

THE WORLD BANK

**PROPOSAL FOR TYPOLOGY OF
ILLEGAL LOGGING**

by

Esa Puustjärvi

Draft

**Savcor Indufor Oy
Helsinki
August 4, 2008**

Copyright © 2005 by Savcor Indufor Oy

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including, but not limited to, photocopying, recording or otherwise.

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	ILLEGAL LOGGING IN SELECTED COUNTRIES	1
2.1	Framework for Analysis	1
2.2	Asia	2
2.2.1	Myanmar	2
2.2.2	Cambodia	4
2.2.3	Indonesia	7
2.3	Africa	9
2.3.1	Cameroon	9
2.3.2	Liberia	11
2.4	Latin America	14
2.4.1	Brazil	14
2.4.2	Honduras	16
2.5	Central Asia and Eastern Europe	18
2.5.1	Armenia	18
2.5.2	Russia	19
2.5.3	Serbia	22
3.	IDENTIFYING POTENTIAL MEASURES	23
3.1	Type of Responses	23
3.2	Prevention	23
3.2.1	Improved Governance	23
3.2.2	Improving the Demand – Supply Balance of Essential Forest Products	26
3.3	Detection	28
3.4	Suppression	29
4.	STRUCTURE OF THE TYPOLOGY	31
5.	TYPICAL CONTEXTS FOR ILLEGAL LOGGING	32
5.1	Illegal Logging for Securing Subsistence	32
5.2	Small-scale Illegal Logging to Enhance Livelihoods	33
5.2.1	Local People Harvesting Illegally in Public Forests	33
5.2.2	Community Forests	34
5.2.3	Privately-owned Forests	35
5.3	Large -scale Commercial Illegal Logging	35
5.3.1	Illegal Logging in Forest Land	35
5.3.2	Illegal Conversion of Forest Land	37
5.3.3	Conflict Timber	37
6.	TO LAUNCH OR NOT TO LAUNCH	38
7.	REFERENCES	40

LIST OF FIGURES

Figure 4.1	Framework for Analyzing Drivers Behind Illegal Logging	32
------------	--	----

LIST OF BOXES

Box 2.1	Example of Available Estimates on the Extent of Illegal Logging in the Amazon	14
Box 2.2	Development of Chinese demand for Russian timber	21

ABBREVIATIONS AND ACRONYMS

%	percent
AAC	Annual Allowable Cut
BRIK	Indonesia's Forest Industry Revitalisation Body
CFA	Communauté Financière Africaine (franc)
AFE-COHDEFOR	Administración Forestal del Estado Corporación Hoñdurena de Desarrollo Forestal
DFID	Department for International Development
EIA	Environmental Investigation Agency
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDA	Forestry Development Authority
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement, Governance and Trade
G-8	The Group of Eight Countries
GDP	Gross Domestic Product
ha	hectare
HPH	Forest concession
HTI	Nationally authorized industrial timber plantation
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis
km ²	square kilometer
m ³	cubic meter
MFP	Multi stakeholders Forestry Programme
MINEF	Le Ministère de l'Environnement et des Forêts du Cameroun
MTE	Myanmar Timber Enterprise
NGO	non-governmental organisation
NRM	Natural Resources Management Programme
NTGL	National Transition Government of Liberia
RWE	roundwood equivalent
UN	United Nations
US	United States
USD	United States Dollar
VAT	value-added tax
WTO	World Trade Organization
WWF	World Wide Fund for Nature

1. INTRODUCTION

Illegal logging has been identified as a major problem for the forest sector worldwide, and a number of international, regional and country-level initiatives have been launched to address the problem. These include, *inter alia*, the adoption of the G-8 Forest Action Program (with a key focus on illegal logging), the European Union's Forest Law Enforcement, Governance and Trade (FLEGT) Regulation and Action Plan, the United States' President's Initiative on Illegal Logging, as well as several initiatives to develop bilateral Memorandums of Understanding between important producer and consumer countries. Efforts are also made by several agencies to link forest governance related programs with support to broader governance reforms.

The Environment Strategy for the World Bank (2001) emphasizes the comparative advantage of the Bank in supporting better governance, increased transparency, access to environmental information and public participation in the client countries. In its 2002 Forest Strategy, the Bank has committed to collaborate with borrower countries and partners to reduce by half the estimated annual financial losses from illegal logging by 2013. Since 2001 the World Bank has been contributing to these efforts on several fronts, both in practical and conceptual terms. With respect to conceptual development, the Bank is currently preparing its strategy on Forest Law Enforcement and Government.

This report attempts to contribute to the Bank's strategy process by developing a typology for contexts where illegal logging occurs. The report also puts forward recommended responses for addressing illegal logging in each context. The proposed typology draws extensively on the current debate on illegal logging which has been proliferating both at international and national levels. The aim here is to structure and present the proposed approaches in a manner that facilitates the identification and transfer of successful strategies and enables countries to benefit from the experience of others.

2. ILLEGAL LOGGING IN SELECTED COUNTRIES

2.1 Framework for Analysis

The development of typology relies on an analysis on illegal logging in selected countries. Ten countries have been identified to represent a variety of regions and contexts. The selection includes Cambodia, Myanmar and Indonesia from Asia; Cameroon and Liberia from Africa; Brazil and Honduras from Latin America, and; Armenia, Russia and Serbia from Eastern Europe and Northern Asia.

Owing to time constraints the analysis was conducted as a desk study relying on a few selected documents. The presentation is concise as only the most salient features of illegal logging in each country are highlighted. Nevertheless, it is believed that the main features relevant to the development of typology were captured.

The analysis comprises four components (i) context, (ii) extent, (iii) types, and (iv) drivers of illegal logging. The account on the context provides the basic facts on the forest resource, its significance for country economy and environment as well as ownership arrangements. The extent of illegal logging illustrates the magnitude of the problem based on best available data. When analyzing the types of illegal logging the focus is identify the main infractions as well

as the various groups involved in various types of illegal logging. The discussion on drivers attempts to highlight the factors underpinning and fomenting illegal logging in each country.

2.2 Asia

2.2.1 Myanmar¹

Context

The most recent Food and Agriculture Organization of the United Nations (FAO) assessment estimated that Myanmar's forest cover at 34 million ha or 52% of the total land area. Myanmar is made up of temperate (25%) and tropical landscapes (75%) falling within the Indo-Burma biodiversity hotspot, and bordering the South Central China hotspot to the north in Kachin State. Myanmar is one of the most biologically diverse countries in mainland Southeast Asia and has a large number of endemic species.

In 2004-05, forest products were the Myanmar's second most important source of legal foreign exchange, amounting to USD 427.81 million and 15% of the total.

Forests are in state ownership except for areas controlled by groups with which Myanmar's military regime has made ceasefire agreements. They often give the groups control over natural resources including timber.

The current situation regarding the exploitation of Myanmar's forests is inseparable from the wider political process in Myanmar. The military regime's policies regarding logging contribute to management of internal and foreign relations through the control of access to natural resources. Apart from the ceasefire agreements, external relations with both China and Thailand have been managed by controlling their access to forests and other resources.

Extent of Illegal Logging

Available estimates on illegal logging are based on comparison of import export statistics in Myanmar and neighbouring countries. In 2003-04, a minimum 1.3 million m³ roundwood equivalent (RWE) of timber exports, almost two-thirds of the total, were estimated to be illegal i.e. the sum of imports in neighbouring countries exceeded official export figures of Myanmar by this amount.

Illegal logging appears to concentrate in the border areas controlled by insurgent groups and where the demand from neighbouring countries is strong. Illegal logging occurs also in areas controlled by the military regime but it appears less intense.

The vast majority of timber illegally exported from Myanmar is destined for China. In 2003, China recorded imports of 1.3 million m³ RWE of timber from Myanmar; about 98% of this volume was not accompanied by certificates of country origin and quarantine which is illegal according to Chinese legislation. The illegal cross-border timber trade has increased by almost 60% between 2001 and 2004.

¹ This chapter is based mainly on report Global Witness 2005a.

The estimates on illegal logging are based on the assumption that illegality arises from contravention of national laws. However, given the ethnic minority claims for some degree of self-governance, the issue of legality is not clear. It is not known what proportion of the timber considered “illegal” came from areas controlled by insurgent groups but it may be disputable whether it should be termed “illegal”.

Types of Illegal Logging

Illegals in the area controlled by the Myanmar military regime are related mainly to corruption. It is suspected that corrupt officials benefiting from timber trade are found in the highest levels of government. Also, army units engage in informal business activities such as logging and mining to make up shortfalls in government budget funding. Different levels of the army are involved in logging in different ways. Such involvement may be institutionalised or purely motivated by self-interests.

Other state agencies such as the Forest Department and Military Police reportedly levy unofficial fees from trucks passing their checkpoints. Local villagers may also be involved in illegal logging collaborating with more organised groups. There are also reports of villagers being used as forced labour by armed groups and the military.

All ceasefire groups engage, or have engaged in logging and some of the most serious deforestation has occurred in ceasefire areas. The ceasefire groups also levy fees from timber passing through their area to export markets. Some ceasefire areas have effectively become autonomous regions. The military government’s access to such areas is by arrangement and state bodies such as the Forest Department do not have the authority to work there. Even where the Forest Department has access to a ceasefire area, enforcement of forestry regulations appears weak.

The timber revenue and control of the trade on the border has enabled the ethnic insurgents to finance their side of the conflict. However, the relationships between implicated parties are complex; the military regime, insurgent groups, armed bandits and private companies from abroad collaborate in fragile, frequently altering constellations. In an unstable situation military and short-term financial objectives easily override other concerns such as sustainability. It is also evident that combatants on all sides have used their privileged positions for personal enrichment.

