture product buying companies
-Is there some cooperation among the companies?
-Number of agriculture product suppler
-Is there some cooperation among the suppler?
-Price mechanism?
-Is there some intervention policy from the government site?

68419A.)250]TJ ccieXisictpcoXo Co0808Xnsfor Ngriculturetpade/export, especially f.[ )-4.88632( )-4.88632( )

……
……
-Completion, yes/no……if yes describe
details:……
……
……
……
……
-Quality of products, yes/no……if yes describe
details:……
……
……
……
……
-Other constrains, describe
details:……...
……
…...
……
……
……

XI. Suggestion to improve your investment climate (Basically, this should be based on investment constrains discussed above)

1/……
……
……
2/……
……
……
3/……
…
……
…

XII. Suggestion to improve environmental protection and sustainable development in rubber plantation sector

1/……
……
……
2/……
……
……
3/……
…
……
…

XIII. Suggestion to improve social protection

1/……
……
…….

2/……
……
……
3/……
…
……
…

3. Guideline for interviewing government officers/policy makers who are responsible for function related to rubber plantation

I. Plantation project promotion policies and mechanism

1.1. Access to land for plantation project

n t t t on

✔ t on

M c n

1.2. Access to credit for rubber plantation project

n nc n t t t on o ✱ c t o nt t on oJ ct

oc to cc t c t

c c o ot on o cy

II. Plantation project approval process

n t t t on n o ✱ n t oc

✔ t on n t nt t on on t o✔ t to c o t nt t on o

o cy

A o c n

A oc

III. Market for agriculture products in the provinc

t					
Sum of credit for plantation project (US$)					

VI. **Expected investment trend (select one of possible option below)**

1. Rapid increasing…….....
……
……
……
……
2. Increasing:……
…….
……
……
……
3. Remaining the same:……
……
……
……
4. Declining:……
……
……
……

VII. Suggestion to improve environmental protection and sustainable development in rubber plantation sector

1/……
……
……
……..
2/……
……
……
……
3/……
…
……
…

VIII. Suggestion to improve social protection

1/……
……
……
2/……
……
……
3/……
…

9. How much latex does China import from Lao PDR every year (if possible, collect quantity and price over time) and typically in what form? Who are the major importers? What tariffs and quotas is Lao latex subject to and how do these tariffs and quotas compare to those imposed on Thai or Malaysian latex?

10. How much latex has been sold to China under poppy replacement programs? Compared to rubber investors who do not quality for poppy replacement (typically small individual investors) and Lao farmers, what advantages do poppy replacement companies have in selling latex back to the Chinese market? Are they always guaranteed sufficient quota to import their latex production back to China? How are these quotas decided and granted?

11. What oversight mechanisms are in place or planned to monitor Chinese rubber companies in Lao PDR? Is there physical surveillance of plantation areas? If so, what

3. How long have you planted rubber in Lao PDR? In which province(s) and location(s)? Covering how many villages? How many

13. Do you bring laborers from China? Do you face restrictions, from the Chinese as well as Lao side, on how many laborers you can bring? How much do you typically pay Chinese laborers? Have you faced a labor shortage? Do you expect labor shortage to arise in the future or worsen?

14. According to the contract, what's the plantation area? Realized over how many years? Is your actual progress ahead or behind your contract plans? If you are behind, why? Realistically, do you think you will be able to plant as much as specified in the contract?

15. How do you assure the quality of the plantations? Do you give Lao villagers lessons in planting techniques?

16. If applicable, what supporting infrastructure are you building (roads, power lines etc.) to develop the plantation?

17. Have you built or will you build latex processing facilities in Lao PDR?

18. Do you receive subsidies from the Chinese government? If so, roughly what percent of your investments in Lao PDR are financed by subsidies? How is the rest financed (own investment, loans etc.)? What other policies do you benefit from (low or interest free loans, interest reimbursement, tax breaks etc)? Would your investment be viable if there were no subsidies?

19. Do you currently sell latex to China under the poppy replacement program? If you have qualified for the program, how do you obtain latex quota? If you have not qualified for the program, how do you obtain quota? Are you concerned that you may not be able to obtain sufficient quota to cover you

23. In your opinion, if policymakers were to try to improve the cross-border investment climate, what should they consider as their top three priorities (e.g. infrastructure, corruption, bureaucracy, etc.)?

24. Promoting sustainable development is a priority for both the Lao and Chinese people. What would motivate and help you to adhere to higher environmental standards (e.g. financial incentives, provision of technical support and education etc.)?

*

- Annex 2 will need to be modified slightly to adapt to the situation of informal investors (questions regarding experience with dealing with authorities and qualifying for subsidies are less relevant. It is more important to explore why informal investors have chosen to avoid the official route. Information should also be gathered on the dynamics of forming partnership with Lao border residents through kinship and clan relations).
- Field researchers may also engage rubber import and export businesses that are not directly involved in rubber planting in Laos. For those, the relevant questions in Annex 2 are 19, 20.
- The annex is structured as discussion guidelines instead of formal questionnaires based on the understanding that semi-structured interviews are often the most effective method in collecting case-based data. It may be adapted to a questionnaire if the research team decides later to also survey a broader base of investors not reached by face-to-face discussions.

