

# **Laos - Planting for the Future**

## **Environmental and Social Codes of Practice for Industrial Tree Plantations – An Overview Volume I - Main Report**



**A report commissioned by  
the INGO Land Issues Working Group**

**with support from the  
Swiss Agency for Cooperation and Development**

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## Summary

This report was commissioned by the Lao Land Issues Working Group and supported by funding from the Swiss Agency for Development and Cooperation. It was prepared during May-June 2009.

Mapping the principles and process for preparing an environmental and social Code of Practice (CoP) for the industrial tree plantation sector in Laos has proved to be larger and more complex than originally envisaged. This report, in two volumes, is the first part of a larger report, the second part to be prepared on the basis of a workshop to be conducted later in 2009.

For plantations, most CoP are based on an extension of CoP developed for forestry, with additional environmental and social elements. Implementing a CoP should, logically, be a first step in moving towards formal certification using one of the internationally accepted systems available, as the environmental, social and economic benefits for all parties can be substantial.

CoP have their roots in legal systems and the commitment of individuals and organisations to conducting their business, and that of their sector of the economy, on ethical, equitable, publicly transparent and accountable basis. Development and application of CoP in many sectors of the global economy has gathered pace over the last two decades. The learning during the last decade or so from application and monitoring of CoP is that all parties can benefit, while simultaneously destructive environmental and social impacts are minimised or avoided. Most importantly, when implemented following the both letter and the spirit of the CoP, the sustained economic benefits can be greater for all parties involved, and more resilient to the vagaries of markets.

The research revealed that a three-layered hierarchy of assessment and certification systems has evolved during the last two decades. The 'top' layer assesses national and international certification systems, the 'middle' layer, which is used to assess industry association, private and government certification systems, the 'lowest' layer. All of the systems are periodically revised to take account of improved standards or emerging issues, e.g. climate change.

The range of environmental and social issues included in CoP (or certification) systems are broadly similar across all the different systems, but there are important differences in the emphasis placed on groups of issues and means of verification, reporting and transparency. Guidelines developed by forestry organisations, e.g. FAO, CIFOR, ITTO – clearly reflect their professional orientation and priorities, with significantly more emphasis on technical and financial issues and less on environmental and social standards and processes. These guidelines are similar with regard to issues and content to CoP for forestry and plantation associations, but are voluntary guidelines and lack formal monitoring requirements.

Those developed by forestry and plantation business associations, e.g. national and commercial systems under PEFC - have a similar orientation, but provide a defined process and standards for certification; requirements for reporting and public transparency, e.g. full disclosure of monitoring reports - are limited. The exceptions are the 4C and UTZ systems (for coffee, tea and cacao) where public disclosure of monitoring reports is required.

The three major multi-stakeholder certification systems – FSC, RSBO and RSB – all ‘middle layer’ systems – developed through long consultations between large plantation companies, smallholder associations, environmental and social NGOs, processing and marketing companies, academics and others accord much more importance to environmental and social standards, and require public disclosure of virtually all documentation. These systems provide for a well-defined path towards certification supervised by accredited third-party companies, and certified plantation companies can use the certifier’s official logo (e.g. FSC, PEFC, 4C, UTZ) on their products.

It is noteworthy that more recently developed systems, RSBO and RBS, explicitly include requirements to inform, fully consult with and respect the cultural, social and economic rights of ethnic minorities, including fair compensation for land acquisition, labour rights and fair working conditions; the FSC system is sometimes criticised for lack of explicit attention to these issues. These same issues are dealt with in vague language or are absent from the FAO, CIFOR and ITTO guidelines and the industry association CoP, again with the exception of 4C and UTZ. Each of these systems – but not FAO, CIFOR or ITTO systems - requires certification of each element in the whole production and processing supply system – i.e. the ‘Chain of Custody’ from plantation to consumer must be unbroken.

In Laos the essential legal framework for plantation CoP is in theory in place. There is a quite full suite of forestry, environmental and social laws, regulations and technical guidelines, many of them developed according to internationally accepted standards. The critical exception being an effective land tenure and land titling system for rural areas, especially for communal land and ethnic groups. Major donors have also drawn attention to major problems in governance, such as application of laws and lack of administrative transparency and accountability.

It is widely recognised there is a serious lack of capacity to effectively and fairly implement existing environmental and social (e.g. resettlement) laws and regulations. This makes the implementation of plantation (and forestry) CoP difficult, and likely undermines potential economic and other advantages companies may seek to gain.

The next steps proposed for developing a plantation CoP, assuming it is agreed this is a feasible approach and prior to initiating formal multi-stakeholder roundtable discussions, would be to determine which government agency would be the sponsor and supporter the adaptation or development process. This would be followed by several preliminary, fairly informal, workshops including a broad range of participants, so as to discuss and agree on a strategy and timetable. A more formal, multi-stakeholder roundtable process would be used to undertake adaptation or development of the industrial plantation CoP for Laos.

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## Abbreviations and Acronyms

ADB	Asian Development Bank
ASEAN	Association of South East Asian Nations
CEPI	CEPI-matrix - Confederation of European Paper Industries
CIFOR	Centre for International Forestry Research
CoP	Code of Practice
4C	Common Code for the Coffee Community
CSR	Corporate Social Responsibility
DoF	Department of Forestry
FERN	Forests and the European Union Resource Network
EIA/SIA	Environmental Impact Assessment / Social Impact Assessment
EU	European Union
FAO	Food and Agriculture Organisation (of the UN)
FSC	Forest Stewardship Council
FDI	Foreign Direct Investment
GTZ	German Technical Cooperation
ITP	Industrial Tree Plantation
IFC	International Finance Corporation
ILO	International Labour Organisation
ITTO	International Tropical Timber Organisation
IUCN	International Union for the Conservation of Nature
LIWG	Land Issues Working Group
MAF	Ministry of Agriculture and Forestry
MPI	Ministry of Planning and Investment
NGO	Non Government Organisation
NLMA	National Land Management Authority
OHS	Occupational Health and Safety
PEFC	Programme for the Endorsement of Forest Certification schemes
RSB	Roundtable on Sustainable Biofuels
RSPO	Roundtable on Sustainable Palm Oil
STEA	Science, Technology and Environment Agency
TFD	The Forest Dialogue
TFT	Tropical Forest Trust
UTZ	UTZ CERTIFIED Code of Conduct
WWF	World Wide Fund for nature

## Preface

The Land Issues Working Group (LIWG) is a working group of the International Non-government Organisations Forum in Lao PDR. In addition to the LIWG the Forum is represented by working groups on Health, Education, Water and Sanitation, Governance and Civil Society. The mission of the LIWG is to promote awareness and understanding of land issues in Laos by conducting research, sharing information and facilitating dialogue. The LIWG works in partnership with donors, bilateral projects and the government. In 2008 a national level conference was held in cooperation with the National Land Management Authority. The conference began to address the many impacts occurring from the expansion of land concessions. The LIWG has also created a report titled “Turning Land in Capital” which has documented the process of land changing from an abundant natural resource in Laos to a commodity in high demand. In 2009 we have been involved in the government’s new Participatory Land Use Planning and Land Allocation Policy and in advocating for the titling of communal land ownership.

The current initiative “Environmental and Social Codes of Practice for Industrial Tree Plantations – An Overview” was started in response in an effort to minimize the environmental and social impacts that industrial tree companies are having. If established, a Code of Practices (CoP) would give investors and the government the guidelines needed to ensure they were having a minimal impact on the environment and respecting the rights of those involved or effected by tree plantations. It could also allow for some of the products from the plantations to be certified by the CoP to reach markets where certification demands premium prices. For the government of Lao PDR it would assist them to ensure that the assets of the nation, the environment and people, are being properly considered in plantation implementation.

The approach to establishing a CoP is being done in two phase. The first phase is this report which is an assessment and review of existing CoP and which also provides recommendation for next steps towards a CoP for Laos. The second phase, to be done later in the year, is an “Assessment in the Feasibility of Establishing a CoP for Lao PDR”. Based on the findings of these reports, informed decisions can be made on such things as: the government agency best able to oversee a CoP and at what level, the role of industry, the possibilities regarding voluntary and enforced adherence and time frame needed to begin.

The LIWG fully appreciates the complexity in establishing a CoP or adopting an existing one and then implementing it. It will need multiple stakeholders from various levels to agree a CoP is something that will benefit all those involved. For a CoP to be functional, commitment to environmental protection and to peoples’ rights needs to be a priority. It is hoped that by commissioning this work the process of moving towards a decision whether to pursue a CoP in Laos can be made.

# **Environmental and Social Codes of Practice for Industrial Tree Plantations – An Overview**

## **1 Introduction**

This report on Codes of Practice for industrial tree plantations was commissioned by the Land Issues Working Group (LIWG), and supported by funding from the Swiss Agency for Development and Cooperation.

Codes of Practice (CoP) have their roots in both legal systems and the commitment of individuals and organisations to conducting their business, and the business of their sector of the economy on ethical and equitable, and publicly transparent and accountable basis. In part they have grown from recognition that neglect of good environmental stewardship and caring for the welfare of all the people connected with production is increasingly and cumulatively destructive and short-sighted. In popular parlance, it is not sustainable, environmentally, socially or economically.

Development and application of CoP in many sectors of the global economy has gathered pace over the last two decades. Now there are non-government CoP initiatives covering a wide range of products, especially those from the tropics and those dependant on forests and oceans, and whose production affects the lives and welfare of rural communities in the Global South.

The learning during the last decade or so from application and monitoring of CoP is that all parties can benefit, while simultaneously destructive environmental impacts are minimised or avoided. Most importantly, when implemented following both the letter and the spirit of the CoP, the sustained economic benefits can be greater for all parties, and more resilient to the vagaries of markets and society, environment and climate.

During the preparation of the original version of the report it was mutually agreed that it would be better to divide the report into two parts. This is the first part – an overview of Codes of Practice and Guidelines for forestry and plantations. The orientation is towards identifying standards that are potentially relevant for Laos. This overview will be followed at a later date by another report and, possibly, a workshop, orientated to addressing issues surrounding establishing and implementing a plantation Code of Practice in Lao PDR.

In essence this report documents a scoping exercise to: collect relevant documents, consult with members of the LIWG, consult with potential government and industry partners and develop a draft report that outlines possible principles to guide preparation of a Code of Practice (CoP) for industrial tree plantations in Lao PDR and a preliminary strategy for developing a plantation CoP for Laos. The work was undertaken over a period of about three weeks.

The industrial plantation species of particular interest for this report are: rubber, eucalyptus, teak, agarwood, jatropha and oil palm. However, a well developed CoP should be relevant for a range of other plantation crops, as the differences with respect



to environmental and social issues are minor compared to the similarities.

Codes of Practice (CoP) are *not* intended to nor cannot be a substitute for properly conducted Environmental and Social Impact Assessments (EIA/SIA). A CoP is one of a range of management tools that may be specified in the granting of a plantation concession or in an EIA as part of an environmental and social management and monitoring plan, or it can be a management tool implemented as part of a suite of corporate management policies and strategies (e.g. as part of CSR). In theory, an adequate legislative and regulatory framework for EIA/SIA already exists in Laos (Voladet 2009).

## 1.1 Scope of the Study

In summary, the objective of the first part of this study – the Main Text - is to provide an overview of Codes of Practice and Guidelines for industrial tree plantations, so as to provide a background information on the principles and practices potentially suitable for establishing an environmental and social CoP for Laos. The main text is supported by extensive annexes, soon to be available on the LIWG website (<http://laolandissues.org/>), and in the near future a CD-ROM with the full text of many of the sources used. The initial Terms of Reference for this study can be found in Annex 1, and a list of the people and organisations consulted in Annex 2.

The principles and standards explored here are also valid, in general terms, for smallholder tree plantations, but the CoP is *not* explicitly directed at their establishment or operations. In general, the scale and severity potential negative environmental and social effects of smallholder plantations are considered to be minor (World Bank 1994). In contrast, large industrial-scale plantations have potential for causing significant negative environmental and social impacts. These can be difficult and expensive to monitor, mitigate and manage and may well be irreversible, e.g. clear-cutting primary forest, disruption or destruction of traditional communities – and plantation establishment can easily lead to large-scale CO<sub>2</sub> emissions from land clearing, soil degradation and burning vegetation. These emissions have potential implications for obligations under the Kyoto Treaty.