On the Chinese border logging and the opium trade are inextricably linked: drug traffickers have invested in logging to launder money, and logs have been hollowed out to conceal drugs. Drug eradication schemes have been used to justify large-scale logging, by providing opium farmers with an alternative income.

Main Drivers

Lack of established governance framework in border regions; Competition over territory between armed opposition groups, business interests and others, seeking to control the timber trade has led to a situation where the distinction between legal and illegal activities gets blurred. This has made any attempt by the relevant authorities to manage the resource and subsequent revenue flows extremely difficult.

Overriding need to generate foreign exchange; The military regime sets production targets for foreign exchange-producing government institutions including the forest sector emphasizing financial considerations. For instance, Annual Allowable Cut (AAC) has been recently revised but it is not necessarily used as an absolute ceiling to the amount of timber that can be logged but rather as a guideline.

Demand for timber in neighbouring countries; China is now the world's second largest timber importer after Japan; both in total and of tropical timber (excluding Canadian exports to the US). The logging bans imposed by the Thai and Chinese government in 1988 and 1998, respectively, have increased pressure on timber resources in Myanmar. Wood processing industries in the Yunnan province have shifted their supply to Myanmar, and both Thai and Chinese industries are regrouping in the areas along the Myanmar border.

Weak control of illegal imports in countries sourcing timber from Myanmar; While the legal frameworks in China and Thailand include stipulations preventing imports of illegal logs, these laws are not vigorously enforced, possibly because of undue political influence.

Weak governance in areas controlled by the Myanmar military regime; A key factor in the decline of controlled forest management in Myanmar (outside the border regions) has been the relative weakness of the Forest Department in relation to the Myanmar Timber Enterprise (MTE). As the income generating body of the Ministry of Forestry, the MTE has more resources and political influence than the Forest Department, which is responsible for good forest management but is not a revenue-raising department. Occupying all key administrative posts, the military regime may also use its influence to authorize activities which violate existing regulations.

2.2.2 Cambodia

Context

According to the latest FAO estimate (2000), Cambodia has 9.3 million ha of forest which represents about 53% of the total land area. Forests provide a range of environmental services, which have benefits outside the immediate area of the forests, especially protection for watersheds. Cambodia also possesses many features of international conservation significance. In particular, it retains one of the highest proportions of land as natural habitat (forest and wetlands) in the world.

Forestry has made a relatively small contribution to both national revenue and to GDP, not exceeding 4% and 8% respectively since 1994 (Independent Forest Sector Review 2004).

Forests are in state ownership and about a quarter of them has been allocated to private companies as concessions. However, the introduction of a moratorium on harvesting and transport of timber in 2002 has effectively made the concessions defunct.

Extent of Illegal Logging

The World Bank studies in Cambodia in 1997 suggested that illegal extraction, worth USD 0.5–1 billion, was over 4million m³ a year, at least ten times the size of the legal harvest. After the moratorium on logging and harvesting was introduced, illegal logging reduced significantly even though it has not been fully eliminated.

Types of Illegal Logging

Illegal commercial logging has been associated with the concession system when it was operational. Illegal activities in concession areas were facilitated by corruption both at high and low level. The concession agreements were opaque, inconsistent and sometimes physically overlapping. Allocation of concessions was facilitated by corruption and it was reportedly subject to undue political influence (Global Witness 2001b).

Before the moratorium, many Department of Forestry and Royal Cambodian Armed Forces staff at the grass roots level were allegedly paid directly by the concessionaires for ignoring contraventions of concession agreements (e.g. harvesting more and elsewhere than prescribed). Some community chiefs may also have benefited from facilitating illegal activities (Global Witness 2001b).

Concessionaires were not always in a position to stop businesses and powerful local organisations and individuals to carry out illegal logging. Even though the concessionaires may have formed business relationships with these individuals (often employing them as harvesting sub-contractors) they carried on illegally harvesting timber within the concessionaires' own area (Miller 2004).

Concession agreements had only limited provisions for the local people's customary rights to continue their activities such as tapping resin, or engaging in small-scale commercial logging. Those who continued their practise were technically committing illegal acts (Global Witness 2002a).

The moratorium on logging and transportation shifted the nature and scale of illegal logging from commercial to small sized wood, from large to small scale operators, from a few players to many and from export to domestic markets (Independent Forest Sector Review 2004).

Based on a case study in Aural Wildlife Sanctuary, most timber dealers currently focus on providing buyers in Cambodia and Vietnam with timber that has already been processed into planks using chainsaws or sawmills. The reasons are shift in market demand and the risk of violating the moratorium on roundwood transport. Typically, when an order is placed, the timber trader hires chainsaw operators and sawmills to cut and process the logs, which are then delivered to the customer (Global Witness 2004).

Illegal timber trade is allegedly protected by military units and other state agencies, such as the police who charge informal fees for this service. Illegal taxation of the industry takes two main forms. collection of fees from traders and equipment operators as well as levying fees on transports of wood through checkpoints along tracks in the forest and the road. The illegal taxes are collected by those agencies with a permanent presence in the field, military officers, military police, police, local government officials and Forest Administration staff. It is alleged

that junior functionaries and soldiers are expected to collect bribes and pass a high proportion of the takings up the chain of command. In return, their superiors ensure that they are protected from law enforcement (Global Witness 2004).

The role of local communities and their potential negative impact on the forest is difficult to determine. Communities with a history of living in or adjacent to forest rely on forests for a range of goods and services and apparently have little or no negative impact. In some cases the local communities are supplied with chainsaws free of charge in return for felling and cutting timber. Villagers have the right to cut a limited amount, 12 m³, from state forest to construct a house. On occasions this right is exploited and the timber finds its way on to the open market (Miller 2004).

Those communities that have become newly established in forest areas - particularly if they are clearing the forest for permanent agriculture - do have negative impacts, but the scale is unclear. Encroachers and migrants have also engaged in commercial illegal activities, mostly on a small-scale. To some extent these activities may have been driven by poverty but some rather well-to-do individuals have also been involved (Miller 2004, Global Witness 2002a).

Drivers

Unused milling capacity in Cambodia; As there is virtually no legal supply, the concessionaires driven by the need to feed their mills have no incentive to check or regulate their sub-contractors and suppliers (Independent Forest Sector Review 2004).

Strong demand from neighboring countries; There is a ready market within the region (mostly in Thailand and Vietnam) for very valuable forest products (Independent Forest Sector Review 2004).

Lack of alternative income; There are groups of military, regularly or irregularly living in or near forest areas who have no alternative forms of income and no major tasks to accomplish. Through current or previous military connections with neighbouring countries they may have access to informal export markets (Independent Forest Sector Review 2004).

Lack of recognition for traditional and customary rights; The concession agreements generally do not recognize traditional or customary rights and do not make provisions for local people to exploit the forest. The local people, who maintain that they have these rights, continue logging within concession boundary which technically amounts to illegal logging.

Inadequate legal framework; The set of laws and legal texts governing forest activities is incomplete and most legal provisions are circulars, declarations and guidelines. Penalties are not provided for explicitly and thus depend on decisions, often arbitrary, from Department of Forestry and Wildlife and the Minister of Agriculture. The regulations have some effect only when dealing with small-scale offenders but conviction of corrupt officials at higher levels is rare (Global Witness 2002a).

Ineffective law enforcement; There are few, poorly paid enforcement staff covering a wide area with limited resources and so there is scope to negotiate private deals. The forest area is huge, the boundaries are long, and access is limited. The negative impacts on a business or individual caused by law breaking are negligible. The commercial incentives to log illegally

have in the past been strong because of the Government's weak enforcement capacity and high taxes on felled logs (Miller 2004).

Ineffective and poorly organized judiciary; The prosecution of illegal logging is difficult to undertake and jurisdiction to deal with forest crimes is spread amongst many institutions. There are no mechanisms or established procedures on how these government institutions are meant to cooperate (Global Witness 2002a).

2.2.3 Indonesia²

Context

Indonesia is endowed with 100-125 million ha of forests - recognised to be among the most bio-diverse in the world. Over the last 50 years, Indonesia has lost approximately 25-40% (40-60 million ha) of its forest cover.

While pressures on forests arise from a number of different sources (including agricultural expansion, plantation expansion, shifting cultivation, mining, road building and transmigration); and result from a complex interaction of forest and non-forest regulatory policies, it is generally recognised that a major source of forest degradation and deforestation in Indonesia has been illegal logging.

Extent

Estimates on the extent of illegal logging are extremely variable. For instance, Indonesia's Forest Industry Revitalisation Body (BRIK) argues that none of Indonesia's official timber exports have been harvested illegally, while forest data analysts (i.e. Brown 2002 & Tacconi *et. al.* 2004) have estimated that 76-82% of Indonesia's timber is harvested illegally.

Types

While countless definitions of illegal logging exist, there appears to be some consensus emerging that illegal logging includes a broad array of legal violations that result in the over-exploitation of forest resources. These violations occur at all stages of the timber production chain, i.e. wood harvesting, transportation of raw material, processing and trading; and even include the use of corrupt means to gain access to forests and financial violations such as tax evasion. Violations also occur because most of the administrative boundaries of the national forest estate, and most of the nationally authorized forest production units that operate within it, are not demarcated on the ground with the required involvement of local communities.

There are essentially three types of illegal logging. *The first type* is carried out by nominally legal operators (i.e. timber concessions holding a permit to selectively harvest timber (HPH)), or nationally authorized industrial timber plantations (HTI) or agricultural plantations who nevertheless violate legal provisions to over-harvest and access timber in conservation or protected areas.