Annex 3: Key informant interview guidelines for Vietnam field research component, as carried out by CODE.

1. Questionnaire for policy-maker interview

I. Questions of development of rubber plantation in Vietnam

1. What are positive and negative results of development of rubber sector and rubber plantation in Vietnam in the last thirty years?
2. What are main causes of such positive and negative results?
3. What are main targets of Vietnam's rubber sector in 2015 or further?
4. What are main advantages and disadvantages for achieving the targets?
5. Who are investors of Vietnam's rubber sector?
6. Who are prior investors in Vietnam's rubber sector?
7. Who are major consumers of Vietnam's rubber?

8-0.9(.72

I. Questions of capital, labors and local linkages of the investor

1. When is your company established?
2. What are sources of financial capital of your company?
3. Number of labour of your company?
4. Number of local households that have contracts with your company?
5. How do you work with local households?

II. Questions of the land and rubber plantation

6. Total land area of your company in Vietnam at the beginning time?
7. How can you get the land?
8. There is any change of land area in comparison w

26. How can your company contribute environmental protection, poverty alleviation, forest conservation in Lao?

26. Other comments and suggestions?

Annex 4: Rubber in the GMS – Study Tour to Xishuangbanna, P.R. China

Dates

20-25 October 2006

Organizers

IUCN Lao with the assistance of Yunnan University, School of International Studies, and the Xishuangbanna Prefecture Science & Technology Bureau.

Objectives

- To build linkages between Lao and Chinese researchers working on rubber and other plantation issues in the Mekong Region.
- To provide an opportunity for Lao researchers to see on-the-ground experiences, modes of operation and market trends in the Chinese rubber sector.
- To meet with relevant Chinese investors, officials, traders and other stakeholders.

Participants

IUCN: Ms Weiyi Shi, Research Consultant (IUCN Lao PDR)
Ms Charlotte Hicks, Private Sector Engagement Officer (IUCN Lao PDR)
Mr Somevang Nabounpheng, Director, Luang Namtha WREO

NAFRI: Dr. Somboun Xayavong, Agriculture & Forestry Policy Research Center (AFPRC)
Mr. Phanxay Ingxay, AFPRC
Mr. Sonephome Xayachack, AFPRC
Mr. Bounthieng Vilavong, AFPRC
Miss Viengkham Xayachek, AFPRC
Mr. Keovilay Sysouvanna, AFPRC

Center (ETC) 0 Tj -228.378 -12.96 Td [(M)-6.33121(i)0.873046(s)-5.37229(s)-5.37229. aovin Souphonpacdy, E
Mr. Alomlangsy Ravong, ETC

Yunnan
Universi Dr. u anwen ice-ean, School of Int

Mr Sun Lei, School of International Studies

S&T
ureauMs ao Lhong, Xishuanganna Siene & tec oogy Bureau

Programme

20 Oct (Mon)	Drive to Oudomxay, overnight in Muang Xay
21 Oct (Tues)	Drive to Jinghong, be at border by 3 pm Overnight in Jinghong

- Intercropping in China usually involves pineapple, tea or corns in the first 4-5 years. Peanuts, yellow beans (huangdou) and other legumes are also used to stabilize the soil.
- There are numerous guidelines regarding soil erosion eg slope, planting techniques, holes, etc. If serious erosion occurs, rubber cultivation will not be allowed to continue.
- Not including land cost, rubber plantations generally cost about RMB 300 per ha per year (investment in planting, fertilizer, labour, etc).
- Those who plant rubber in protected areas face large fines and the removal/destruction of their crop.

2. Visit to Dai village rubber smallholders

Following the workshop, the Lao delegation accompanied by Qu Jianwen, Gao Lihong, Zhong Guifeng and Sun Lei visited the rubber growing village of Wanjingdai, not far

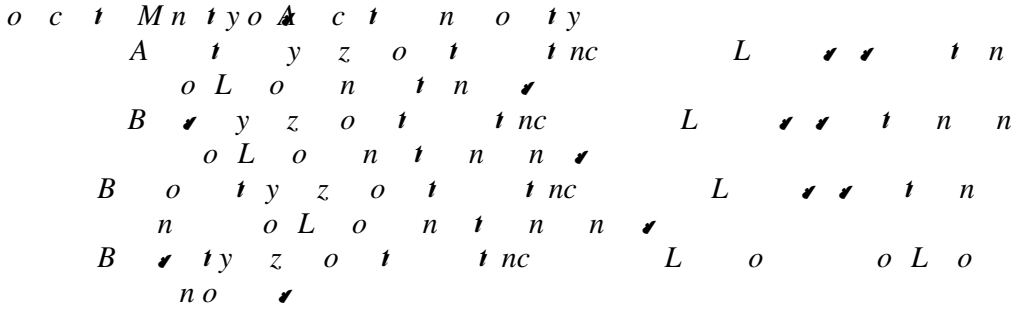
- The plant is undertaking a Cleaner Production audit, due to be completed by the end of 2008. (China's Cleaner Production Promotion Law requires certain companies to develop a CP plan and submit to an audit to improve their triple bottom line).
- An improved water treatment facility, which that runs water through plant terraces, as well as recycling, were instituted under its CP plan.