For a variety of sound practical reasons there are clear limits placed on the extent of this report on principles for a preparing an environmental and social CoP for plantations. The limits are as follows:

**Scale.** The report is directed to clarifying principals underlying preparation of an environmental and social Code of Practice for *large* industrial tree plantations. In this context ‘large’ is defined to mean any ITP company which has control over or manages a total plantation area of greater than 100 ha, whether contiguous or in separate parcels. Hence, an ITP company with 5-10 parcels of 10-20 ha each, for example, would be included.

**Species.** The report is concerned only with perennial tree species, not with plantations of perennial shrubs (coffee, tea) or with arable field crops (sugar, cassava, maize). The report covers large plantations of the following six tree species in Laos:

- Rubber (Ton Yang Para - *Hevea brasiliensis*)
- Eucalyptus (Ton Viek - *Eucalyptus spp.*)
- Teak (Ton Sak - *Tectona grandis*)
- Jatropha (Ton Mark Yout - *Jatropha curcas*)
- Agarwood/eaglewood (Mai Ketsana - *Aquilaria spp.*) and

- Oil Palm (Nam Man Palm - *Elaeis guineensis*)

None of these six crops are directly consumed by humans, unlike coffee, tea or sugar, they are intermediate goods used to manufacture a range of final goods (tyres, paper, furniture, bio-diesel, scents, oil). Products such as coffee and tea not only have to meet certain health standards (e.g. low pesticide residues) but can also ‘branded’, clearly distinguishing those produced organically and/or observing higher environment and social standards from other brands. This allows them to, potentially, command premium prices and/or appeal to consumers concerned about these issues. This is a key difference when considering potential incentives and sanctions (see below).

**Boundaries.** The report and the CoP take the physical boundary of the plantation to be the limit of interest. The report does not cover transporting and processing of plantation products. On the other hand, the report and CoP covers the living conditions of local communities and plantation workers, whether within or outside the boundaries of the plantation.

The rapid expansion of plantation areas in Laos, largely being developed by foreign companies through direct investment (FDI) is seen by the government as one of the major elements of its strategy for poverty alleviation and economic development; government officials have been regionally active in promoting foreign investment (e.g. [Soilivong](#) 2006). However, because of lack of control, there are three collateral negative results of plantation development that need serious attention. Although space does not permit a full discussion of these issues – loss of biodiversity, displacement and impoverishment of affected communities, poor governance – based on field and news reports, these are becoming critical meta-issues in all the provinces with large and growing areas of plantations.

By early 2007, these negative effects had become serious enough for the Prime Minister to attempt to impose a ban on granting concessions of larger than 100 ha (Vientiane Times, 9<sup>th</sup> May, 2007). He commented that "We don't yet know when we will resume approval of these projects, as this will depend on whether we can improve our strategy." He cited examples from Bolikhamxay province, and Lao-ngam district in Saravan and Bachieng district in Champassak – the governor of Bolikhamxay demurred, expressing concern about investors being discouraged. Despite this, there are still reliable new reports that large concessions are still be granted (e.g. in December 2008 the Vietnamese Hoang Anh-Gia Lai Group (HAGL) to plant rubber trees on 10,000 ha in Attapeu province (Vietnam Bridge, 12 December 2008).

The rapid loss of biodiversity in the forests and regenerating swidden fallows (where total clearing for plantations can leave areas of 5-10,000 ha barren are common), which appear to often be the main areas cleared for plantations, is a matter for serious concern, given the government's oft stated policy and the global importance of Laos' genetic resources, endemic wildlife and unique habitats.<sup>1</sup> This is reportedly accompanied, in many if not all, locations by disruption or destruction of local

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<sup>1</sup> The term ‘appear’ is used here because there is so little reliable information on the types of land cover cleared for plantations. Despite this, there is widespread and growing anecdotal information, plus a growing number of systematic studies, that many large plantations are being established on lands claimed by local communities and forming critical components of their swidden-fallow cycle. There is also research literature clearly demonstrating that swidden-fallow lands are major repositories for biodiversity and, moreover, that most of the accessible forests in SE Asia are or were parts of such cycles (e.g. Fox 2000, Dove et al 2005, Barney 2009, Ziegler et al 2009).

traditional communities, or communities that have been previously forced out of upland areas, and their consequent impoverishment and immiseration (commonly 5-10,000 or more people). Again, this is contrary to the government's stated policy. This is a process that has been described as "... a crucial method of externalising the true costs of resource development ... shifting the damages and responsibility onto local populations." (Baird 2009).<sup>2</sup> Another recent report on rubber plantation development in Champassak province notes "...loss of land and access to land (83% of the agricultural lands have been lost)", 8,900 ha (of 10,000 ha) of land had been cleared affecting 33 villages and 12,644 people. (Obein 2007).<sup>3</sup> If even half the reports of the destructiveness of ITP establishment are true – rubber and pulpwood allegedly being the greatest offenders - they are also undermining belief and confidence in the government at many levels, i.e. they are examples 'bad' governance, and are generating deep social discontent.<sup>4</sup>

Such impacts are normally classified as serious, negative and irreversible, and are the very kinds of environmental and social impacts that a properly functioning EIA/SIA system should prevent (Voladet 2009). Even a fully implemented CoP cannot begin to address these kinds of impacts.

## 1.2 The Limits of a Code of Practice

Detailed discussion of the legal framework for plantations is beyond the scope of this report, but the importance of the legal framework for developing a CoP needs to be fully appreciated. There is already a large body of law and regulations that affects plantation establishment and operations. In fact, buried in the Forestry Law are requirements for operators that on State lands to "... prepare a *management plan and impact assessment* prior to issuance of harvest and transport permits (MAF Reg. 196, Articles. 11, 15) Sigaty (2003)) hence, some of the basic elements needed for a CoP already exist, albeit the implementing regulations have never been prepared. Expert commentators have identified aspects of this law that are in need of detailed review and revision. There are a wide range of binding and non-binding international agreements that are relevant to establishment, management and operations of plantations, a summary can be found in Annex 3. A summary of Lao legal provisions, prepared (ibid) for an ADB project on the forestry and plantation sector, can be found in Annex 4.

CoP for plantations and other sectors are market-based means for ensuring observation of minimum environmental and social standards. They operate, where they are not legislated or backed by state authority, by indirectly exerting consumer pressure on owners and operators via influencing demand for their products (i.e. they are *demand side* instruments). In parallel, important markets, e.g. US, EU - increasingly require formal certification – a logical extension of CoP - or deny or limit access for products that do not meet acceptable environmental and social standards, including human and labour rights.

Where plantation products are not sold in markets like the EU or US, or when

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<sup>2</sup> See also Lang 2002 and 2008, Lang and Shoemaker 2006, and numerous newspaper and project reports.

<sup>3</sup> There are credible reports from southern Laos of villagers repeatedly physically attacking teams of Vietnamese who claiming village land and attempting to clear the land. The resistance continued until the Vietnamese left the area.

<sup>4</sup> See, for example "The resentment rises as villagers are stripped of holdings and livelihood.." (The Guardian, 22 November 2008) reporting on the situation in Bolikhamxay.

products cannot be branded as ‘environmentally and socially friendly’ such as coffee and tea, the opportunities for using *market forces* to encourage compliance is considerably lessened. For the six tree crops covered by this report, and especially those grown on plantations owned and/or operated by companies from neighbouring countries and with products sold to these same countries, depending on market forces is likely to be unsuccessful.

In essence, and under adverse conditions, CoP cannot offer a substitute for an effective and enforced legal and regulatory framework covering the acquisition of land for plantations, and environmental and social standards for plantation establishment and operations. CoP work best to encourage owners and operators to move from minimum standards towards long-term plantation and environmental stewardship and social development for workers and local communities.

### 1.3 Approach and Methodology

The approach taken in this report is to clarify the principles and some major technical issues that would need to be considered in later preparation of an environmental and social Code of Practice. Preparing or adapting a CoP will require substantial time and resources for determining appropriate technical standards, defining protocols and procedures, clarifying organisational roles and responsibilities and, not least, providing ample time for consultation and discussion between all concerned parties, i.e. a multi-stakeholder process.

In the limited time available a mixture of literature research and consultations with a selected range of people from the forest and plantation sector, recognised national and international environmental and social experts was used to identify and clarify key issues. Annex 2 lists those consulted. A broad range of specialist literature has been drawn upon, and care has been taken to ensure the citations are as complete as possible. The materials used have been archived for later use in preparing a detailed environmental and social CoP.

Experts from the following areas were consulted: Government of Lao PDR officials in technical and sectoral agencies and academies, staff from relevant donor agencies, senior officials from plantation companies operating in Laos, experts from international environmental and social NGOs, and national and international environmental and social experts knowledgeable about rural, forestry and plantation issues in Laos.

It is not clear at this time what stances on each of the many issues the concerned parties (e.g. GoL, plantation operators) will take. Hence, this report is designed to provide a basis for initiating roundtable discussions, through identifying and clarifying a range of issues and principles, and offering a schematic outline of processes needed to define and adopt an environmental and social Code of Practice for Industrial Tree Plantations in Laos.

It should be noted that as part of a regional initiative FAO started a round of discussions on guidelines for ‘planted forests’ (plantations) in about 2005, these discussions included representatives from Laos. The process remains incomplete and no details on possible plans to complete the process are available.

This overview is intended to provide a basis for and stimulate discussion about all the relevant issues – it is not intended to be prescriptive and is offered as a point of departure for discussions.

## 1.4 Structure of the Report

Following this introduction legal and historical basis for CoP is briefly discussed, including increasing environmental and social responsibility requirement by major importing companies and countries. After discussing the differences between forests and plantations, the basic operational principles for CoP and certification systems are presented, leading to a discussion of the development of CoP and the hierarchy of assessment systems that have evolved. This is followed by brief descriptions and reviews of the major assessment and certification systems.

The third section of the report outlines the potential approaches and methods available to Laos for improving plantation environmental management and social responsibility. It identifies the relevant laws and regulations in place, notes Laos' international obligations and explores potential incentives, sanction and financial conditions available for supporting or as supplements to a CoP. It notes that most of the necessary legal instruments are already in place, and that combined application environmental and investment standards provides, at least in theory, a fairly direct means for improving the environmental and social aspects of plantation management for industrial tree crops.

The final section of the report draws conclusions about developing environmental and social CoP (or guidelines) for the plantation sector in Laos. It proposes that Laos would be well advised to adopt and adapt an existing system, rather than develop a Lao-specific system. Suggesting, on the basis of the earlier reviews, the FSC standards and certification system may provide the most appropriate model; while the multi-stakeholder roundtable discussion process used for the establishing the RSPO and RSB systems offers a well proven means of gaining broad agreement of the standards and processes to be formally adopted.

The main text of the report is supported by comprehensive annexes, in a separate volume. These annexes, in addition to the ToR and background information, provide summaries of the main principles of the major CoP that have been reviewed. It is intended that in the near future a CD-ROM containing a broad range of plantation and forestry CoP-related material will be prepared for distribution.

## 2 Assessment of Codes of Practice for Plantations

### 2.1 Introduction

The point of departure for the assessment of plantation CoP and guidelines is a review of forest certification systems. In general, these are more fully developed than plantation CoP and the principles and criteria used for forestry commonly serve as a basis for plantation CoP, with the addition of elements to address environmental and social issues specific to plantations, e.g. FSC Principle 10 for plantations, requires prior fulfillment of Principles 1-9 for forestry. This first part of this section describes the operational principles and other elements that go to make up a Code of Practice (CoP), and the definitions and differences between forest and plantations.

The legal hierarchy in which Codes of Practice are embedded begins with legislation (laws), followed by decrees and government regulations, in descending order of authority. In general, CoP issued by the state are equivalent to implementing guidelines for regulations. Hence, the state may issue a CoP for forestry or plantations, or any other sector of the economy, that all organisations, and often professional associations, are expected to abide by. Individuals, business and organisations may be required to register with the responsible government agency, possess specified qualifications and/or pass various examinations or inspection in order to establish and undertake business.