² This chapter is an extract from the report WWF/World Bank Alliance 2005.

The second type is carried out under the auspices of an illegally obtained harvesting permits issued by a district government official. These harvesting permits are often located within already logged over secondary forest (i.e. within active or inactive HPH concessions). Harvesting operations are rarely regulated and do not follow selective harvesting prescriptions. In some cases, permits issued by district government officers allow clear cutting of forests.

The third type of illegal logging is timber theft. This type of illegal logging is usually carried out by local people, often organised by timber barons and middle men to selectively fell commercially valuable species in production, protection or conservation forests. These people do not possess a government sanctioned legal right to harvest trees. This type of illegal logging is usually carried out less intensively than the other two forms mentioned above (see also Hiller et al. 2002).

The export trade of illegal logs involve a complex web of actors. For instance, the smuggling of merbau from the Papua province involves businessmen in Jakarta offering illegal merbau logs, as well as other influential players who guarantee delivery of the illicit cargo. On the ground in Papua Malaysian companies and individuals oversee the actual logging. Companies in Singapore act as middlemen in the trade chartering cargo vessels and barges to transport the contraband timber, and linking sellers of merbau in Papua with buyers in India. Many of the financial transactions for the merbau logs flow through Singapore's banks, Brokers in Hong Kong act as a bridge to the Chinese mainland, securing log supplies in Papua and forging connections with buyers in the Shanghai area and Guangzhou province (EIA & Telapak 2005).

Drivers

Overcapacity of Indonesia's wood processing industry; Ministry of Forestry figures show that the total legal annual consumption of Indonesian native forest timber was approximately 17 million m³ in 2000. However, according to the NRM-MFP-Bappenas Forest Futures Scenarios Analysis (2004) Indonesia's wood processing industry had a combined installed capacity of approximately 74 million m³.

Strong international demand for illegal tropical timber; The international market is currently thought to be consuming approximately 57.5% of Indonesia's total wood production (legal and illegal). Most (approximately 75%) of Indonesia's exported timber products are consumed by Asian countries

Systemic corruption and rent seeking behaviour; In Indonesia, illegal logging activity is often protected and organised by corrupt elements in the civil service, security forces and legislature. Profits gleaned from illegal logging supplement the budgets of the military, police and governments; and the salaries of poorly paid public servants.

Rapid and disorganised decentralization; Rapid and disorganised decentralization has given rise to various new forms of illegal logging, which may be considered 'illegal' by the central government, but 'legal' according to some district governments.

Growing unrest with the status quo; Local people, especially the poor, have increasingly become engaged in illegal logging because they have long been denied access to land and forest resources. Non-governmental organizations (NGOs), and even the international

community, have been somewhat reluctant to deny local people the right to exploit forest resources because they realise that these people have long been subordinated and that illegal logging is providing poor people with revenue and jobs.

Ineffective law enforcement; There have been scattered cases where authorities have captured or sanctioned actors involved in illegal logging activities, however, few of these cases (approximately 5%) have resulted in effective prosecutions or acted as a deterrent to powerful law-breakers.

2.3 Africa

2.3.1 Cameroon

Context

Cameroon's forests are part of the Congo Basin's tropical forests, which covered more than 198 million hectares in 1995 and are the second largest contiguous rain forest in the world after those of the Amazon Basin. Cameroon has considerable forest resources, with an estimated forest cover of 22 million hectares of dense forest.

The forest sector is a major sector of the country's economy. In 1998, the logging sector accounted for 10% of the gross national product, 9% of tax revenues, and 28% of non-petroleum export revenues. Roughly 55 000 people are directly or indirectly employed in this industry.

Forests are state-owned; a large portion has been allocated for management by private companies through concession agreements. Community-based management is also found.

Extent

There are no reliable estimates for the volume of illegal logging. In 1988–89 it was estimated that the extent of illegal timber felling was 1 million m³, roughly half the legally felled timber; MINEF (1995) estimates the volume at 150 000 m³ (Essama-Nssah & Gockowski 2000).

In a field survey conducted in 2001 irregularities were detected in 19 out of 21 concession areas surveyed. Tax losses at the national level were estimated at 53-60 billion CFA (USD 95-105 million) and damage and loss of interest at 353-433 billion CFA (USD 630-710 million) (Auzel et al 2002).

An Independent Observers has carried out inspections of logging titles since 2001. Out of the 168 title inspections carried out between 2001-2004, 99 contained at least one infraction observed (Global Witness 2005b).

Type

Observed illegalities relate both to allocation of harvesting rights and non-compliance with harvesting regulations. Regarding allocation procedure, irregularities have been detected in adhering to the procedures of public auctions. Tenders have been accepted from companies which have been recently involved in reported and confirmed illegal activities. Boundaries of harvesting have been modified or entirely relocated after the title has been granted (Global Witness 2005b).

With respect to infractions of harvesting regulations, one of the most frequent types is timber extraction without any authorization in a state forest. Individuals, often with the complicity of representatives of the adjacent communities or the Community Forests fell trees of high market value. These are then rough-sawn into planks on site using chainsaws or portable framed circular saws (Global Witness 2005b).

Concession holders were observed to have logged out of boundaries and/or opening of roads outside of logging concessions without authorization, use false title documents and false marking of logs. There are also failures to mark title boundaries or felled trees (logs and stumps), extraction of excessive volumes and non-authorized species and felling trees below minimum exploitable diameter etc. (Global Witness 2005b).

There is considerable anecdotal evidence that Community Forests are being widely misused by influential individuals, businessmen and Members of Parliament, with the assistance and economic input of timber companies operating in the area. According to the Community Forestry Development Project at MINEF, which was funded by DFID and ended in 2003, all recorded cases of industrial logging activities in Community Forests have shown extraction in excess of the agreed management plans. This situation, in combination with members' corruption, the need for a communal income, and a lack of administrative supervision has given rise to many small scale illegal logging and removal activities involving both small scale forest operators and community forest management committees (Global Witness 2005b).

Drivers

Excessive wood processing capacity; The underutilised capacity of the approximately 90 sawmills in Cameroon creates a high demand for timber, a demand that cannot be supplied by the forestry concessions granted by MINEF (Global Witness 2005b).

Strong export demand; The EU is the principal destination accounting for approximately 90%, (1.8 million m³) of exports from Cameroon (ERM 2003).

Lack of recognition for customary rights; A significant proportion of illegal timber is felled from lands held under customary tenure rights. Legally this timber belongs to the state, but farmers will often sell standing timber to local chainsaw operators who fell the tree and saw it into planks *in situ*. Because farmers have no legal right to these trees, they readily accept only a fraction of the value of the timber at international prices (Essama-Nssah & Gockowski 2000).

Poorly managed forest administration; MINEF faces serious lack of means due to lack of appropriate auditing of funds, misappropriation of funds and lack of appropriate budgeting. Lack of personal accountability reduces staff efficiency and leads to corruption. Similarly, irregular and low payment of staff increases opportunities for corruption. Civil society is given minimal input in forest reform and lacks access to information. Transparency remains a sensitive issue (ERM 2003).

Underresourced law enforcement staff; In the East province alone, in 1998-99, one MINEF field agent was responsible for an average of almost 21,000 hectares of concession. Because of inadequate transportation, most MINEF agents are unable to reach logging concessions to be inspected by their own means. There are no serious cases of illegal logging documented by the forest officials in the absence of the Independent Observer (Bikié et al 2000, ERM 2003).

Weak judiciary; Ninety-six per cent of violations reported in 1992-93 were followed by incomplete judicial procedures. One fifth of all violation reports registered are not fully followed through in the judicial process because of the “intervention of an influential person.” (official wording). The fact that most violation reports are issued against individuals rather than against companies, even though companies own more than five times more logging rights than do individuals, may also indicate a bias in law enforcement (Global Forest Watch 2000).

2.3.2 Liberia³

Context

Liberia hosts the last two significant blocks of the remaining closed canopy tropical rainforest within what is known as the upper Guinea Forests of West Africa, which spans Ghana, Cote d’Ivoire, Liberia, Guinea and Sierra Leone. The original extent of tropical rainforest in the upper Guinea forest has shrunk to only 12.7% of its original size. Liberian forests, 92 797 km², account for nearly half of the remaining area. This region holds a rich biodiversity, with over 2 000 species of plants of which 240 are valuable timber species.

Control over natural resources, including timber, played a key role in Liberia’s 14-year long armed conflict as a source of revenue for the warring parties. The United Nations recognized this role by first sanctioning the export of Liberian diamonds in 2001, and later sanctioning the Liberian logging industry in May 2003. Soon after the timber sanctions came into force the warring parties began peace talks, signed the Comprehensive Peace Agreement in August 2003 and subsequently formed the National Transition Government of Liberia (NTGL).

All forests are state-owned but during the conflict many areas were controlled by insurgents.

³ This chapter is largely based on document Global Witness 2005c.

Extent

In a violent conflict, like the one in Liberia it is difficult to define illegality. Instead, Liberian timber production could be regarded as conflict timber⁴.

In 2000 Liberia's timber production of 934 000 m³ was worth a minimum USD 187 million at world market prices with exports worth just under USD 130 million. It is estimated that the net profit from timber production was USD 100 million (Global Witness 2001a).

The introduction of timber sanctions significantly reduced timber exports. Current logging activities are geared towards the domestic market and are mainly on a non-commercial scale. However, much of this is unregulated and illegal.