4. Linkages with Chinese stakeholders

8	Toxaphene	21	Daminocide
9	Ethyl Parathion	22	Binapaccryl
10	Leptophos	23	Dinoseb
11	BHC	24	Methyl bromide

12

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



- An environmental monitoring program

In case that the project is required to undertake an EIA, draft TOR on EIA must contain:

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

VI. Description of public involvement activities during IEE

Annex 8: Corporate social responsibility in the Mekong Region and Lao PDR

In many instances corporations have put in place operations which exceed local regulatory requirements or expectations. This corporate citizenship has been recognized by consumers who in turn consume more of their products while demanding higher standards from other corporations. For example, research cited by APEC reports that in one of Asia's developed economies over 60% of consumers actively consider CSR-related issues when making purchasing decisions (APEC, 2005). Although CSR's effect on consumer behavior is at this stage largely limited to Asia's more developed economies, it is realistic to expect that this trend will also spread as the region as a whole continues to grow. In this way, a more educated and socially conscientious market has driven the advancement of good CSR promotion in Asia. However, although corporate social responsibility activities have begun to grow commonplace in Asia, it does not mean that that growth has been uniform. Indeed the vast majority of robust CSR programs exist in the already developed economies of Japan, Korea, or Taiwan. In fact in Asia's leas

both an insufficient commitment to the concept on the part of Thai upper management across the entire spectrum of Thailand's business community, as well

implementing standards from home countries that might be above and beyond that which is the norm in Vietnam, particularly in regard to labor. These foreign investors have also taken the lead in introducing philanthropic elements of CSR to the Vietnamese economy, with very successful results both for the Vietnamese people as well as the businesses profit margin. For example, studies cited by the APEC have indicated higher average revenues and productivity, and heightened benefits among enterprises practicing CSR in Vietnam -- as much as 1.55 times, 1.47 times, and three times greater, respectively, than other firms who have not implemented CSR policies (APEC, 2005). Unfortunately there still exists a notion amongst many Vietnamese corporations that CSR is a high cost activity, and unfortunately this attitude may be holding back further progress.

Vietnam's main challenge towards promoting CSR is t

This next section highlights examples of environmental CSR programmes being undertaken by large multinational corporations in Lao PDR. The cases provided cover three major sectors of the Lao economy, plantation farming, mining, and hydropower, with one corporate example provided per sector. These cases were not chosen simply to provide examples of best practice CSR, although there are aspects of the corporate programmes described that fit that description. Rather, they demonstrate several key points about the important role CSR can play in Lao PDR and key challenges that companies need to address in the process. For example:

Good CSR practice can provide a blueprint for greater private sector involvement in economic and social development, and high-profile companies can have in promoting modes of behavior in their sector. The sectors chosen for these three cases are among the fastest growing in Lao PDR, providing significant contributions to Lao GDP while having substantial impacts on the environment and communities.

There remains a tendency for companies to approach CSR as an effort external to their own operations. Best practice CSR includes measures to reduce any negative social and environmental impacts of a company's own operations, rather than simple philanthropy aimed at contributing to socio-economic development or environmental protection in the countries in which they operate.

Large, multinational companies with strong CSR programmes at home and in other markets need to ensure that CSR measures taken in other countries of operation are appropriate and really address pot

In 2005, Oji Paper acquired 85% of the shares in BG

such as more frequent and longer-lasting floods, with potential negative consequences for rice crops. Yet, according to activist organizations such as International Rivers, NTPC has not fully defined or adequately funded its programmes to ensure that villagers can face the expected impacts and receive full compensation for their losses (Lawrence, 2008).

Despite the negative aspects of the project, however, it is important to note that by standards commonly applied in Lao PDR, the programs accompanying NT2 have been relatively effective.

7.1.3 Challenges for CSR in Lao PDR

It is important to note that the case studies above are not generally indicative of the CSR climate in Lao PDR. In fact CSR in Lao PDR is a very new concept, and few corporations have embraced it. Aside from the lessons set out in these cases, there are a number of other gaps or challenges for the promotion and implementation of CSR in Lao PDR.

First, a lack of stakeholder involvement and low capacity amongst CSR actors and regulators are issues that have been mentioned in both the cases of Thailand and Vietnam, and are common barriers towards CSR implementation in Asia. These issues are even more acute in Lao PDR, where a long history of corporate citizenship is non-existent and a lack of understanding of CSR and its benefits is prevalent not just among companies but also among actors who facilitate CSR activities, such as trade and industry associations and government.

An additional challenge is Lao PDR's significantly uneven playing field among companies, where only a small proportion practice CSR and act responsibly, and creating disincentives to improve performance. For example, many of the companies active in Lao PDR are based in countries such as China, Vietnam,