The market-driven approach of ‘self-regulation’ (an oxymoron if there ever was one) has become increasingly popular in the last two decades. This may operate as an alternative to direct government licensing or regulation, with business associations establishing standards or the state granting professional and business associations the power to determine the CoP for their profession or sector. In many countries CoP for forestry and plantations have been established in this way. More recently, international organisations have established CoP for internationally traded goods, and these standards are in some instances being used to control export and import of specified goods (e.g. US Lacey Act). This is increasingly the case for forest and plantation products, with a clear emphasis on adhering to specified environmental and social standards throughout the ‘supply chain’ – from land acquisition, to field operations, to wages and conditions and worker’s safety and health.

### 2.2 Forests and Plantations

There are some definitional issues that require clarification, these are briefly discussed below. Technically, the differences between a natural forest and a plantation are easily established using basic ecological tools (e.g. transect, quadrat). A common understanding of the differences are: a natural forest is composed of many species of mixed-age woody and herbaceous vegetation, it has naturally evolved, and there is usually a wide range of avian and above and below ground wildlife present; a plantation is composed of one or a few species of generally even-aged trees or herbaceous plants, has been planted by humans, and wildlife is largely absent. The definition from the Concise OED is as follows:

**Natural Forest** a large area covered chiefly with trees and undergrowth.  
**Plantation** an area in which trees have been planted, especially for

commercial purposes.<sup>5</sup>

The FSC (2002) has more comprehensive definitions of natural forest and plantation:

**Natural Forest** Forest areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure and diversity are present, as defined by FSC approved national and regional standards of forest management.

**Plantation** Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silvicultural treatments.<sup>6</sup>

The term ‘planted forest’ is now used by some organisations, - ITTO, FAO, CIFOR - as a substitute for the word plantation. In practice, the term ‘planted forest’ is considered to be too broad – it includes: planted semi-natural forest (what in Laos would be called swidden) and productive and protective plantations - this can lead to unnecessary confusion, hence the term (industrial) plantation is used in this report. This terminological confusion is compounded by the definition of ‘forest’ used by these organisations; there is a continuing debate about this definition (see Lang 2008:126). See Annexes 5 and 6 for an illustration of ‘planted forest’ and the FAO definition of ‘forest’.

### 2.3 Basic Principles

The essence of a CoP is that it needs to both scientifically and technically well-founded and robust, be designed and orientated for application by plantation management and workers, and by those who conduct regular and verification inspections. UTZ (2009) provides a succinct definition of the operational principles upon which an environmental and social CoP needs to be based :

- **Meaningful:** The CoP must have a positive effect on social, environmental as well as economic sustainability of production.
- **Practical and Credible:** The CoP must include realistically achievable control points and measurable and auditable indicators (these indicators may be further elaborated outside the CoP itself).
- **Inclusive:** The program must be accessible and workable for smallholder producers.
- **Efficient:** The CoP must be applicable within the mainstream tea sector and market, creating extra value for all parties against the minimal additional costs.
- **Accepted:** The CoP must be broadly accepted, not only within all parts of the [supply] chain but also in the societal and institutional environment in which the chain is embedded.

A comprehensive CoP covers all aspects of plantation operations, and also has systems for recording what happens to each identifiable batch, log or lot of material that is produced, transported and processed. This is called the “Chain of Custody” and is a key element in all reputable certification systems (see FSC 2007, 2008). This is

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<sup>5</sup> (Concise OED 11<sup>th</sup> ed)

<sup>6</sup> FAO (2006) seems to be the source of a new term ‘planted forest’ – one that blurs the distinction between a natural forest and a plantation. Ecologically the distinction is clear, especially concerning industrial tree plantations; the traditional distinction is maintained here.

because only with a competent Chain of Custody in place and operating is it possible to certify the products being checked have been produced according to the CoP criteria. It is notable, and rather surprising, that the CIFOR, ITTO and FAO systems lack provision for a Chain of Custody.

The broad principles defined by UTZ need to be translated into specific items within a CoP that deal with the following complex range of issues. A summary of these issues is listed below, which issues are important will depend on the specific context:

- **Environment:** existing land cover; biodiversity status and wildlife habitats; land use zoning and alternative uses; UXO status; location in relation to watercourses, communities and transport; technologies used for preparation (clearing, roads, drainage); effects on catchment management; species selection (indigenous/exotic); plans for operations and maintenance (including agrochemicals); and harvesting and transport methods.
- **Social:** presence of communities; special issues related to ethnicity; land ownership (traditional or formal titles); current land and resource use (e.g. hunting, gathering, NTFP) by local communities; effects on agriculture, food production and food security; prior informed consultation with local communities; community consent and adequate compensation; improvement of local livelihoods (health, education, infrastructure); use of local and outside labour; local opportunities for employment and training.
- **Economic:** management according to accepted principles and practices; fair wages for all staff, including seasonal workers; regular auditing of accounts;
- **OHS:** exposure to risks from machinery (chainsaws, heavy vehicles); exposure to risks from agrochemicals (fertilizers, pesticides, herbicides); risks from dangerous animals and insects; worker's general health; training in: safe work practices, risk identification and avoidance, first aid and fire fighting.
- **International:** compliance with relevant agreements; allow monitoring by accredited third parties; provide access to important markets with environmental and social standards;
- **Incremental:** well defined steps and managerial and technical support from entry and initial assessment, to identification of issues requiring improvement, to an increasing number of issues fully in compliance; progressive integration in management systems.
- **Flexible:** steady adaptation of existing management policies and practices to CoP requirements; willingness to negotiate areas of difference and/or non-compliance with other stakeholders and accredited monitoring team.
- **Applicability:** suitability for use in remote rural areas; and suitable for use in Laos.

## 2.4 Forestry Certification Systems

Certification was originally developed as a voluntary market mechanism to:

- Promote sustainable forest management through the implementation of forest management standards; and
- Promote sustainable consumption patterns by shifting the use of forest products towards those coming from certified sources.

Certification systems for forestry have proliferated in the last decade or so. The most widely known is probably that of the Forest Stewardship Council (FSC), but it is not



the only major system. These certification systems have been developed by governments, private sector forestry associations and international organisations and national and international NGOs. What they all have in common is a more or less comprehensive system for assessing the environmental and social effects of forestry practices, generally with the aim of assuring buyers, exporters, importing countries and/or consumers that timber products have been produced by means and using methods that conform to a set of broadly accepted environmental and social standards.

In parallel, a number of organisations have set to work to assess these certification systems, to see to what degree they actually do what they say they are doing. Below two related aspects of forest certification are examined: first, which systems provide the most reliable indication that key management principles underlying environmental and social norms are respected; second, interwoven with the first, what is the range of topics taken into account by certification systems. Both aspects are equally important, as they provide guidance to the 'minimum' set of principles and technical standards necessary for developing CoP for plantations.

## 2.5 Developing Codes of Practice

The range of principles and variables to be taken into account when developing a Code of Practice (CoP) for plantations is formidable. Further, having compiled a long list of these remains the challenge of deciding which ones are most important and which it is practical to include in an operational CoP. There then remains the problem of discovering how well a CoP works in practice.

It needs to be recognised that the requirements of a fully developed and applied CoP are highly complex, affecting all aspects of plantation operations and the communities within and adjacent to a plantation. A CoP's complexity and the breadth of its effects - including most aspects of a company's management and operations, and the need for substantial financial resources and time to design and implement - go a long way to explaining why even 'ethical companies' are cautious about agreeing to adopt and implement a CoP.

CoP need to be designed to be incrementally and flexibly implemented, allowing adequate time for management and staff training; local communities also require time and extended support to ensure they are able to fully participate and benefit. Moreover, companies need to be assured that qualified and experienced, long-term support will be available to assist the company and local communities with the process of designing and implementing a CoP. Fortunately, many industry associations and specialist companies are now operating and have accumulated sufficient experience to provide effective, long-term support for all aspects of implementing a CoP.

Rather than start from scratch it was decided to build on the work that has already been done for certification of forestry and forest products – as forest certification is the functional equivalent of a CoP for plantations. The assumption is that certification systems assessed as working well for forestry will, with appropriate modifications and additions for plantations, provide a well-tested basis for developing a CoP for plantations. In general, CoP for plantations require more attention be directed to local social and economic issues and OHS, and additional requirements for monitoring and managing changing environmental impacts from plantation operations.

## 2.6 The Certification and Guidance Hierarchy

The research has identified three levels of certification systems for forestry and plantations. The ‘top’ level is referred to as ‘meta-meta certification’ systems, which assess ‘meta-certification’ systems which, in turn, assess the certification systems that are actually used to assess planning, management and operational practices in the field. The diagram below illustrates the certification and guidance ‘hierarchy’.<sup>7</sup>

Following a description and discussion of the three ‘highest’ level systems, the *meta-certification* systems – FSC, PEFC, RSPO and RSB - are briefly discussed. There is continuing competition between the FSC and PEFC meta-certification systems. This is followed by brief review of the following forestry and plantations certification and guidance systems:

<i>meta-meta certification systems</i> (FERN, CEPI, TFD)						
<i>meta-certification systems</i> (e.g. FSC, PEFC, RSPO, RSB <sup>8</sup> )						
<i>certification and guidance systems</i>						
CIFOR	FAO	IFC	ITTO	TFD	4C	UTZ

### Meta-meta-Certification Systems

Three main *meta-meta-certification* systems were identified – these systems evaluate and compare certification systems such as FSC and PEFC:

- FERN - Forests and the European Union Resource Network;
- CEPI-matrix - Confederation of European Paper Industries; and
- TFD Assessment - The Forest Dialogue.

### Meta-Certification Systems

- FSC – Forest Stewardship Council
- PEFC - Council Technical Document
- RSPO - Roundtable on Sustainable Palm Oil
- RSB - Roundtable on Sustainable Biofuels

### Certification and Guidance Systems

- CIFOR - Code of Practice for Industrial Tree Plantation Development in the Tropics
- FAO - Responsible Management of Planted Forests: Voluntary Guidelines
- IFC - International Finance Corporation (and World Bank)
- ILO - International Labour Organisation
- ITTO - Guidelines for the Establishment and Sustainable Management of Planted Tropical Forests

<sup>7</sup> It should be noted that voluntary guidance systems – such as those of CIFOR, FAO, ITTO – do not have organisations authorised to undertake or offer ‘certification’, in the same way those of

<sup>8</sup> RSB is not yet in operation, so its criteria and procedures for assessing other certification systems are not yet defined and agreed.

- TFD - The Forest Dialogue
- Chinese Guidelines for Overseas Silviculture
- 4C - Common Code for the Coffee Community
- UTZ CERTIFIED Code of Conduct.

For these systems separate Annexes provide additional details.

## 2.7 Assessing Meta-Certification Systems

Three *meta-meta-certifiers* have been identified – these compare the various meta-certification schemes, the first two focusing on the two major systems FSC and PEFC, the third on four systems. Their respective findings are discussed below.

[FERN](#) is an independent NGO, which receives funding from some 14 organisations, some government agencies. The second, the [CEPI](#)-matrix receives funding from many members of the international industry association [ICFPA](#) (International Council of Forest and Paper Associations). The CEPI [website](#) claims that in 2006 FSC (84.2 million ha) and PEFC (193.7 million ha) between them accounted for some 91% of the world's certified forests (294.9 million ha) – the majority of these (166.6 million ha) in North America. The third is the [TFD](#) Assessment, now based at Yale University, assessed four systems including FERN and the CEPI-matrix.

### 2.7.1 FERN - Forests and the European Union Resource Network

This is a broad and systematic comparison available for forest certification schemes.<sup>9</sup> In 2001 they compared eight systems, five of these are national (Brazil, Malaysia, Chile, Canada, Australia), a sixth is the US-based SFI scheme (US and Canada), two others, PEFC and FSC are different, as these certify and endorse national-level certification schemes. FSC and PEFC act as *meta-certifiers* - they do not undertake certification themselves but certify the capacity and probity of other certifying organisation, such as SmartWood and the Tropical Forest Trust (TFT) (both already operate in Laos). In 2004 they re-compared four systems “FSC, PEFC, SFI and CSA ... [previously] considered sufficiently well developed to warrant detailed investigation” (FERN 2004), plus four other (‘new’) schemes (CERFLOR, Certfor, AFS, MTCC).<sup>10</sup> It should be noted these systems are continually evolving and being upgraded, partly in response to internal and external critics and partly to maintain their popularity.