Type

During the conflict, the Liberian logging industry was mainly dominated by foreign interests. Timber trade was an important source funding both for the president Charles Taylor and other warring factions. Because of the opaque nature of these deals, little is known about the ways in which the funds were used. However, a substantial amount was apparently used on arms purchases or to pay the army. The president and the faction leaders may also have gained personal benefits from timber trade.

Apart from providing funding, logging companies may have supported the armed groups in other ways. For instance, logging company militias were allegedly playing a significant role in policing Liberia. In return, they were given considerable freedom to conduct their logging business; there are reports of unsustainable practices, and some companies have been accused of human rights abuses.

After the embargo took effect, log exports diminished sharply. Logging for domestic use is not in violation of the United Nation (UN) embargo, and there has later been a resurgence of logging for the domestic market. This has mainly been carried out by smaller groups, often composed of armed ex-combatants, rather than commercial-scale companies as operated historically. Logging is carried out on a non-commercial scale, typically in the form of "pitsawning".

However, current logging activities are not properly controlled by the Forestry Development Authority (FDA) which lacks the capacity to effectively manage enforcement of licensing, transport and timber sale regulations. For instance, the FDA is mandated to control all logging activity, but it has not been able to enforce its long-standing ban on un-licensed, pitsawn

⁴ There is no internationally accepted definition for "conflict timber". A British NGO Global Witness has provided two definitions

- 1) timber which has been traded in a way that drives violent armed conflict and threatens national or regional security (Global Witness 2001a)
- 2) timber that has been traded at some point in the chain of custody by armed groups, be they rebel factions or regular soldiers, or by a civilian administration involved in armed conflict or its representatives, either to perpetuate conflict or take advantage of conflict situations for personal gain (Global Witness 2005c)

It should be noted that conflict timber is not necessarily illegal, as the legality of timber is a product of national laws. However, in practice, conflict timber is usually illegal timber.

timber. Inconsistently, however, it has been issuing permits for the transport of timber to market. As a result, the Liberian logging industry continues to generate significant amounts of unregulated revenue.

Drivers

During the conflict

Imperative to finance military operations; In times of violent conflict, any means are used to finance the war machine. With few resources other than diamonds and timber, the warring factions did not hesitate to exploit them. It is apparent that this revenue was also used for personal enrichment by some individuals.

Breakdown of institutional control; In the areas controlled by armed groups, there were no institutional structures to speak of. In the area controlled by the president, the institutional framework had been rendered weak by the instable political environment. The Strategic Commodities Act, passed in 1999 effectively placed all of Liberia's natural resources under the sole control of the president. He had the sole power to execute, negotiate and conclude all commercial contracts or agreements with any foreign or domestic investors for the exploitation of any of these resources (Baker et al 2005).

Strong export demand for timber; During the conflict, domestic demand for timber was limited and concession holders sold their timber mainly to foreign markets. The two most important destinations for Liberian timber were France and China, which were estimated to account for more than two thirds of the total exports. The demand weakened substantially when the UN embargo took effect (Global Witness 2002b).

After the conflict

Weak institutional framework in the forest sector; The fundamental reforms of the FDA, the government agency tasked with managing Liberia's logging industry, have yet to be completed. The FDA is not fully deployed to the regions and lacks resources. There are also reports of FDA mismanaging funds.

Lack of alternative income sources; The ex-combatants frequently have few legal opportunities for income generation. The experience gained during the conflict provided them with basic skills needed in timber extraction and trade.

Weaknesses in overall governance; The National Transitional Government of Liberia (NTGL) is still operating with insufficient transparency, and its failure to manage its accounts has weakened confidence in its capacity to steer the country. The lack of proper customs and immigration agents at key border checkpoints, and the insufficient monitoring of border areas by UN peacekeeping troops, allows for continued cross-border trafficking of goods sanctioned by the UN embargo.

Timber demand from neighbouring countries; There are reports of timber crossing the border into Guinea and Côte d'Ivoire. There is also concern about the possibility of timber being trafficked via containers at Monrovia Freeport. The escalating violence in Côte d'Ivoire

may increase the illegal export of timber from Liberia, as timber traffickers exploit the Ivorian government and Forces Nouvelles' use of timber revenue to fund the war there.

2.4 Latin America

2.4.1 Brazil⁵

Context

Brazil contains some 3.7 million km² of tropical moist forest-almost 27% of the remaining global stock. Its tropical forest endowment and its importance to global biodiversity are unparalleled in the world. Brazil is also the world's largest consumer of tropical wood products and consumes about 86% of its own production.

Two-thirds of the total timber harvest in Brazil comes from plantation forests, where illegal logging is not considered to be a problem. The problem of illegal logging is only an issue with tropical timber production, which occurs primarily in the Amazon region.

Currently almost all of the legal log production in the Amazon is from privately owned lands. The Government of Brazil has been discussing the possibility of licensing timber concessions on public forest lands, but such a program is not yet in place. Continued resettlement of people in the Amazon region is slowly changing the ownership pattern as resettled people gain title to their land after using it a fixed period.

Extent

Of the total harvest of tropical wood in Brazil, various NGOs estimate place the volume of illegal wood at between 20% and 47% (Box 2.1). Much of the legal supply comes from (unsustainable) logging taking place on small ownerships, where settlers are permitted to clear 3 hectares per year for agriculture.

Box 2.1 Example of Available Estimates on the Extent of Illegal Logging in the Amazon

Estimated 22 million m³ - or 75% - of current Amazon timber production is covered with some legally issued document from the federal or state environmental authorities. Approximately two thirds of it - or 50% of the total production - is originated by clearcutting licences, aimed at converting forest into pasture or agricultural land. Approximately one third of it - or 25% of the total production - is originated by forest management plans also licensed by environmental authorities.

The remaining 25% of the total production is environmentally illegal, i.e. resulting from unlicensed practices (invasions of indigenous land or parks, clearcutting without any licensing).

Source: Smeraldi (2005)

Types

⁵ This chapter is based largely on document Seneca Creek... 2004.

Illegal logging is typically carried out as selective logging of most valuable trees in indigenous land or national parks. Most of the perpetrators are likely to be organized groups operating on a fairly large scale. For example, in a recent operation the Brazilian Federal Police arrested 89 people – including corrupt agents of the Brazilian environmental agency IBAMA, and loggers. The methods used by illegal loggers include establishment of “ghost logging companies”, falsification of documents and field inspection frauds (Greenpeace 2005). The companies caught in crackdowns have been mostly mid-sized (Seneca Creek... 2004).

Illegal logs become available from clearcuttings when natural forest is converted to other uses without licence. It is likely that both large-scale operators and small-scale farmer engage in illegal land conversion. Cattle pastures and cultivation and soy beans are the most common purposes for which forest is cleared. In some cases, the licence to convert may have been obtained fraudulently in contravention with regulations through corruption (Smeraldi 2005).

A significant portion of the illegal harvesting activity may occur because of frustration with the bureaucratic regulations on management plans, and the severe problem of lack of clear land tenure. Because of the latter problem, many landowners have no prospect to harvest timber legally, and any activity on their lands (without clear title) will be by definition illegal (Seneca Creek... 2004). Overall, it may be easier to obtain a deforestation licence rather than a forest management licence (ERM 2003).

Additionally, Smeraldi (2005) cites the following examples of types of illegal logging:

- Community management of forestry timber and non-timber products (almost always illegal due to the lack of appropriate formal insertion of this public and bureaucracy).
- Management practices and selection of the most advanced and modern trees, without adherence to the division of allotments, that are considered as illegal.
- Sustainable management in indigenous lands, regarded as illegal with the exception of a pilot ad hoc authorized pilot-project (Xicrin of Catete).

Some industry representatives have advanced the view that “transfer pricing and money laundering (covering discrepancies in volume and value declaration, under-pricing, manipulation of accounting systems to transfer money to parent companies, over-pricing of imported goods and services, and other associated practices) are the most serious illegality, taking into consideration their economic dimension and the indirect social and environment implications.” (Seneca Creek... 2004).

Drivers

Economic factors and policies favoring conversion of natural forest; Available studies suggest that illegal conversion of forest land (clear cutting) is driven more by the expected economic returns from cattle raising and agricultural production than by the prospect of proceeds from sale of logs (e.g. Margulis 2001).

Difficulty to comply with legal regulations; The legal framework controlling illegal logging is extensive to the extent that the system is bureaucratic. Unclear land tenure blocks many prospective landowners from harvesting timber legally, and the current system may provide an incentive for companies to cheat (SENECA CREEK... 2004).

Weaknesses in law enforcement; The authorities enforcement capacity still leaves room for improvement. The areas to be controlled are large and resources are scant. changing regulations make enforcement difficult. However, starting in late 1999, IBAMA began a more aggressive enforcement of wood harvesting and transport, and began issuing fines which were substantial. While only a small percentage of the fines have actually been collected, the process at a minimum raises costs for the companies involved.

Low cost of illegal timber; To some extent this is still true. However, while the total costs of lumber and plywood production for companies operating outside the law may be lower than for legal companies, much of the “savings” has to do with avoidance of taxes, both on profits and employees. The cost of the wood itself may or may not be significantly less expensive than that generated through legal channels. The timber becoming available from legal forest conversion is typically very cheaply priced.

2.4.2 Honduras

Context

With a total area of 112 492 km² and 98 629 km² apt for forestry, Honduras is the Central American country with the greatest potential for the production of wood and non-wood products from forests. Its natural forests cover 54 000 km², distributed in four forest macroecosystems: pine forest, broadleaf forest, cloud forest and mangrove forest. The coniferous forests cover almost 25 000 km² while the broadleaf forests cover about 29 000 km².

There are three types of property rights over forests: public, municipal and private. The national forests are largely occupied by people who have property rights but do not have legal title. The municipal forests are often neglected by the municipalities although there is relatively better control over spontaneous settlement than in the national forests. In private forests, most owners do not process the wood personally. Historically, the forest sector has contributed significantly to the country's GDP, for almost 10% in the period 1996-1998.

Forests are state -owned but there are a few social forestry initiatives where communities are entrusted with forest management.

Extent of illegal logging

It is estimated that 75-85% of the broadleaf timber extracted from the forests of Honduras on an annual basis is removed illegally. This amounts to between 125 000 and 145 000 cubic metres. When it comes to conifers, clandestine logging of between 350 000 and 600 000 cubic metres accounts for 30-50% of the total annual supply. The total market value of the illegal timber involved is estimated at USD 55-70 million (Del Gatto 2004).

Types of illegal logging

Illegalities relate to timber auctions and infractions of forest management guidelines.. Regarding auctions, there are allegations that they are often “fixed” by the large players who collude keep the prices at an arbitrarily low level (EIA 2005).

With respect to violations of forest management regulations, the following types of illegal activity can be distinguished:

Commercial operators circumventing regulations concerning harvesting; There are various methods of going about this such as cutting without management or operational plans, cutting outside legal boundaries, manipulation of stock assessments, fraudulent use of permits intended for non-commercial logging or salvage of damaged timber, etc. These acts are often facilitated by corruption (EIA 2005).

Community organizations failing to comply with regulations concerning harvesting and forest management; Community organizations may act independently or collaborate with commercial operators in carrying out illegal activities in their area. Key members of the community organizations may also take personal advantage of these deals to the detriment of their community (Del Gatto et al 2004, EIA 2005).

Individuals carrying out thefts; Typically, small teams of two or three chainsaw operators cut trees furtively, often at the edges of secondary roads. They saw the logs into blocks on site and then load them (usually at night) on trucks that carry them to sawmills and nearby workshops. This type of illegal loggers represent the lowest step in the illegal logging chain. It is often poor or even extremely poor people who have no other revenue options (CONADEH & Global Witness 2005).

The abuses committed are not always big in scale, but are often small irregularities which, however, when repeated over and over through time, end up constituting very significant phenomena, and have serious social, economic and environmental implications (CONADEH & Global Witness 2005).

An increasing number of criminal groups involved in drug and arms trafficking have infiltrated remote forest areas. Illegal timber extraction may serve to launder drug money. Also, drugs have reportedly been hidden inside timber shipments (EIA 2005).

In Honduras, there is a continuum from legal to illegal logging with a grey area between them. There are operations which are not, strictly speaking, illegal because those involved have the necessary papers and permits, pay taxes, and are part of the official statistical database held the forestry authorities. In practice, laws are flouted and regulations ignored — either deliberately and as a result of careful planning (so-called ‘timber laundering’) or, as often is the case, because of the sheer difficulty of complying with all the legal requirements, especially the high official and hidden costs of negotiating a way through the complex bureaucratic red tape (Del Gatto 2004).

Drivers

Unclear and insecure land tenure; *De facto* land tenure does not always coincide with the *de jure* situation. Often, land that is theoretically state-owned is in reality occupied by local peasants, communities, or landowners who claim rights to it. When a forest area or harvesting rights is apportioned, the occupants have a strong incentive to exploit the local forest resources as fast as possible (and illegally). On the other hand, logging companies or community organizations to whom the rights have been allocated have the same incentive since the lack of control over the resources and the threat of violence undermines any

guarantee of ongoing access as well as the security of any investment in forest management (Del Gatto 2004).

Strong demand for timber; The market value of timber is large compared to many other natural resources available in Honduras. Apart from domestic market there is strong export demand, especially in the United States and the Caribbean countries (EIA 2005).

Bureaucratic laws related to forest management; The legal requirements are so complex that even those disposed to comply with the law may find the costs of doing so unsustainable and/or unreasonable. Taken together, compliance with the regulations on timber production economically unviable and may encourage people to engage in illegal activities.

Ineffective law enforcement; The areas to be controlled by law enforcement staff are large and officials typically act alone with large discretionary powers which are not balance by accountability. Employees lack motivation and carrying out their duties in hindered by lack of travel funds and other means. There are frequent accusations of corruption within the national police and the judiciary. As a whole, the risk of detection and sanction is low (Del Gatto et al. 2004).

Poorly managed forest administration; Within COHDEFOR, political and economic interests have a large influence on the hiring and promotion of employees and forest policies. There are allegations of mismanagement and misappropriate of funds. Transparency is at a low level (Del Gatto 2004).

Weak governance in sectors related to forestry; There are patronage systems and corruption inside the various government bodies responsible for ensuring compliance with the regulatory framework governing forestry activities. Those implicated in range from officials in high levels of government to local authorities. There are institutional rivalries and distrust between government agencies involved in forest management control such as AFE-COHDEFOR, local municipal authorities, and the environment fiscal body (Fiscalía del Ambiente) (Del Gatto et al. 2004).

2.5 Central Asia and Eastern Europe

2.5.1 Armenia⁶

Context

The republic of Armenia is a country with low forest cover. The most recent estimates put the total forest cover at around 7% to 8% of the total area of the country or approximately at 245 000 hectares. Forests in Armenia are distinguished with their rich species structure. There are 260 tree and shrub species growing in Armenia including relict species. The reported contribution of the forestry sector to the national economy has shrunk to less than 0.5% of GDP. All forests are in state ownership

⁶ This chapter is an extract of document “Action Plan for Mitigating Actions to help Address the Problems Associated with Illegal Logging Annex to the Government of Republic of Armenia Protocol Decision N 38 from 30 September 2004” by Armenian Government

Extent of illegal logging

The overall timber production was estimated 847 000 solid m³ in 2003, of which officially allowed and registered volume constituted 63 000 m³. In other words, less than 10% of timber production was legal. Timber harvest, both legal and illegal, consists mainly of fuelwood; less than 30% is logs.

Types of illegal logging

Illegal logging is mainly in the form of unofficial removals from state owned forests by local communities for subsistence purposes (estimated through surveys the consumption by rural households to be 568 000 solid m³ per annum), unofficial removals by commercial operators of fuelwood for sale in urban centres (estimated at 150 000 solid m³, through transport and sawmill surveys) as well as with more limited illegal logging for commercial production of wood products.

The problem of illegal cutting of timber for commercial processing into finished timber products is not considered a high priority. The problem is likely to be driven by a lack of alternative income generating activities for entrepreneurs in rural areas and insufficient legal timber coming on to the market to meet local demand. However, it has the potential to rapidly become an issue due to the currently installed but under-utilised wood processing capacity.

Drivers

Poverty and lack of affordable fuel alternatives; Surveys indicate that the subsistence use of firewood is linked to poverty and lack of affordable alternatives, and illegal commercial production of firewood is driven by high demand for fuelwood and a lack of affordable fuel alternatives in some urban centres.

Ineffective law enforcement. Inspection systems are paper based, insufficiently resourced in terms of staff (poorly paid) and equipment and are not linked with the final products through the chain of custody which makes easy to find ways around the system.

2.5.2 Russia

Context

Russia's forests cover some 870 million hectares (about 23% of the global forest area). They account for 55% of the world's growing stock of coniferous species and play a major role in preservation of planetary biodiversity and stabilization of the global climate through carbon sequestration. Russia's forests contain unique biodiversity; 85% of the 605 million ha east of the Urals are covered with closed-stand forests, much still unaffected by industrial harvesting.

The current timber harvests remain far below estimated forest growth, and Russia only contributes an estimated 2-4% of the world's wood products. A surge in log exports in recent years, to both Asian and European markets, has increased the influence of Russian timber in international wood markets (Seneca Creek.... 2004).

Russia forest resources are almost all state-controlled. Most of the area is managed by state forest administration but the Government has also introduced long-term forest leases with a lease period of 49 years. Detailed information on the extent of leased forest area is unavailable but it is apparently substantial.

Extent

A number of organizations have derived estimates on illegal logging. Most of these sources believe that between 20-30% of the total Russian harvest is illegal because of improper or non-existent felling licenses or cutting in excess of permitted volumes. Some NGOs place the estimate of illegal logging at 50% in some parts of the country (Seneca Creek... 2004)

One of the most recent analyses was conducted in a study commissioned by American Forest & Paper Association (Seneca Creek... 2004) yielding an estimate that on average 15-20% of the (industrial) harvest in Russia may be "illegal". For North-West Russia, the most recent assessment made by the European Forest Institute provided a likely range of 10-15% of wood coming from unknown sources as a share of the total consumption, including export, in 2002. Most of this wood is probably illegal (EFI 2005).

Types

There is a multitude of actors involved in illegal logging. Some of them are medium-sized or large well-connected and well-organized enterprises but there is also a large number of smaller enterprises acting locally. Peasant farms, agricultural and small-scale municipal enterprises hire teams to carry out illegal logging. The role of individual poachers, however is diminishing, and they are estimated to account for an insignificant part of illegal harvesting (Forests Monitor 2005, Kotlobay & Ptichnikov 2002)

Sometimes illegal logging is an outright theft; often, however, it is facilitated by corruption in the forest administration, police, judiciary or customs. Authorities, especially militia, may extort money from illegal loggers. Sometimes this is done in exchange for "protection" against other law enforcement staff (Forests Monitor 2005).

Some of the most common forms of illegal logging include violating the regulations of authorized logging operations by logging in excess of the volume permitted for a given area, logging beyond the boundaries of the area authorized, logging species which are restricted from cutting etc. Other infractions include logging and harvesting without permits or with forged permits, legalizing confiscated timber and selling it further for personal benefit etc. Timber companies or intermediaries may also mix illegal logs with legal logs in a number ways along the production and marketing chain making it impossible to distinguish between the two (Forests Monitor 2005).