The FERN assessment centered on answering five questions (below) – questions that reflect key principles underlying the quality of forest management; answering these questions fully requires exploring a wide range of issues. The questions were:

- Does the standard define the level of forest management that needs to be achieved?
- Who is involved in the standard-setting process?
- What does the certification process entail: field visits, or just checking documents and plans?

<sup>9</sup> The NGO Alliance for Credible Forest Certification (ACFC - <http://credibleforestcertification.org/>) brings together assessments of a number of certification systems, including FSC and PEFC.

<sup>10</sup> Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), Programme for the Endorsement of Forest Certification schemes (PEFC), Canadian Standard's Association (CSA); Sistema Brasileiro de Certificação Florestal (CERFLOR), Certificación Forestal (Certfor), Australian Forestry Standard (AFS), Malaysian Timber Certification Council (MTCC).

- Is the scheme sufficiently transparent?
- Does the scheme provide a consumer label that is honest and trustworthy?

Their conclusion was that only for two of the systems – FSC and CSA – was standard setting inclusive and not dominated by the forestry sector, that is the other six system were not fully participatory, reflecting broader environmental, political, social and economic concerns. All systems, with the sole exception of FSC, allowed for the conversion of (old growth) forests into plantations and for plantations to be defined as ‘forests’. Only CSA, FSC, Certfor and MTCC were considered ‘transparent’ with certification standards and summaries of all certification reports readily and routinely available. Field visits, to ensure forests are well managed in practice, are required by most (except some PEFC systems; SFI is unclear), annual monitoring visits were required by all (except SFI) as well as a well-defined chain of custody (all except SFI). FSC, MTCC, Certfor and CSA systems all require stakeholder consultation as part of the certification process (the report noted quality differs considerably) but SFI, PEFC and CERFLOR do not have any consultation requirements (FERN 2004:28-30).

In summary, while the report raised concerns with all the systems, FERN found that FSC “remains by far the most independent, rigorous and, therefore, credible certification system” (ibid:21). From both environmental and social perspectives, FSC’s baseline for certification prohibits conversion of forests to plantations and is regarded as the most advanced with respect to recognition of forest peoples’ rights (ibid).<sup>11</sup>

### 2.7.2 CEPI-matrix - Confederation of European Paper Industries

This is a sophisticated web-based series of matrices for comparing different certification systems. Sixty four systems (mostly national) are listed, and comparisons can be made for major components, e.g. standards/principles - for 1-3 systems simultaneously. Limiting the discussion here to a comparison of FSC and PEFC – as the majority of the other systems are national PEFC-certified systems – it is apparent the narratives in the matrix attempts to minimise the differences between these two systems. It requires close and careful reading to discern that what is purported to be a close similarity on a given issue often cloaks subtle but important differences.

To give one example, on Land Tenure, the FSC “require that the legal and customary rights of indigenous peoples ... are recognized and respected” while the PEFC uses the weaker terminology “... should be clearly defined ...” with regard to indigenous rights. These are important differences when it comes to actual land acquisition, plantation establishment management practices. An overriding difference is that the FSC requires all documentation and monitoring reports be made public, whereas the PEFC systems makes public disclosure optional, thus limiting transparency and severely weakening a key means for public scrutiny.

Principles/standards established for recognition and respect for the customary and traditional rights of indigenous/local people	
Forest Stewardship Council: The FSC P&C require that the legal and	PEFC Council: Property rights and land tenure arrangements

<sup>11</sup> FSC permits certification of forests cleared prior to 1994 (FSC was established in 1993), and only for forests cleared after 1994 if the operator can demonstrate they had no involvement in forest clearance. This issue, the last point in Principle 10 for plantations, remains contentious and, it is reasonable to suspect, liable to abuse.

<p>customary rights of indigenous peoples to own, use and manage their lands, territories, and resources are recognized and respected. Indigenous people must control forest management on their lands unless this control is delegated with free and informed consent to other agencies. Sites of special significance to indigenous peoples will be clearly identified in cooperation with such peoples, and recognized and protected. Indigenous peoples will be compensated for application of their traditional knowledge.</p>	<p>should be clearly defined, documented and established for the relevant forest area. Likewise, legal, customary and traditional rights related to the forest land should be clarified, recognised and respected. Forest management practices should make the best use of local forest related experience and knowledge, such as of local communities, forest owners, NGOs and local people.</p>
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### 2.7.3 TFD Assessment - The Forest Dialogue

Rather late in the process of preparing this report an assessment of the *impact* of four forest certification systems by TFD (Nussbaum, R. and Simula, M. (2004)) was discovered. The nine kinds of impacts studied were grouped as follows:

1. forests, biodiversity and forest management, including impacts on soil and water;
2. social impacts;
3. markets;
4. policies and governance; and
5. values, awareness and stakeholders.

More detail on the indicators used is provided in Annex **???**.

This assessment partly overlaps with the assessments that have already been discussed. The systems were: CEPI-matrix, International Forest Industry Roundtable (IFIR), World Bank - WWF Alliance Questionnaire for Assessing the Comprehensiveness of Certification Schemes (QACC) and FERN. In fact, except for IFIR, these are assessments of meta-certification systems.

The assessment identified 16 commonalities and 14 differences between the four systems, a summary of their assessment can be found in Annex 7. Their general conclusions are as follows:

- Different certification systems seem to address different potential needs of different users.
- Different schemes are almost certainly delivering different impacts, so that any further analysis needs to establish the degree to which any particular impact is generic or scheme specific.
- There remain concerns about the impacts and equity of forest certification on different groups and particularly Non-Industrial private forest owners (NIPFOs) and other small or community enterprises.

*This is an important assessment, as it carefully identifies the commonalities and differences between the systems and systematically presents the results of this analysis.* The summary is possibly the best, albeit brief, overview of the strengths and weaknesses of major forest certification systems available.

It is notable that while there were clearly broad areas of commonality between the meta-certification systems (and the systems they assessed), significant differences that emerged related to a limited number of key factors:

- Strength of requirements for (local) community participation in the certification process to be actively facilitated,
- Adequately address tenure issues, especially the need for free, prior, informed consent (FPIC), and
- the strength of requirements for results of certification (including community consultations) and monitoring reports to be made publicly available.

## 2.8 Assessing Certification Systems

In this section the three meta-certification systems – FSC, PEFC, RSPO and RSB are briefly described and discussed. The principles, criteria and indicators defined by these second level certification systems are used as the basis for certifying individual national and private sector certification systems; they also provide the main fora for discussion and development of CoP.

### 2.8.1 FSC – Forest Stewardship Council

The [FSC](#) was established in 1993. The standards were initially established in 1993 and most recently amended in 2002. The complete “FSC Principles and Criteria for Forest Stewardship” (see Annex 8) and definitions of key terms can be found on the [FSC](#) website . The standards are based on achievement of Principles, the first nine of which apply to forest management and the recently added a tenth principle applies specifically to plantations.

The FSC council, based in Bonn, defines the process and standards for forests and plantation certification, but the actual work of certification and monitoring compliance is undertaken by companies that have been directly assessed by the FSC as competent, For Laos these are [SmartWood](#) (part of the Rainforest Alliance) whose regional office is in Bali, Indonesia, and the Tropical Timber Trust ([TFT](#)) with offices in Geneva.

### 2.8.2 PEFC Council Technical Document

[PEFC](#) (Programme for the Endorsement of Forest Certification schemes), based in Geneva, standards (see Annex 9) were initially established in 1999 and provide guidelines for tropical forests are based on those prepared by the International Tropical Timber Organization during the mid-1990s (ITTO 1992, 1993 a & b) and ISO standards, plus relevant international agreements on forest and biodiversity conservation and a range of core ILO conventions (see PEFC 2007); PEFC criteria for temperate and boreal forests are based on the Pan-European Operational Level Guidelines (PEOLG 1998).<sup>12</sup>

These materials have been used to define the procedures and standards under which PEFC operates for the tropics; these are periodically revised according to revisions in the ITTO, etc. standards, and PEFC periodically revises its own internal procedures. Thus, for Laos the PEFC standards need to be assessed on those set by ITTO (see Annex 11).

The salient points of the ITTO guidelines for plantations (“planted forest”) are discussed below, but it is not possible to discuss those of the ISO – which mainly refer to procedural standards – as these are commercial documents and have to be

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<sup>12</sup> Laos is not a member of the ITTO.

purchased from ISO (CHF 124/standard). In this sense, not all of PEFC's standards are freely available for review.

### 2.8.3 Roundtable on Sustainable Palm Oil

The [RSPO](#) certification system is specific for Oil Palm production and the standards are the result of a long process of consultation between producers, processors, retailers, consumers, banks and investors, environmental and social NGOs, this started in 2001 and was completed in 2005.

The standards are continually being revised to take account of new issues, e.g. the most recent is the effects of land clearing for plantations and climate change. The standards apply to the whole production process, from plantation establishment to oil processing – the so-called 'supply chain'. Third party certification is required before RSPO certification can be claimed. Standards, criteria and guidelines are available for both large producers and small holders, and the system also provides for a national certification process.

The RSPO has eight major principles, as follows:

- Principle 1: Commitment to transparency
- Principle 2: Compliance with applicable laws and regulations
- Principle 3: Commitment to long-term economic and financial viability
- Principle 4: Use of appropriate best practices by growers and millers
- Principle 5: Environmental responsibility and conservation of natural resources and biodiversity
- Principle 6: Responsible consideration of employees and of individuals and communities affected by growers and mills
- Principle 7: Responsible development of new plantings
- Principle 8: Commitment to continuous improvement in key areas of activity

While the RSPO system is specific for oil palm, currently a relatively minor ITP in Laos, the standards may well be appropriate for Laos, especially for potential exports to the EU and US. Of more immediate interest, the multi-stakeholder process by which RSPO standards were developed might serve as a model for developing environmental and social CoP for plantations in Laos.

“The larger the IMPF [plantation] project and the less functional the national governance capacity, the greater the likelihood that social costs will be required to be borne by the IMPF project owner to create even minimal social benefits. There appears to be an IMPF project size above which social benefits are outweighed by social costs. When governance structures are ineffective and projects are put in place in a timeframe faster than the capacity of local institutions, cultures, and communities to adapt, the costs tend to outweigh the benefits for all parties except the project owners.” (TFP Review 2008:34)

### 2.8.4 Roundtable on Sustainable Biofuels

The upsurge of commercial interest in biofuels as a substitute for fossil fuels, and resulting concerns about negative environmental and social impacts, led to initiation of a process similar to that used for the RSPO.<sup>13</sup> This led to publishing draft principles in mid 2007, followed by a round of consultations involving some 200 experts and a web-based consultation forum ([www.bioenergywiki.net](http://www.bioenergywiki.net)).

<sup>13</sup> Liquid biofuels (bioethanol, biodiesel) include fuels made from maize, sugar cane, cassava, palm oil, jatropha, rape seed, soybeans.

The [RSB](#) notes they are “committed to an equitable, open and transparent standards-setting process” and have drawn upon the processes used by FSC, RSOP and others in preparing their draft principles. They have not yet developed indicators, although the draft principles provide substantial amounts of ‘key guidance’ on each principle, nor have the processes for certification yet been defined.

There are twelve draft principles (full text can be found in Annex 10) , in which the language is mandatory, i.e. the word ‘shall’ is used for each principle, as follows:

**Biofuel production shall:**

1. Follow all applicable laws of the country in which they occur, and shall endeavour to follow all international treaties relevant to biofuels’ production to which the relevant country is a party.
2. Be designed and operated under appropriate, comprehensive, transparent, consultative, and participatory processes that involve all relevant stakeholders.
3. Contribute to climate change mitigation by significantly reducing GHG emissions as compared to fossil fuels.
4. Not violate human rights or labor rights, and shall ensure decent work and the well-being of workers.
5. Contribute to the social and economic development of local, rural and indigenous peoples and communities.
6. Not impair food security.
7. Avoid negative impacts on biodiversity, ecosystems, and areas of High Conservation Value.
8. Promote practices that seek to improve soil health and minimize degradation.
9. Optimize surface and groundwater resource use, including minimizing contamination or depletion of these resources, and shall not violate existing formal and customary water rights.
10. Air pollution from biofuel production and processing shall be minimized along the supply chain.
11. Be produced in the most cost-effective way. The use of technology must improve production efficiency and social and environmental performance in all stages of the biofuel value chain.
12. Biofuel production shall not violate land rights.