The way in which public administration in Russia functions is also reflected in the pattern of corruption. Various levels of administration operate rather independently; those at higher levels are unable to fully control ones below them. This is not necessarily because regulations are intended to encourage autonomy but because there is a lack of means to exercise control. In keeping with this pattern, corruption often occurs locally through officials who are able act rather independently. However, there may also be links to authorities at higher levels, especially at regional level (cf. Forests Monitor 2005).

Drivers

Strong export demand; Timber industries in European countries, especially Finland, depend to a large extent on Russian roundwood supply. Economic growth in China has made the country increasingly dependent on imports. Logging ban introduced in China in 1998 sharply increased demand from Chinese wood industries facing shortage of raw material supply (Box 2.2).

Ineffective control of timber imports in countries sourcing Russian timber; Allegedly, the portion of illegal timber is particular high in exports to China where controls on the origin of timber have so far been lax.

Inadequate legal framework. There are several inconsistencies and gaps in the current legislation and policy regarding forests and forestry making it difficult to judge whether a particular forestry operation is legal or illegal.

Ineffective law enforcement; Law enforcement lacks resources; effective monitoring is difficult due to the great number of players involved in timber harvest and export; corruption and bribery are prevalent. There a conflict of interest within state forest management.

Weakness of overall governance structures. Weakness of central and regional governments makes it difficult to organize coordinated control operations. The police and judiciary suffer from inertia and corruption.

Lack of alternative income sources; The salaries of government officials are low in absolute terms as well as compared to the value of the resource they are managing making the officials vulnerable to corruption. Unemployment is a serious problem in remote areas and illegal logging provides much needed jobs.

Box 2.2 Development of Chinese demand for Russian timber

The 1998 logging ban brought severe harvest restrictions to many parts of China, particularly the Northeast. From 1991 to 2001, timber harvest in Heilongjiang shrank by half to 4.2. million m³. The hundreds of Manchurian sawmills and processing facilities quickly found themselves in short supply of raw material, but now have found the similar species across the border eminently suitable. The provincial governments and Chinese forestry agencies have been instrumental in setting up the mushrooming timber processing mills that have appeared along the Chinese side of the Russia-China border. China encourages the import of logs by requiring full import duties and value-added tax (VAT) on lumber, but zero import duties and only a reduced VAT on roundwood. Finally, the Chinese government has adopted a new state program to modernize existing large pulp and paper factories throughout Northern China. All of these efforts are clearly designed to take advantage of inexpensive Russian wood.

Source: Forests Monitor 2005

2.5.3 Serbia⁷

Context

The area of forests and woodland of the Republic of Serbia is 2654 577 ha accounting for 26.7% of the land area. In 2001, the forest sector contributed about 3% to the GDP, of which the forestry accounted for 0.5% and the wood industry 2.5%. The ownership of forests falls into two main categories: state and socially owned and privately owned forest land. The State owns 56% of the forests and the remaining 44% is in private ownership. The average size of private woodlots is 0.3 ha.

Extent of illegal logging

In 2004, the volume of illegal logging in state forests was about 10 000 m³ which represents 0.4% of the legal harvesting volume. Stakeholder estimates put the proportion between 6-10% of the legal harvesting volume.

The officially registered quantity of harvesting in private forests is 800 000 m³. According to official statistics there is no illegal logging in private forests but it is obvious that both thefts from private forests and illegal logging by forest owners themselves occur. Experts estimate that illegal logging in private forests is at a high level; possibly as much as the official volume or even higher but this cannot be reliably confirmed with the available information.

Types of illegal logging

In the State forests, the officially recorded illegal activities are usually related to wood theft and illegal hunting. Thefts are carried out mainly by local people, individually or organized in smaller groups. The activities concentrate in the forests located near villages and towns or in smaller state-owned estates that are surrounded by private forests. Smaller and isolated estates are harder to protect. Stolen timber is mainly firewood, or technical wood of different quality

The results of a survey carried out among stakeholders emphasized the link between corruption and illegal logging. While logging without license emerged as the most common offence, two violations associated with corruption, undergrading and data manipulation in forest management planning, appear to be of equal importance. It was strongly suspected that in some cases organized teams within the forest administration would be involved in corrupt activities.

In private forests, the owners often circumvent regulations by harvesting more than officially marked amount. Felling areas can be thinned too intensively or they are clearcut. Another problem in private forests is wood thefts which are carried out mainly by the people living in nearby villages or by organized groups. Typically, thefts take place in forests whose owners have migrated to towns. Many owners may not even be aware of these thefts.

There are also cases where private contractors or legally registered traders buy harvesting rights from private owners but in reality harvest more than was agreed (often making clearcuts). Owners rarely check the logging site after they receive the payment.

⁷ This chapter is an extract from document Savcor Indufor 2005b

Drivers

Critical weaknesses in forest administration. A survey conducted among stakeholders suggests that the weakness of external audits and internal monitoring in public forest administration create opportunities for corruption.

Weak law enforcement in private forests. Small-sized woodlots scattered over a large area and often without owners living nearby pose a challenge for law enforcement. The cost of law enforcement is unavoidably high and larger expenses are difficult to justify given the limited value of individual woodlots.

Poverty and lack of affordable fuel alternatives. For a limited portion of rural population, lack of alternatives to fuelwood may drive them to illegal logging.

3. IDENTIFYING POTENTIAL MEASURES

3.1 Type of Responses

The potential responses can be grouped in three categories (i) *prevention*, (ii) *detection*, and (iii) *suppression*. Prevention comprises institutional and policy reforms that seek to reduce incentives and opportunities for illegal activities. It may also include measures aiming to reduce the gap between timber demand and supply. Because preventive measure target the fundamental problems underlying illegal logging, most of them can be expected to take effect only in the medium and long terms. Detection refers to various methods of collecting and processing information on illegal wood harvesting and transport with the objective of identifying illegal activities or facilitating the design of improved policies. Suppression measures include strengthening of legislation, enforcement and the judiciary.

The potential interventions have been discussed extensively and rather exhaustively in the literature. The presentation here attempts to summarize this discussion based on few select documents⁸. The range of identified responses is broad and it is likely that, when analyzing a specific context, only a limited selection of them will be relevant.

3.2 Prevention

3.2.1 Improved Governance

Weaknesses in forest governance can occur at three levels: (i) in the forest governance framework, including forest related laws and regulations and institutional structures in place for their implementation as well as civil society and community based governance structures (e.g. certification, traditional community-based structures), (ii) in the broader governance structures in the society, including law enforcement, the judiciary system, transparency of information, people's involvement in decision-making (i.e. all those elements labelled as "good governance"), and (iii) in the international forest related governance, including the implementation of forest related international conventions and other "soft law" – type

⁸ Most issues have been discussed in more than one of the reviewed documents; the reference provided indicates the report from which the main body of the text was extracted.

international agreements, trade and environment related international agreements (e.g. the WTO discussions), and conventions and agreements regarding freedom of information (Savcor Indufor 2005a).

Forest sector

Combat corruption in institutions involved in log production and trade. Improved institutional arrangements and transparency play a key role in reduction of corruption. The most damaging form of corruption is one where high-level officials are involved. The financial losses are significant and it also encourages petty corruption. The fight against high-level corruption should be prioritized because it catalyzes a positive chain reaction; eliminating high-level corruption will also reduce opportunities for petty corruption. Working in the opposite direction does not have the same catalytic effect (Savcor Indufor 2005a).

Develop robust and transparent procedures for timber sales. The systems used for the sales of timber from the forests belonging to the government should be fully transparent. The same applies to the concession and/or logging contracts given to private companies in these forests. Moving to a system of competitive bidding with clearly specified criteria which is publicly available, as well as making the contracts public and allowing interested parties to challenge the award of such contracts, can be a powerful tool to combat corrupt practices (Savcor Indufor 2005a).

Simplify administrative procedures; Excessive amount of bureaucracy is one way to encourage illegal activities. For instance, the administrative procedures used in granting licenses for logging have to match the economic value of the products. Similarly, the requirements of forest management plans have to commensurate with the forest owners' capacity to prepare and implement them (Savcor Indufor 2005a).

Improve the financial standing of ministries responsible for law enforcement. Due to the poor financial condition of most of the ministries responsible for the forest sector, there is little systematic monitoring of logging and the poorly paid field staff are prone to corruption out of necessity. In this sense, any actions improving the financial status of these institutions (e.g. establishment of revenue retention schemes) can contribute to improved forest governance (Savcor Indufor 2005a).

Encourage involvement of civil society in forest dialogue. Participation of civil society in design and implementation of strategies to combat illegal logging contributes to informed dialogue and balances the views from the government and the private sector. Civil society's role can be enhanced by promoting civil society networks and lobby-groups. Enhanced access to forest-related information is a precondition for the involvement of civil society both as a partner and as an independent watchdog in the forest sector (Savcor Indufor 2005a).

Establish multi-stakeholder forums for dialogue. Broad-based dialogue on key issues of forest policy and policy implementation, such as illegal logging, could provide a major tool to improve the governance of the sector and open it up to a wider set of views and values. The national forest programmes can offer such forums, and provide a focus for their discussions. In the absence of such comprehensive planning processes, also thematic and more ad hoc type forums, Inter-Ministerial Task Forces, Parliamentary Committees could be set up (Savcor Indufor 2005a).

Promote forest certification. Independent certification can be a powerful tool for improved forest governance and control of illegal logging in those countries that are, or could be, exporting wood products to the European, the US and other markets that are sensitive to environmental and social issues.