These principles are probably the most comprehensive of all those so far developed, and have clearly benefited from experience gained in preparation of similar CoP (e.g. RSPO). It is significant the principles explicitly deal with issues that are either omitted, overlooked or treated vaguely in many other CoP, most importantly: indigenous people’s rights, land rights, worker’s rights, open consultation, food security biodiversity conservation and climate impacts.

## **2.9 Review and Assessment of Plantation Codes of Practice**

A considerable body of work is now available regarding environmental and social Codes of Practice (CoP) for plantations. This has been generated by national government agencies, international organisations (FAO, CIFOR, ILO, WTO, EU) and NGOs (WWF, IUCN, FSC, RFA), larger plantation corporations (Stora Enso, Sime Derby, Dole Corp.) and processing and marketing organisations (UTZ, C-4, IKEA,



Nestle). Codes of Practice can be regarded as one practical means for implementing Corporate Social Responsibility (CSR) standards in the plantation sector.

More broadly, CoP for tree plantations need to be set within the framework for sustainable forest management (SFM), as many if not most of the principles and practices for SFM are applicable, with added dimensions regarding: i) environmental issues, e.g. monitoring and management of continuing impacts arising from plantation operations, especially use of agrochemicals and during harvesting; and ii) social issues, e.g. the informed consent of traditional land owners/users, land acquisition and compensation, worker's wages and conditions, and a range of OHS issues – that are specific to ITPs.

It is emphasised that the CIFOR, FAO and ITTO guidelines, are 'voluntary'. Hence they lack the imperative, mandatory strength that FSC's Principles and Criteria possess. For example, the word 'should' is widely used in the CIFOR and FAO guidelines, whereas in the FSC code the word 'shall' is commonly employed.<sup>14</sup> Moreover, with voluntary guidelines there is no certified, third-party organisation assigned to or responsible for conducting regular field inspections and periodic performance audits.

### **2.9.1 CIFOR - Code of Practice for Industrial Tree Plantation Development in the Tropics**

The CoP prepared by CIFOR (2001) provides comprehensive detail on most environmental and management issues relevant for preparing and operating plantations, but pays little attention to community and social issues. It does not, for example, address community consultations, property rights and compensation, conflict resolution or grievance procedures, livelihood development issues, or worker's wages and conditions.

The CoP assume the plantation area has been selected in accordance with comprehensive government land use zoning and, implicitly, has no communities living within it or using the land and natural resources in the plantation area. It also assumes there are, at most, only minor wildlife, biodiversity conservation and protection issues. The general approach is mechanistic and bureaucratic. Hence, while it is a valuable manual for plantation planners and managers, and would be useful for organisations monitoring compliance with plantation and SFM practices, it is not directly applicable to current conditions in Laos.

The main topics addressed in the CIFOR document are summarised in Annex 12; the complete digital document can be found in the [CIFOR](#) library; and a hardcopy is in the project archive.

According to CIFOR, but based on earlier work by others, plantation CoP have ten *purposes* – but these are notably less stringent or demanding than *principles*:

1. an expression of plantations managers commitment to SFM;
2. set of minimum standards for improved practices for plantations;
3. capacity to fulfill the criteria and indicators for improved management of

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<sup>14</sup> The importance of this distinction is well illustrated in the core PEFC Technical Document: "The term "shall" is used throughout the PEFC Council documentation to indicate those provisions that are *mandatory*. The term "should" is used to indicate those provisions that are expected to be adopted and implemented." (PEFC 2007:3) emphasis added.

- plantations;
4. support protection of sites of cultural, historical, archaeological, geomorphological, biological and spiritual significance;
  5. guidelines for resource areas for local communities;
  6. guidelines for biodiversity conservation measures for flora and fauna;
  7. support for promoting plantation productivity;
  8. support for improvement of the health and safety of forest workers;
  9. support for maximum economic return from plantations; and
  10. support for an equitable distribution of benefits from the forest.

### **2.9.2 FAO - Responsible Management of Planted Forests: Voluntary Guidelines**

The FAO voluntary guidelines (see Annex 13) are the result of a long, thorough process of international consultation; the process is summarised in the introduction to the guidelines.<sup>15</sup> Representatives of Laos participated, completing a quite comprehensive questionnaire early in the process and participating in preparation of an Action Plan and Logframe later in the process. It needs to be noted that, based on the list of participants, the consultative process was one in which professional foresters dominated.

The FAO identifies twelve principles underlying plantation voluntary CoP, these are:

1. Good governance;
2. Integrated decision-making and multi-stakeholder approaches;
3. Effective organizational capacity;
4. Recognition of the value of goods and services;
5. Enabling environment for investment;
6. Recognition of the role of the market;
7. Recognition of social and cultural values;
8. Maintenance of social and cultural services;
9. Maintenance and conservation of environmental services;
10. Conservation of biological diversity;
11. Maintenance of forest health and productivity; and
12. Management of landscapes for social, economic and environmental benefits.

These principles give greater attention to social and cultural (7 and 8) and environmental (9 and 10) issues and give greater weight to economic and market issues (4, 5 and 6) than CIFOR's. The guidelines are strongly orientated to the priorities and needs of plantation operators and professional foresters, and environment and social issues clearly take second place to technical and financial ones.

### **2.9.3 International Finance Corporation (and World Bank)**

In the past decade the International Finance Corporation (IFC) a member of the World Bank Group has developed a comprehensive suite of Environmental, Health and Safety (EHS) Policies, [Standards](#) and [Guidelines](#). All projects which receive financial support from IFC (or the World Bank) are required to follow these guidelines and comply with the standards – this includes industrial plantations.

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<sup>15</sup> The consultation process is documented in FAO 2006 and 2007.

The EHS Guidelines for Plantation Crop Production (IFC 2007a) focuses on environmental and safety issues related to plantation production, with attention directed to discussing: plantation water use impacts on water resources, ‘safe’ handling of pesticides and IPM as an alternative to indiscriminate use of pesticides, the effects of excessive fertilizer use on water (eutrophication), avoiding loss of biodiversity, the need to minimise emissions of GHG and responsible management of crop and other wastes. The sections on OHS cover: machinery and vehicles, pesticide exposure, confined spaces, and directs attention to the importance of safeguarding community health. The need for effective performance monitoring is briefly covered.

These guidelines are supplemented by comprehensive requirements for environmental and social reviews (IFC 2009) prior to project approval and during implementation. Performance standards for eight classes of impacts related to project ‘sustainability’ are also imposed and their attainment monitored throughout the life of the project (investment) (IFC 2006).<sup>16</sup>

It is not possible to judge how successful use of these policies, guidelines and standards has been, as there is little evidence publicly available. To the author’s knowledge, few if any IFC (or World Bank) projects have ever been cancelled for breaches of these standards. This may be because IFC-funded projects are generally complying with these requirements, or projects improve performance when non-compliance is noted, or because monitoring is less than rigorous.

#### **2.9.4 International Labour Organisation (ILO)**

Within the broader context of Occupational Health and Safety (OHS) management systems for work places (ILO 2001), the ILO has also prepared specific guidelines for forestry (ILO 1998) and agriculture (ILO 2000). The OHS guidelines and CoP make it clear how dangerous forestry and plantation work can be for field staff and, with respect to pesticides and herbicides, to people living in adjacent communities or gathering food from the forest and to terrestrial and aquatic wildlife. They also deal with worker’s exposure to parasites and diseases (respiratory, dermatological) commonly found in forests and plantations. Significant attention is devoted to hazards from (heavy) machinery, load lifting, noise and vibration.

The ILO emphasises that OHS guidelines and CoP are *not* a substitute for national laws and regulations. Many general ILO provisions are relevant to good OHS practices for managing and operating plantations. Implementation of OHS systems requires a management willing to allocate the time and resources necessary for training field managers and staff, hence this usually only occurs when the state has adapted general OHS requirements to national conditions, and devoted the resources necessary to build an effective national labour inspectorate (or equivalent), and monitor and enforce labour laws, regulations and standards.

The ILO general labour standards have also been adopted by some certification systems (e.g. 4C and UTZ, see below) and covers a broad range of labour-related issues, for example:

- Worst forms of child labour (ILO 182);
- Bonded and forced labour (ILO 29 and 105);

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<sup>16</sup> Labor and Working Conditions; Pollution Prevention and Abatement; Community Health, Safety and Security; Land Acquisition and Involuntary Resettlement; Biodiversity Conservation and Sustainable Natural Resource Management; Indigenous Peoples; and Cultural Heritage.

- Prohibiting membership of or representation by a trade union (ILO 87 and 98); and
- Failure to provide adequate housing where required by workers (ILO 110 on Plantations).

### 2.9.5 ITTO - Guidelines for the Establishment and Sustainable Management of Planted Tropical Forests

**ITTO** was established in 1986, and guidelines for plantations issued in 1993. There is a very broad range of 66 ‘principles’ many supplemented by recommendations (see Annex 11 for a summary). These ‘principles’ might be best seen as brief discussions of operational issues associated with establishing, operating and managing plantations, rather than as principles. They are arranged under four headings: Policy and Legislation, Feasibility Assessment, Planted Forest Establishment, and Post Establishment Management. Of the 66 principles eight are directed to discussions of environmental and social issues.

It clear that there is nothing imperative or mandatory in the text of the ITTO ‘principles’ – they are just a series quite a sound and sensible points on issues relevant to competent plantation establishment and management. (They could be seen as a primer for ‘Forestry 101’.) Thus, when PEFC standards requires that an organisation it certifies “shall” adhere to what is specified in ITTO standards, it is not actually referring to something mandatory, but just providing a pointer to what it would be quite sensible for a well-trained professional to do. Hence, the PEFC certification system has deep flaws in the core of its design, and these cannot be addressed by the range of elaborate ISO-derived procedures involved in the certification process.

The ITTO ‘principles’ relating to environmental and social issues are summarised below:

- Principle 17:** Planting trees will usually induce changes in the local biological and physical environment. These changes can be potentially beneficial or harmful, or both.
- Principle 18:** In many environmentally important areas such as steep slopes, catchment areas and degraded watersheds, the establishment of a well-managed forest cover offers many environmental, social and economic advantages
- Principle 19:** Replacement of natural vegetation by planted forest can simplify existing ecosystems. ... their possible negative impacts on ecosystem conservation and overall biodiversity must be carefully assessed.
- Principle 20:** Potential planting sites can have attributes that have archeological, cultural or spiritual significance at the local, national and global levels that may be adversely affected by forestation activities.
- Principle 21:** Natural and planted forests store carbon and exchange a multitude of trace gasses with the atmosphere. They thereby affect micro- and meso-climate and, to a smaller measure, macro-climate.
- Principle 22:** Planting trees can decisively affect social and economic conditions at the national as well as regional and local levels. These effects can be either positive or negative.
- Principle 52:** The long-term success of planted forests and their management for the sustained production ... ultimately depends on their compatibility the regional economy and the economic and land-use policies, as well as

the interest of the local and regional communities, and particularly the interests of the local people

**Principle 53:** Management of planted forests for timber and other benefits can only be sustained in the long-term if it is economically viable. ... [it] must include valuation of environmental services and local subsistence uses of timber and other products, wildlife and services.

In common with the CIFOR and FAO guidelines, while clearly encouraging companies and managers to respect basic environmental and social norms, the emphasis is on management strategies and practices to ensure long-term economic viability and profitability. As with CIFOR and FAO, there is an implicit assumption that land for plantations has been acquired by fully legitimate means, and consultations with and compensation of traditional owners/users has been fully and fairly completed. There is nothing in the ITTO ‘principles’ (which PERC certification almost completely depends upon), to make it plain, for example, that lack of free, prior informed consent (FPIC) by traditional owners/users or failure to pay adequate compensation would disqualify a company from even applying for certification, much less it being awarded.

## 2.9.6 The Forest Dialogue

This dialogue focused on high productivity Intensively-Managed Planted Forests (IMPF) -plantations primarily for wood and fiber production. The dialogue was conducted over the period 2005-08 and sought contributions from 143 people worldwide.