Support the development and adoption of codes of corporate conduct; While codes of conduct may have been criticized as ineffective but in certain cases they may make a difference, particularly when companies are firmly committed to adopting responsible practices and abiding by the law of the country in which they operate. Codes of conduct tend to be more effective if they are linked to objective and transparent criteria and indicators for monitoring and assessing compliance (Contreras-Hermosilla & Global Witness 2003).

Encourage incentive contracts with companies of the private sector and promote the use of performance bonds. Provisions in contracts that reward companies performing above established norms in, for instance, the implementation of timber concession contracts, help in ensuring law compliance. These measures can be simultaneously tied to increased penalties and policies for non-compliance, such as those requiring ‘performance bonds’ that explicitly link monetary penalties to the satisfaction of contract conditions (Contreras-Hermosilla & Global Witness 2003).

Form stakeholder coalitions. Strategies that rely on the conviction of major stakeholders that law compliance is in their best interest have more chances of success. It is improbable that the government institutions in isolation can organize effective action. Reforms for better law compliance can be introduced and better sustained by encouraging the public forest administration, groups of the civil society and the private business community to form coalitions working together for a common objective (Contreras-Hermosilla & Global Witness 2003).

National

Provide secure land tenure : Resolving key issues related to forestland tenure is necessary to create responsible managers for the forest resources with a long-term interest in the sustainability of the resource base, and a capacity to effectively control and manage these resources. Privatisation and community ownership of forests can be one solution, possibly also involvement of responsible private sector with long-term contracts (leases) for forest management and utilization. When establishing community ownership, securing access to legal protection and support from advocacy groups are often needed as complementary measures (Savcor Indufor 2005a).

Enhance rural incomes and/or reducing population pressure. Where subsistence timber products are in short supply (e.g. in Central Asia), increasing rural incomes, and/or urban development resulting in migration from the rural areas to urban centers for better paying jobs, are critical factors in reducing the demand for fuelwood and other forest products used for subsistence consumption. Even in areas, where subsistence needs are met but people still seek to enhance their meagre livelihoods through illegal logging, supporting broader rural development programs may be an effective long-term solution for illegal logging (Savcor Indufor 2005a).

Improve overall governance in the society. Moving towards improved governance in the society as a whole is a precondition for good governance also in the forest sector. Most countries have on-going programmes to address governance related issues in the society, however, these efforts often seem to have limited impact on sectors that are considered peripheral which forestry often is. Measures to develop forest sector governance should be closely linked to these boarder reform processes, and also make full use of the conditions created by such reforms. The forest sector may not be able to initiate necessary reforms, if the top management is among beneficiaries of corrupt practices (Savcor Indufor 2005a).

International

Integrate national forest sectors with international governance frameworks. International conventions and agreements give leverage and something to refer to in presenting demands to government. The most important are not necessarily those directly related to the forest sector, for example the Aarhus convention is a key international agreement referred to when demanding transparency and freedom of information (Savcor Indufor 2005a).

Enhance international co-operation. Regional processes such as FLEG can increase awareness and help develop common approaches to forest governance issues. Also, networking with international organizations and NGOs can contribute to this goal (Savcor Indufor 2005a).

Establish partnerships with external actors in the private sector. Local-foreign partnerships (e.g. for forest concessions) may offer a way of strengthening the capacity for control and sustainable management in the forest areas, especially if supported by such instruments as forest certification.

3.2.2 Improving the Demand – Supply Balance of Essential Forest Products

Subsistence Use

Availability of subsistence wood product is an issue in selected countries and regions (e.g. Central Asia and Eastern Europe). Limited forest area and management regimes emphasizing protection combined with slow tree growth and high consumption (need for thermal energy in low temperatures) create often a serious imbalance between supply and demand. In regions with more abundant supply of forest products, harvesting of timber for subsistence consumption is usually legally sanctioned.

The potential measures to increase supply and reduce demand include:

Relax regulations for supply of timber used for subsistence consumption. In some countries, the chronic imbalance in the (legal) supply and demand of fuelwood, and lack of affordable alternative sources of energy, is forcing the rural poor into “illegality” out of lack of alternatives. In the short term i.e. in the absence of major development of the rural areas or possibilities for urban migration, the temporary increase of legal extraction of fuelwood – even beyond the levels estimated as sustainable – should be considered. This may be a better option than the current massive illegal fuelwood extraction. With the improvement of the economic conditions in the rural areas, and economic development in general, the demand for

fuelwood is likely to decline in a relatively short time to levels that are sustainable (Savcor Indufor 2005a).

Enhance fuelwood supply. In the longer term the options to increase fuelwood supply include (i) ensuring the natural regeneration of forest and bush lands, and (ii) intensification of farm and community level plantations. However, successful actions in these areas are linked to land tenure arrangements and their security. Furthermore, it is not clear whether plantations would increase fuelwood supply. As examples in some countries show, communities may opt for more valuable species and products that yield higher returns (Savcor Indufor 2005a).

Enhance the supply of alternative energy sources. Actions outside the forest sector can also contribute directly to improving the demand-supply balance of fuelwood. These include providing improved gas supply in rural areas, provision of solar and wind energy, and rural electrification (Savcor Indufor 2005a).

Revise energy policies to favour non-wood sources. Revision of the policies regarding subsidised prices for energy can have a major impact on illegal fuelwood consumption. The issue needs consideration together with other environmental impacts when adjustment policies are designed and put in place by Ministries of Finance together with the international financing institutions. Establishing linkages between forest and energy policies is crucial to achieve a balanced and realistic approach to future supply of rural energy (Savcor Indufor 2005a).

Commercial Use

Balancing the supply and demand of forest products is a prerequisite for elimination of illegal supply. If legal supply is unable to meet the demand for timber, there is a substantial risk that the shortfall is acquired illegally. The problem is typically one that transcends national borders; elimination of illegal logging in one country may simply “export” the problem to another one. If demand for timber supply does not decline (which is unlikely in the short and medium terms), a reduction in illegal supply has to be paralleled with an increase in the legal supply.

The shift of demand to export markets in China following the introduction of the logging ban in 1998 is a case in point. Chinese timber imports have skyrocketed and, allegedly, illegal imports represent a significant portion of them. Illegal logging is a significant problem in Myanmar and China, and wood processing enterprises springing up on the Chinese side of China-Russia and China-Myanmar borders suggest that lack of timber supply in China is to some extent compensated with illegal imports.

Approaches that may reduce demand and expand supply include:

Eliminate excess capacity of wood processing industries. In many countries, wood consumption by wood industries is well above the legal capacity of the forests. Downsizing the industry is a painful process involving job and revenue losses but a planned approach has significant economic and political benefits over the option where downsizing is inevitable in the face of dwindling resources. A more organised restructuring process can soften the impact and reduce the socio-economic consequences (WWF World Bank Alliance 2005).

Reduce international demand for illegal timber and wood products. Significant quantities of illegal timber and wood products enter international trade. Governments in major timber importing countries (EU Member countries, the US, Japan, China etc.) have a range of options to discourage importing this timber. Public procurement policies could require proof of legality or, more effectively, illegal imports could be banned. However, careful design of such schemes is necessary to ensure that restrictions are effective and the cost of implementing them is justified.

Provide incentives for supplying legal timber; Awareness raising among consumers and large traders could help overcome the higher cost of legal timber. Price premiums for legal timber would be desirable but their feasibility depends ultimately on consumer demand.

Expand timber supply from plantations. Elimination of illegal supply is only a partial solution because national and international markets continue to demand timber. To ease the pressure on natural forests, an expansion of plantation production should be considered. At the same time, care must be taken to ensure that production is sustainable and indigenous people's rights are respected.

Lower import duties. Lowering or elimination of import duties may also play a role in increasing supply of wood and reducing the demand for illegal domestic logs. However, this strategy may also result in moving illegality from one country to other (Savcor Indufor 2005a).

3.3 Detection

Detection of illegal logging activities is a key element of any strategy that attempts to curb illegal logging. Without accurate information about illegal logging activities, prevention strategies cannot be identified, and suppression activities are rendered useless because insufficient information will not lead to effective prosecution of law breakers. Information gleaned from detection measures can also be used to make effective campaigns against illegal logging activities; and to design appropriate policies and strategies to prevent or suppress illegal logging. In some instances, detection may also merge with investigation. Information will then be collected as evidence and used as the basis for arrests, judicial proceedings, fines or other actions (WWF World Bank Alliance 2005).

The following interventions could be considered:

Develop cost effective methods to detect crimes related to harvesting, transport, processing and trade. Improved detection of harvesting crimes is often one of the priority activities in the short term. Rapid development of, and ease of access to, high quality satellite imagery and inexpensive and accurate Global Positioning System navigation devices greatly increases possibilities for detecting harvesting crimes. Violations related to transportation, processing and trade may be detected through a variety of means including: physically tracking logs, supply and demand analysis and field investigations (WWF World Bank Alliance 2005).

Establish independent monitoring function for harvesting, transport, processing and trade. The options include (i) strong and independent government institution with capacity to

conduct intensive field audits, and (ii) civil society organizations. The former is effective if high-level corruption is not pervasive, the latter may be the only feasible approach in the most difficult situations. International organizations, both from the private and non-governmental sectors have successfully conducted independent monitoring in several countries (e.g. Cambodia, Cameroon, Ecuador) (Savcor Indufor 2005a).

Subject forest administrations/state forest enterprises to scrutiny by independent financial auditors. Routine monitoring of financial accounts is seldom able to reveal major and systematic frauds within public administrations. Forest administrations and state forest enterprises should be subjected to regular scrutiny by independent financial auditors with expertise enabling detailed and intensive financial reviews.