The outcomes of this dialogue was agreement on the following guidelines (TFD Review 2008:5-6):

- good governance, to achieve socially-just and environmentally beneficial outcomes from economically-driven IMPF investments;
- high levels of corporate social responsibility on the part of IMPF businesses, particularly – but not only - where governance is weak;
- respect for the rights of indigenous peoples, based on recognition of the principle of free, prior and informed consent to activities affecting those rights
- empowerment of the forest workforce, including small holders and outgrowers through:
  - maximizing formal employment for workers engaged in “regular” work;
  - promotion of self-organization for small growers and contractors; and
  - honouring ILO core labor standards for all workers.
- effective integrated land-use planning – to protect areas of high conservation and cultural values, to integrate IMPF with other land uses and enterprises, and to mitigate against climate change;
- establishing and enabling dialogue and conflict resolution processes that address the interests and concerns of stakeholders, and promote mutually-beneficial partnerships;
- exploring and implementing models of IMPF-based development which give effect to these principles, such as those articulated by FAO for Responsible Management of Planted Forests.

The results of the dialogue are considered to be relevant to three categories of plantation owners and/or operators, in Laos most plantations would be in the second and third categories (below), but a few companies may already be or soon will be in

the first category:

- Large companies, or in some cases governments, that own or manage large-scale IMPF resources, typically from tens of thousands to hundreds of thousands of hectares;
- Independent growers and landowners, who typically own or manage hundreds to thousands of hectares; and
- Small growers and landowners, whose individual resource base may be as little as a tenth of a hectare, and is often less than ten hectares.

### **2.9.7 Chinese Guidelines for Overseas Silviculture**

The rapid expansion of Chinese plantation companies during the last decade prompted the State Forestry Administration and Ministry of Commerce to prepare and issue these guidelines. The preamble states that all Chinese companies, whether private or state-owned, operating plantations outside China (overseas) must follow these guidelines (SFA/MOC 2007) – see Annex 14 for the full text.

The guidelines are comprehensive and mandatory, specifying in detail what plantation companies “shall” and “shall not” do (the full text can be found in Annex 14). The following major issues are covered:

- 1 Legal Framework
- 2 Silviculture and Forest Management
- 4 Eco Protection
  - 4.1 Bio Diversity Protection
  - 4.2 Forest Protection
  - 4.3 Forest Monitoring
- 5 Community Development

The guidelines are pragmatic and strongly orientation towards a professional foresters approach to good plantation operations and management. Plantations are expected to fully conform to international and national laws and regulations, including tax regulations. Plantations are required to carry out the equivalent of economic and environmental assessment, and use these to prepare management plans. Importantly, there are clear directions to avoid monocultures, favour local tree species and avoid mass felling – i.e. limiting harvesting to less than annual incremental growth. There is a clear emphasis on forest protection, ecosystem conservation, avoidance of forest clearing for plantation establishment and continuing production, via forest disease control and fire prevention .

The requirements for community development include staff and community training, active local community consultation and participation in decision making, especially with ethnic minorities, formal contracts with communities, avoiding violating or weakening local residents forest resource use rights, regular monitoring and reporting and a limited degree of public disclosure.

As with many other CoP, there is an assumption, despite the strictures on community development and rights, that land for a plantation has been acquired legitimately, and local communities prior rights respected. Nor are there provisions for third-party monitoring or sanctions for breaches of the guidelines. Hence, while these guidelines are technically comprehensive, they lack essential accountability and transparency requirements needed to provide a basis for systematic performance monitoring.

## 2.9.8 Common Code for the Coffee Community

This is a certification system for commercial commodity plantations. Although coffee is not one of the crops included, this code – **4C** – is included as a good example of a direct, user-friendly means of stating and explaining principles, criteria and indicators, and defining steps in a process of ‘continuous improvement’ using a “traffic light system” of green, yellow and red coding. All participants are subject to regular and random verification checks.

The code aims to support attainment of the Millennium Development Goals of the United Nations for sustainable livelihoods (bold in original):

- Coffee production can only be sustainable if it allows for **decent working and living conditions for farmers, their families and employees**. This includes **respect for human rights and labour standards** as well as a decent standard of living.
- **Protecting the environment** such as primary forest and conserving natural resources such as water, soil, biodiversity and energy are keys to sustainable coffee production and post-harvest processing.
- **Economic viability is the basis for social and environmental sustainability**. It includes reasonable earnings for all in the coffee chain, free access to markets and sustainable livelihoods.

The 4C aims to exclude “the worst forms of social, environmental and economic practices” by listing these in the preamble to the matrix. These 10 points appear to be non-negotiable, and contravention of one or more eliminate possibility of being considered for certification, all are generally relevant for plantations, some particularly so. These are:

- Worst forms of child labour
- Bonded and forced labour
- Trafficking of persons
- Prohibiting membership of or representation by a trade union
- Forced eviction without adequate compensation
- Failure to provide adequate housing where required by workers
- Failure to provide potable water to all workers
- Cutting of primary forest or destruction of other forms of natural resources that are designated as protected areas by national and/or international legislation
- Use of pesticides banned under the Stockholm convention and listed in the Rotterdam Convention on Persistent Organic Pollutants (POPs)
- Immoral transactions in business relations according to international covenants, national law and practices

The code has three “dimensions” - social, environmental and economic - and the principles and indicators are broadly applicable to plantations of all types. It covers the whole supply chain, from production to processing and marketing.

A “Red Light” means that to be eligible for certification a specific practice must be discontinued, a “Yellow Light” means a specific practice must be improved, and a “Green Light” indicates a desirable practice. If there are more “Green” than “Red” lights for a specific dimension, e.g. Social – then a “average yellow” score allows members of the supply chain to still market the batch of coffee as “Common Code.”

Because the 4C code is regarded as an example to be carefully considered – in terms

of principles, presentation and process –the full matrix for the code is presented in Annex 15.

### **2.9.9 UTZ CERTIFIED Code of Conduct.**

The [UTZ](#) code is a parallel plantation commodity code for tea, coffee, cocoa and oil palm. The approach, in terms of content, is similar to that of the 4C code, but it is not as user-friendly, as soundly based on broad principles or flexible with respect to supporting progressive improvements in performance. For palm oil, the UTZ uses the RSPO standards (UTZ 2009).

The main points of the UTZ code can be found in Annex 16.



## **3 Potential Approaches and Methods**

### **3.1 Introduction**

In parallel to CoP for plantations there are a number of alternative and supplementary approaches potentially available to ensure or encourage environmentally and socially plantation establishment and operations. Broadly, these come under the headings of: Lao laws and regulations, international obligations, incentives and sanctions. These range from observance of national laws and international obligations to measure imposed by financial institutions on borrowers.

### **3.2 National Laws and Regulations**

During the last decade a fairly complete set of environmental and resettlement laws and regulations have been established in Laos. These aim at ensuring that all large projects, including forestry and plantations, follow a set of prescribed steps for environmental and social assessment, and that people and communities who are resettled are consulted and fairly compensated. In general, these laws reflect international good practice with regard to impact assessment procedures and standards, but capacity for reviewing and monitoring them is still far from sufficient; sanctions for companies/projects failing to follow procedures or violating the terms of environmental management plans are rarely imposed.

These laws include the: “Environmental Protection Law” (STEA 1999) and “Regulation on Environment Assessment in the Lao PDR” (STEA 2000). Standards for air and water quality have not yet been established. In addition, and importantly for plantations and other large land-using projects, there now exist laws and regulations on resettlement procedures, including requirements for consultation and fair compensation. These include: “Decree on the Compensation and Resettlement of the Development Projects” (STEA 2005a), “Regulations for Implementing Decree 192/PM on Compensation and Resettlement of People Affected by Development Projects” (STEA 2005b) and “Technical Guidelines on Compensation and Resettlement in Development Projects” (STEA 2005c).

Comprehensive implementation of these laws and regulations, in parallel with the suite of forestry and investment laws, would, arguably, provide a firm basis for CoP for plantations. It would also address, and redress, the range of destructive environmental and social effects known to be occurring. However, in successful implementation requires both political will and sufficient technical capacity, neither of which currently appears to be adequate.

### **3.3 Compliance with International Obligations**

As Laos has become more involved in regional and international political and economic affairs during the last decade it has also acceded to a broadening range of international treaties and agreements. Some of these are directly relevant to the establishment and operation of industrial tree plantations. Moreover, some of these agreements require monitoring to international standards by accredited third party agencies (e.g. projects under the UNFCCC) and may result in externally imposed economic sanctions for non-compliance, e.g. carbon credits.

The main treaties which place limitations and/or obligation on the Lao government with respect to environmental and social matters are as follows (more detail is given in Annex 3): the ASEAN Charter<sup>17</sup> and ITPC on human rights, DRIP on indigenous rights, IPPC on pesticides, CITES on wildlife trade, CBD on biodiversity and CPB on bio-safety, some ILO conventions on labour, and recently the UNFCCC on GHG and climate. In addition, there are agreements being negotiated under WTO for trade and Ramsar for wetlands, which will also contain obligations and limitations.

Almost all of the CoP discussed previously, including those used by plantation companies and processing/marketing organisations, contain sections relating to mandatory compliance with international conventions, including regular inspections by accredited third parties.

### 3.4 Incentives, Sanctions and Finance

Industrial tree plantations in Laos already receive many overt and hidden incentives to establish their business here: access to cheap land, access to cheap labour and, it must be said, lax or non-existent enforcement of many environmental and labour laws and regulations. It is not this kind of incentives that are under consideration here, as here the focus is on incentives and sanctions to observe environmental and social standards.

Incentives come in two types: positive, where, for example, there is an economic premium for adhering to international environmental and social standards; and negative, where market access is denied if the product is not certified as meeting such standards. Negative incentives may be best thought of as a type of sanction, as there is an almost complete lack of government imposed limitations and/or penalties for transgressing environmental and social standards. Lack of willingness to use legal or administrative means to constrain corporations, especially those from the Mekong region (the reverse being more common), severely restricts options for effective sanctions.

The perspectives of the various actors in the ITP sector are quite different with respect to incentives and sanctions. Local people and workers generally seek to defend their (traditional) rights of access and use to land and natural resources and, consequently, their welfare and livelihoods. The plantation companies generally seek to maximise their net income – key issues are whether they take a short-term (1-3 year) or longer-term (5-10 year) approach and to what extent their corporate policy and culture is consistently ‘ethical’. Government, on the one hand, seeks to maximise revenue from rent and taxation and, on the other, to avoid or minimise pressure to defend the rights of otherwise powerless poorer citizens. In Laos corruption, reportedly, plays a large part, especially with respect to consent and compensation for land acquisition, tax avoidance and the maintaining the rights and welfare of local people.

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<sup>17</sup> ASEAN Charter (2007). Purposes: 7. To strengthen democracy, enhance good governance and the rule of law, and to promote and protect human rights and fundamental freedoms, with due regard to the rights and responsibilities of the Member States of ASEAN (p.4); Principles:: 2 (i) respect for fundamental freedoms, the promotion and protection of human rights, and the promotion of social justice; ii) upholding the United Nations Charter and international law, including international humanitarian law, subscribed to by ASEAN Member States (p.8).

### 3.4.1 Incentives

It is difficult to envisage clear economic incentives for intermediate goods (such a rubber) for implementing a CoP where there is no branding and the commodity is used as an input for making a final product (e.g. tyres). In contrast, goods like coffee and tea which sold under specific brand names for direct human consumption, can easily publicise their environment-friendly, organic and/or human rights respecting origins, and possibly charge a premium price.

Trees grown for pulpwood, furniture and wooden products fall somewhere in the middle, with important markets increasingly requiring formal certification by accredited third parties that the trees are not being grown on land cleared of old growth tropic forest or previously belonging to indigenous communities. These legal requirements, which are not just industry initiated standards, are now in place for the European Union and some other large markets, and they are becoming more common, with consumers, reportedly, taking them increasingly into account when making purchases.

Another approach to providing incentives might be to arrange ‘mentoring’ relationships between large plantation companies that have achieved CoP certification and smaller companies (including small holders) who would like to achieve certification but lack in-house technical and manager resources to do so alone. The incentive for the larger company to provide this assistance is an additional supply of certified production to meet fluctuations in demand, the incentive for the smaller company is technical support plus an assured buyer.

A more familiar commercial, way of achieving this is through contractual arrangements between large and smaller plantation operators. These could either take the form on the ‘nucleus estate’ approach, where the large operator more or less fully controls all aspects of what the smallholders do, or a more open contractual approach where the smallholders enter into contracts to supply the large operator an agreed amount at harvest time, with the price set according to an agreed formula. This would be similar to the current ‘2+3’ arrangement used for rubber production. These approaches suffer from the disparity in economic and political power between the large operator and smallholders. This can only be addressed or overcome if the smallholders are able establish an association and act in concert. A smallholders’ association is also an essential element in improving and maintaining environmental, social and economic standards.

### 3.4.2 Sanctions

In the Laos it is considered unlikely in the medium-term there will ever be sanctions applied by government, and the larger the plantation company the less likely. For sanctions to be effective the government first has to know about an infringement of the law or regulation, then have the means for collecting sufficient evidence to make a case, be willing to impose the sanction and then take the necessary follow-up action if it is ignored or the offence repeated. Even if the government (especially at district level) was willing and committed to take these steps, it will be many years before it has sufficient resources to do so effectively.

‘Naming and shaming’ of companies who flout laws and regulations, abuse workers and damage the environment is a tactic that has been used with some success elsewhere. But this relies on an unfettered mass media, a lively civil society with

active NGOs, and individuals and communities willing to speak out publicly. These elements are currently not present in Laos.

### 3.4.3 Finance

Most plantation companies need to borrow funds to establish their operations and pay operating costs until at least their first harvest – typically five to seven years after planting. Banks have become increasingly concerned that companies that do not have a development plan and business model that takes environmental and social issues fully into account all too often also do not have the technical and managerial capacity to make the plantation financially viable and be able repay their loans. The IFC's and World Bank's environmental and social standards, assessment procedures and monitoring requirements have already been discussed. In addition, a growing number of banks have signed up to the environmental and social standards contained in the [Equator Principles](#).

In essence, the banks who have signed up have undertaken to refuse financing for projects that have not conducted proper environmental and social assessments and which do not meet environmental and social standards, including “free, prior and informed consultation” with affected communities, establishing formal grievances mechanisms, public disclosure, legally binding covenants and independent monitoring and reporting.

While the number of Asian banks – likely the first choice for plantation operators in Laos - on the list subscribing to the Equator Principles is small, the number is increasing; many smaller Asian banks seek funds from larger banks who have signed up to the Equator Principles, in theory making themselves subject to the same principles.

The practical problem is that not only does information about anticipated negative impacts of a plantation project usually become available too late to make stopping finance a feasible option, but even when this is available earlier, it is usually very difficult to determine the source(s) of financing due to commercial secrecy.

In principle, being able to deny funds to plantation projects that are not environmentally and socially responsible is an almost ideal way of preventing them going ahead – no money, no plantation, no negative impacts. This is certainly an approach that is worth pursuing in parallel with others, but it would be unwise to expect it to be fully effective or rely on it in the near-term.

## 4 Conclusions and Next Steps

These conclusions are necessarily tentative, given the discussion about CoP and related issues is in a rapid state of evolution and this report has been prepared within a limited time frame.

### 4.1 Conclusions

It is clear that forest and plantation certification systems designed and implemented by organisations dominated by the forest/plantation sector are usually biased towards the economic needs of that sector, and, as a consequence, do not fully incorporate standards that require avoiding or minimalising negative environmental and social effects. The lack of *mandatory* public consultation, especially with forest people and

local communities, is of major concern from the perspective of respect for human rights and welfare.

Thus, the principles and processes used for establishing CoP for plantations should, ideally, be at least as rigorous as those the FSC follows; the final one, Principle 10 of the FSC system, applies specifically to plantations, and requires adherence to all nine prior Principles. The recently developed draft principles for biofuels by RSB provide an excellent example of the range of issues to be included in a CoP, and/or covered by legislation and regulations.

As noted earlier, a combination of ethical, equity and economic considerations can lie behind the decision to commence implementing a CoP, or the decision to make a commitment to seeking certification. The range of benefits to be gained by all parties make it important there is policy and operational support from government, business associations and civil society. In general, given the time, complexity and costs involved in implementation, it is advisable to ensure CoP can at a later date be upgraded into a certification system for ITP products. Gaining access to premium markets offering premium prices by implementing a CoP (or certification) makes it more economically attractive for a producer.

It is considered advisable for Laos to very carefully consider the relative pros and cons of developing a Lao-specific CoP (potentially linked or leading to a certification system) as opposed to adopting one of the existing certification systems. Most CoP and certification systems make provision for adaptation to national conditions and needs, so this need not be a major issue.

For all plantations except Oil Palm, the FSC system of certification is considered the most environmentally and social comprehensive and offers the greatest degree of certainty that responsible norms are being achieved and maintained. Its main drawback is that it is time consuming, expensive and complex to implement – but this appears to be common to all worthwhile systems. These are challenges that, from an owner's or management perspective, are worth accepting if plantation products are being exported into markets where (FSC) certification is required and/or premium prices can be obtained, factors which often go together.

For Oil Palm, the RSPO approach and standards are becoming widely accepted, and like FSC certification, RSPO certification may soon be necessary for some markets; the same holds true for RSB certification. The challenges with RSPO and RSB certification are the same as for FSC certification: time, complexity and cost.

There is an underlying assumption in various CoP and Voluntary Guidelines (e.g. FAO) that land for plantations has been acquired through legitimate means, that location(s) conform to government land use and environmental zoning, that traditional land ownership and usage rights have and will be observed, and, where necessary, adequate compensation has been paid. In countries where there is recent evidence that these assumptions are not valid a much greater emphasis in a plantation CoP needs to be accorded to respect for land rights, land ownership and consultation and compensation issues.

The majority of the CoP are voluntary in nature, and when adopted are not legally binding; usually they have no provisions for financial or administrative sanctions, much less legal prosecution for serious breaches. It is telling that in such voluntary guidelines and CoP it is necessary to include explicit requirements for plantation companies to respect land titles and land acquisition procedures, and fulfill well

established environmental and social assessment, monitoring and management laws and regulations. The clear implication is, plantation companies do not normally observe these laws unless forced to or voluntarily agree to them for financial reasons.

It is clear that forest certification systems designed and implemented by organisations dominated by the forest sector are likely to be biased towards the economic needs of that sector, and, as a consequence, not fully incorporate standards that require avoiding or minimalising negative environmental and social effects. The lack of *mandatory* public consultation, especially with forest people and users, is of concern from the perspective of respect for human rights.

In general, the documents prepared by forestry experts (e.g. FAO and CIFOR) strongly reflect the authors' and organisations' worldview as 'professional foresters', who are now applying their skills and experience in a new field: plantations or, as FAO prefers to call them 'planted forests'. This, arguably, is the reason for lack of emphasis on environmental and social effects of plantations in non-forest contexts, and their focus on traditional technical, economic and marketing issues common to managing (and exploiting) natural forests.

For Laos, Voladet (2009) mapped out what he, and possibly GoL, perceive as the next steps for the plantation sector (see Annex 17). For Laos, the range of issues in the plantation sector, in this case for rubber (arguably the crop with the most severe environmental and social impacts) is explored and analysed in a recent publications by Hicks et al (2009) and Douangsavanh et al (2009); essentially the same conclusions are drawn (for rubber, sugar and for the Mekong region) in an earlier report (Baumuller 2008). The key environmental and social recommendations relevant to establishing a CoP were, in summary, the need to: address gaps in the policy and regulatory framework; protect control over land resources and access to benefits; and consider agroforestry options; and encourage CSR among local and foreign investors.

Given the number and depth of the issues to be addressed, Laos is a difficult context in which to propose a clear or straightforward strategy for developing and implementing a plantation CoP. An implicit assumption for implementing a CoP is that the nation has reasonably fair and functioning legal and governance systems in place – sadly this is not the case in Laos (ADB 2006). There are an increasing panoply of laws, decrees and regulation on the books, but little evidence these in any way seriously constrain the actions of powerful actors or their foreign associates in the plantation sector.

As noted earlier, multinational foreign companies are alert to the advantages of working to an accepted CoP, possibly as a first step in seeking internationally recognised certification. The situation with respect to companies owned by regional investors (Thai, Vietnamese, Chinese) is largely unknown, but most of these exports are destined for countries where there are no requirements for certification, hence there are few economic or legal incentives for them to operate according to an environmental and social CoP, or seek certification. The situation with regard to Lao-owned plantations, in terms of number, size and market orientation requires further investigation.

While the relative situation of these two broad groups of plantation owner/operators requires more investigation, and Lao owners/operators may make a third group, it is likely that the degree of interest in CoP for each group will differ. If this holds true,

then separate strategies are likely to be needed, and the focus initially should probably be on supporting the group(s) known to have strong interest, with a strategy for the other group(s) developed on the basis of further study.

There is no apparent reason why foreign multinational plantation companies need to be involved either with the government or with one another in designing (or adapting) and implementing a CoP. On the other hand, there are potential advantages in mutual cooperation between the companies, i.e. sharing of expertise, experience and costs – regardless of whether or not there is government involvement.

## 4.2 Developing a Lao ITP Code of Practice

There are a wide range of partners potentially available for collaboration on developing a CoP for plantations in Laos. However, it may be advisable to have one lead government organisation to validate and guide the process, even though many potential participants will need to be actively engaged. Based on a survey of experience in developing CoP, it is clear the range of participants needs to be inclusive rather than exclusive, drawing in all parties involved in or closely connected to the plantation sector, including smallholders and large operators.

Given the large number of interested and affected parties who potentially have an interest in the standards and procedures incorporated in a CoP, it is suggested a “roundtable” discussions process be adopted. A model for this process are those used for developing the CoP for palm oil RSPO and more recently, RSB - similar to the processes for developing other CoP reviewed. These are different, it should be noted, from processes used by FAO, ITTO and CIFOR for developing their guidelines, because explicit provision is made for including many participants and types of expertise from outside the forestry profession.

Broadly, the classes of organisations include the following:

- Government agencies - e.g. planning, forestry, environment, land, social;
- Private sector plantation companies – foreign multinationals;
- Private sector plantation companies – Lao and regionally owned;
- Academic institutions;
- National, environmental, social and community development NGOs;
- Social and community development NGOs from areas affected by plantations;
- Plantation business associations;
- Independent sector specialists; and
- Foreign donors concerned with the plantation sector.

The range of potential Lao government organisations from which to propose a lead agency include at least the following:

- Ministry of Planning and Investment (MPI), Department of Planning (DoP);
- WREA, Department of Environment (DoE);
- Ministry of Agriculture and Forestry (MAF), Department of Forestry (DoF);
- Land Management and Development Administration (NLMA); and
- Ministry of Industry and Commerce (MIC), Department of Production and Trade (DPT); and

Two of these agencies already have a defined role in oversight of plantation establishment : MPI and WREA; two other agencies have roles to play with regard to land suitability (and titling) NMLA, and management of forest lands and timber

products, MAF/DoF. Importantly, both MPI and WREA have fully mandated roles with respect to plantation establishment: MPI via its role in licensing, oversight and management of investments, both domestic and foreign; WREA/DoE, via a mandatory requirement for oversight of the EIA/SIA process prior to the issuing of an ‘Environmental Certificate’.<sup>18</sup> At least in theory, without completing the prescribed processes and gaining formal approval from both these agencies it is not possible (legal) to locate and establish a large industrial tree plantation. It is common knowledge that these processes are not working properly, but the fact remains a formal assessment and approval system does exist and could be improved.

Historically, the Department of Forestry (DoF) has assumed responsibility for plantations, on the grounds that plantations are commonly established on land over which DoF exerts control and the fact that plantations usually grow trees. However, even if management of plantations and CoP remains with DoF, when preparing or adapting a CoP full account will need to be taken of the fact that DoF currently possesses little capacity for environmental assessment and management, and probably less capacity for socio-economic assessment and community development – both essential elements of a fully rounded CoP.

Hence, preparation of a plantation CoP will also need to draw on expertise from a wide range of professions and disciplines outside forestry, and means for facilitating inputs from these sources of expertise will need to be developed. In addition, as noted earlier, logically a CoP should be one of the initial steps on the path to certification according to international standards. This implies experts from at least one of the accredited standards organisations (e.g. FSC, RSPO) will need to participate actively in developing the Lao plantation CoP.

Below is a preliminary listing of some of the other organisations who could be invited to participate in the process:

- National Agriculture and Forestry Research Centre;
- Faculty of Forestry, National University of Laos;
- National Agriculture and Forestry Extension Service;
- Lao Tree Plantation Association;
- IUCN Laos/ Regional;
- WWF Greater Mekong; and
- Relevant donor organisations.

### 4.3 Possible Scenarios

Three strategic scenarios for consideration are outlined, these could provide an initial basis for discussions on to potentially to provide assistance for developing a plantation CoP:

- Foreign multinational plantation companies, individually or as a group, could proceed independently, even though other plantation operators may have little interest in developing a CoP, then a decision will need to be made how much support to provide to each of these groups.
- If foreign multinational companies decide they would prefer to collaborate with the government, potentially with support from FAO, a decision will need

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<sup>18</sup> With respect to land acquisition and compensation, the formal requirements for this are fully defined in a Decree () and Technical Guidelines



to be made (on the basis of information not yet available) about the nature and extent of additional support that might be suitable and/or necessary.

- If government's policy becomes that all large plantation companies, regardless of ownership, must over time conform to a government specified or approved CoP, whether to provide support and the nature of that support will need to be decided.

One of the key issues will be deciding – by whom it is not clear at present – if Lao is ready for and wants to make preparations to introduce CoP for plantations? This is closely linked to issues to do with to what extent the plantation companies in Laos, and the government as a matter of economic policy, want to ensure access to premium markets which increasingly insist on certification according to international standards.

#### **4.4 Next Steps**

The potential next steps that could be taken, by donors, NGOs and/or government, separately or in conjunction are as follows:

- Assess if pre-conditions in Laos make developing and implementing plantation CoP feasible and offers potential for markedly reducing a widening range of increasingly severe negative environmental and social costs, especially those adversely affecting the rights and welfare of ethnic and poorer communities.
- If the pre-conditions exist or soon will exist, identify an appropriate government partner(s) to sponsor and support the process of adapting an existing or developing a CoP.
- If the pre-conditions do not exist or will not soon exist, identify alternative approaches for alleviating increasingly severe and cumulative environmental and social impacts.
- If it is decided to go ahead, conduct a series of multi-stakeholder, fairly informal workshops to clarify and agree on a strategy and timeframe for initiating a more formal and sustained roundtable CoP discussion and drafting process.
- Conduct the roundtable CoP discussions and drafting process until complete.

## References Cited

- ADB (2006) “Lao PDR: Governance Issues in Agriculture and Natural Resources: A Case Study from the 2005 Sector Assistance Program Evaluation for the Agriculture and Natural Resources Sector in the Lao People’s Democratic Republic.” Manila.
- Applegate, G. & Raymond, D. (2001) “Code of Practice for Industrial Tree Plantation Development in the Tropics.” CIFOR, Bogor.
- Association of Southeast Asian Nations (ASEAN) (2007) “The ASEAN Charter.” Singapore.
- Barney, K. “A Note on Forest Land Concessions, Social Conflicts, and Poverty in the Mekong Region. ?” International Conference on Poverty Reduction and Forests: Tenure, Market and Policy Reforms Bangkok, 3-7 September 2007, Regional Community Forestry Training Center for Asia and Pacific (RECOFTC), Bangkok.
- Barney, K. (2009) “Laos and the making of a ‘relational’ resource frontier.” *The Geographical Journal*, Vol. 175, No. 2, June 2009, pp. 146–159.
- Baumuller, H. (2008) “Prospects and drivers for agricultural change in the Mekong region: The case of sugar, rice and rubber.” WWF, Vientiane.
- Bird, K (2008) “‘Voluntary’ Migration in Lao People’s Democratic Republic.” Policy Brief No 3. Prepared for the World Development Report 2009, ODI.
- 4C (2008) “Common Code for the Coffee Community.” Common Code for the Coffee Community Association, Bonn.
- Douangsavanh, L., Thammavong, B. and Noble, A. (2009) “Meeting Regional and Global Demands for Rubber: A Key to Poverty Alleviation in Lao PDR?” Sustainable Mekong Research Network, Bangkok.
- Dove, M.R., Sajise, P.E. and Doolittle, A.A. eds. (2005) “Conserving Nature in Culture: Case Studies from SE Asia.” Yale UP, New Haven.
- Equator (2006) “The Equator Principles.”
- FAO (2005) “Code of Best Practices for Planted Forests.” Powerpoint presentation, Rome.
- FAO (2006) “Responsible management of planted forests: voluntary guidelines.” Planted Forest and Trees Working Paper 37/E, Rome.
- FAO (2007a) “Responsible Management of Planted Forests: Guidelines for Action - Methodology.” Rome.
- FAO (2007b) “Corporate Private Sector Dimensions in Planted Forest Investments.” Working Paper FP/40E, Rome.
- FAO (2008a) “Towards Sustainable Management of Planted Forests: Planted Forests and Trees Working Paper 41E.” Rome.
- FAO (2008b) “Wood from planted forests - A global outlook 2005 – 2030.” Rome.

- FERN (2001) “Behind the Logo: An environmental and social assessment of forest certification schemes.” UK.
- FERN (2004) “Footprints in the forest” Current practice and future challenges in forest certification” UK.
- Forest Stewardship Council (FSC) (2002) “FSC Principles and Criteria for Forest Stewardship.” Bonn.
- FSC (2007) “FSC Standard for Chain of Custody Certification FSC-STD-40-004.” Bonn
- FSC (2008) “Standard for Multi-site Certification of Chain of Custody Operations FSC-STD-40-003.” Bonn
- Fox, J.M. (2000) “How Blaming ‘Slash and Burn’ Farmers is Deforesting Mainland Southeast Asia.” Analysis from the East-West Centre, No. 47, December 2000.
- GTZ (2004) “Study on Land Allocation to Individual Households in Rural Areas of Lao PDR.” Vientiane.
- GTZ (2005) “Study on Land Markets in Urban and Rural Areas of Lao PDR.” Vientiane.
- GTZ (2006) “Study on State Land Leases and Concessions in Lao PDR.” Land Policy Study No. 4 under LLTP II, Vientiane.
- Hanssen, C.H. (2007) “Lao land concessions, development for the people?” International Conference on Poverty Reduction and Forests: Tenure, Market and Policy Reforms Bangkok, 3-7 September 2007, Regional Community Forestry Training Center for Asia and Pacific (RECOFTC), Bangkok.
- Hicks, C., Voladeth, S., Shi, W., Guifeng, Z., Lei, S., Tu, P.Q. and Kalina, M. (2009) “Rubber investments and market linkages in Lao PDR: approaches for sustainability?” Sustainable Mekong Research Network, Bangkok.
- IFC (2006) “Performance Standards on Social & Environmental Sustainability.” Washington, DC.
- IFC (2007a) “Environmental, Health, and Safety Guidelines for Plantation Crop Production.” Washington, DC.
- IFC (2007b) “Environmental, Health, and Safety General Guidelines. “Washington, DC.
- IFC (2009) “Environmental and Social Review Procedures.” Washington, DC.
- ILO (1998) “Safety and health in forestry work: An ILO code of practice.” International Labour Organization, Geneva.
- ILO (2000) “Safety and health in agriculture.” International Labour Organization, Geneva.
- ILO (2001) “Guidelines on occupational safety and health management systems.” International Labour Organization, Geneva.
- ITTO (1992) “Guidelines on the sustainable management of natural tropical forests.” Yokohama.

- ITTO (1993a) “Guidelines on the conservation of biological diversity in tropical production forests.” Yokohama.
- ITTO (1993b) “Guidelines for the establishment and sustainable management of planted tropical forests.” Yokohama
- Kanowski, P. and Murray, H. (lead authors) (2008) “TFD Review of Intensively Managed Planted Forests: Toward best practice.” The Forest Dialogue, NY.
- Lang, C. (2002) “The Pulp Invasion: The international pulp and paper industry in the Mekong Region.” World Rainforest Movement.
- Lang, C. (2008) “Plantations, Poverty and Power: Europe’s role in the expansion of the pulp industry in the South.” World Rainforest Movement.
- Lang, C. and Shoemaker, B. (2006) “Creating Poverty in Laos: The ADB and Industrial Tree Plantations.” World Rainforest Movement briefing paper.
- MAF (2008a) “Rural Land Management and Administration” Policy Brief #2, Ministry of Agriculture and Forestry, The Sub-Working Group on Uplands Development, Vientiane.
- MAF (2008b) “Pro-Poor Institutional Development. “Policy Brief #3, Ministry of Agriculture and Forestry, The Sub-Working Group on Uplands Development, Vientiane.
- Midgley, S. (2006) “Position Paper on Tree Plantation Sector Development in Lao PDR.” Forestry Strategy 2020 Implementation Promotion Project, Department of Forestry, Vientiane.
- NLMA/GTZ (2008) “Land Lease and Concession Inventory Project in Lao PDR.” Progress Report on Phase I, Vientiane.
- Nussbaum, R. and Simula, M. (2004a) “Forest Certification: A Review of Impacts and Assessment Frameworks.” The Forests Dialogue, Yale University, School of Forestry & Environmental Studies, New Haven.
- Nussbaum, R. and Simula, M. (2004b) “Forest Certification: A Review of Impacts and Assessment Frameworks - Annex.” The Forests Dialogue, Yale University, School of Forestry & Environmental Studies, New Haven.
- PEFC (2007) “PEFC Council Technical Document.” (including annexes) Geneva
- Poulsen, J. & Applegate, G. (2001) “Linking C&I to a Code of Practice for Industrial Tropical Tree Plantations.” CIFOR, Bogor.
- Obein, F (2007) “Assessment of the Environmental and Social Impacts created by the VLRC Industrial Rubber Plantation Proposed Environmental and Social Plans.” Prepared for Agence Francaise de Developpement, Earth Systems, Vientiane.
- PEOLG (1998) “Pan-European Criteria and Indicators for Sustainable Forest Management.” adopted by the Third Ministerial Conference on the Protection of Forests in Europe in Lisbon/Portugal in June 1998 as annex 1 of the Resolution L2 (Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management. (<http://www.mcpfe.org>).

- Rainforest Foundation (2005) “Irrational Numbers - Why the FAO's Forest Assessments are Misleading – 2005” London.
- Roundtable on Sustainable Biofuels (RSB) (2008) “Global principles and criteria for sustainable biofuels production: Version Zero.” Lausanne.
- Sigaty, T. (2003) “Report on Legal Framework of Forestry Sector for Forestry Strategy 2020 Lao PDR.”
- SFA/MOC (2007) “Guide to Overseas Sustainable Silviculture by Chinese Enterprises.” State Forestry Administration and Ministry of Commerce, Beijing.
- STEA (1999) “Environmental Protection Law.” No. 99/02/NA, 3 April 1999, Vientiane.
- STEA (2000) “Regulation on Environment Assessment in the Lao PDR.” No: 1770/STEA, Vientiane.
- STEA (2005a) “Decree on the Compensation and Resettlement of the Development Projects.” No 192/PM, 7 July, 2005, Vientiane.
- STEA (2005b) “Regulations for Implementing Decree 192/PM on Compensation and Resettlement of People Affected by Development Projects.” No 2432 /STEA, 11 November 2005, Vientiane.
- STEA (2005c) “Technical Guidelines on Compensation and Resettlement in Development Projects.” Prime Minister’s Office, Vientiane.
- The Forests Review (TFD) (2008) “Intensively Managed Planted Forests - Toward best practice; Summary and Recommendations from TFD’s IMPF Initiative: June 2005 – June.” 2008, Yale UP, New Haven.
- Voladet, S. (2009) “Sustainable Development in the Plantation Industry in Laos: An Examination of the Role of the Ministry of Planning and Investment.” International Institute for Sustainable Development, Winnipeg.
- World Bank (1994) “Environmental Assessment Sourcebook.” Volumes II Sectoral Guidelines, Washington, DC.
- UTZ ( 2009) “UTZ CERTIFIED Good Inside Certification Protocol.” Amsterdam.
- Ziegler, A.D. Fox, J.M and Xu, Jianchu (2009) “The Rubber Juggernaut.” Science, Vol. 324, 22 May 2009.