Oblige forest managers to provide financial and other data in an easily verifiable form. In decentralized forest administrations loosely controlled regional and local units may act independently creating a structurally flawed and unnecessarily complex information and financial system (including e.g. hundreds of bank accounts) whose auditing is next to impossible. If decentralization of forest administration is not a political choice but rather an unwanted result of poor control capacity, reinstating strong central coordination should be attempted. As a parallel measure, internal control procedures should be upgraded.

Improve statistical systems that detect inconsistencies in input-output relationships and trade of forest products Criminal acts not detected in the forest can be picked up during industrial processing and trade. For example, comparison of declared export quantities and values with those produced by importing countries can reveal inconsistencies (Contreras-Hermosilla & Global Witness 2003).

3.4 Suppression

Suppression is an important component of any strategy that attempts to curb illegal logging because it can deter and dissuade people from engaging in illegal logging activities. Strengthening law enforcement may also improve overall governance and the rule of law, strengthen forest and natural resource policy frameworks, improve forest resource management, and promote sustainable forest management (WWF-World Bank Alliance 2005).

To a large extent, suppression takes place outside the forest sector and the efforts to improve interventions do not necessarily have any particular focus on forestry sector. Often, the key problem with enhancing the effectiveness of suppression is to make the development strategies target forest sector. Without an explicit link the immediate impact of development efforts on a single, peripheral sector may be limited.

The following approaches may be relevant:

Identify and bottlenecks in the law enforcement chain; The enforcement system is only as strong as its weakest link. Each link in the chain from detection of illegal activities to prosecution, conviction and enforcement of penalties must be effective for the whole chain to be effective; one weak link may offset the impact of all other links.

Prosecute key forest crime offenders . It is not practical or desirable to suppress every person engaged in illegal logging, especially if they are poor forest dependent people. This will only overload the court system with minor crimes. Rather, suppression efforts should focus on the key offenders engaged in illegal logging (WWF-World Bank Alliance 2005).

Amend legislation to strengthen law enforcement efforts against major forest crimes. Forest related legislations are often vague, contradictory or suffer from important gaps. Penalties are often low compared to the benefit from illegal activities. On the other hand, legal framework may be so extensive that law enforcement does not have resources to monitor compliance. Simplicity and efficiency of regulations often go hand in hand (Contreras-Hermosilla & Global Witness 2003).

Ensure that legislation is enforceable. This is especially important where fuelwood cutting and other subsistence use of forests are critical for people's survival. Legal prohibition of the fulfillment of basic human needs is clearly a regulation that cannot be enforced (Savcor Indufor 2005a).

Adjust penalty codes to be effective. In many cases, laws include unrealistic penalties for those that act illegally. Ideally, penalties should be commensurate with the gravity of offenses committed and high enough to provide an effective deterrent. Further financial penalties need periodic revision to keep pace with inflation (Blaser et al 2005).

Use all available legal mechanisms to prosecute major harvesting and processing crimes. Legal action is often taken within the confines of forest and environmental laws. In some cases, other types of legislation e.g. those concerning money laundering and disclosure of assets and income sources, may be applicable and useful.

Enhance staff motivation and accountability. Often the resources allocated for law enforcement are limited compared to the value of the resource and the damage caused. Poorly paid field staff are prone to corruption out of necessity. Institutional incentives for improved detection (e.g. bonuses) could be considered to enhance staff motivation. Compliance with regulations and codes of conduct need to be built into the performance criteria of the forest control and enforcement staff (Savcor Indufor 2005a).

Enhance the independence of law enforcement function. Double role of forest authorities both in the production and monitoring of forest activities is a major weakness of institutional structures in many countries. A clear separation of these functions, preferably into different Ministries, is a precondition for any effective system for monitoring and preventing illegal logging (Savcor Indufor 2005a).

Build the capacity of judges and prosecutors to carry out law enforcement. Judges may apply sanctions from the general Criminal Law instead of more applicable forest and environmental laws when presiding over illegal logging cases. Environmental law, in particular, is a relatively new subject and judges may be unfamiliar with it (WWF-World Bank Alliance 2005).

Speed up court procedures. Apart from problems with corruption and inadequate penalty codes, courts are often overburdened. The courts may, however, set priorities in handling the cases, and sometimes it may be possible and justified to prioritize forest-related crimes. In the

Federation of Bosnia-Herzegovina, a separate administrative body has been set up to handle minor offences to reduce the burden on the court system (Savcor Indufor 2005a).

Increase capacity of forest crime investigators to put together comprehensive cases for prosecution; Illegal logging cases brought to court are often dismissed because evidence has been lacking; or because the case has been poorly put together. Forest police and other law enforcers need to be educated about judicial procedures and the types of proof required to obtain convictions (WWF-World Bank Alliance 2005).

Raise awareness about the importance and significance of forests among judges and law enforcers; Law enforcers and the general public may lack understanding about the importance and significance of forests, and consequently, forest crime is not considered to be a major offence. Efforts should be made to raise the awareness of judges, law enforcers, government officials and the public at large about the importance and significance of forests (WWF/World Bank Alliance 2005).

Establish a forest crime tracking and monitoring system: Often, there are no standardised reporting procedures in place regarding the judicial process. A centralized information system including data and information about illegal logging cases under inquiry; ongoing investigations; findings by investigators; process at the police headquarters, the public prosecutors office, and the court (WWF/World Bank Alliance 2005).

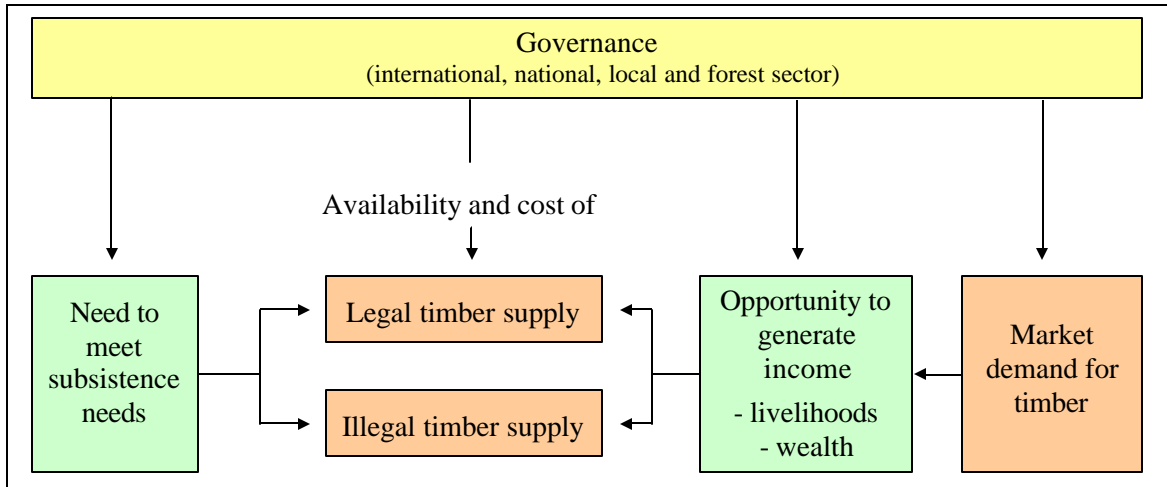
Establish public monitoring of the judicial process. Public monitoring of enforcement operations and judicial processes has the possibility to deter judges and other law enforcers from engaging in corrupt activities and should consequently be encouraged. In Indonesia, two public monitoring organisations have already been established in order to monitor judicial proceedings (WWF/World Bank Alliance 2005).

4. STRUCTURE OF THE TYPOLOGY

The construction of the typology was based on an analysis of drivers. They were analyzed based on the framework presented in Figure 4.1. The basic drivers behind illegal logging are assumed to be the demand for timber and the difference in the availability and cost of legal and illegal timber. Another key driver is the opportunities to generate income created by supply and demand for timber. Illegal logging emerges when weak governance makes the cost of legal timber higher than that of illegal timber (taking into consideration the penalty risk, informal payments, etc.) or when legal supply is inadequate to meet the demand. Depending on the situation, people use these opportunities to modestly enhance their (modest) livelihoods or to generate wealth. Illegal logging for subsistence consumption occurs simply when legal supply is insufficient to meet people's basic needs.

Each of these factors can be influenced through governance to reduce illegal logging. For example, the basic instrument to regulate supply (apart from physical and natural factors) is the policy and legal framework in the forest and related sectors. Commercial demand can be guided through trade and industrial policies. The need to generate income through illegal logging may be influenced by offering alternative income sources. Subsistence demand can be reduced by providing substitute products (alternatives to fuelwood) and by wealth generation. Put inversely, weakness of governance can be considered a major driver for illegal logging.

Figure 4.1 Framework for Analyzing Drivers Behind Illegal Logging



Of the drivers identified above, those involving personal motives were chosen as the one around which the typology is constructed. The motives can be grouped three categories (i) need to secure basic subsistence, (ii) wish to improve livelihoods, and (iii) wish to generate personal wealth through large-scale commercial illegal activities (cf. Inoguchi et al. 2005). The impact of the other principal drivers i.e. imbalance between demand and supply of timber and weaknesses in governance was examined in these three contexts.

The reason for selecting personal motives as the basic element of the typology was, first of all, that motives are inherent in every act – without them there would be no illegal logging. Also, each of the proposed motives can – in broad terms – be associated with a certain magnitude of negative impacts and a degree to which they can be “tolerated”. Large-scale illegal logging with the objective of generating personal wealth is undoubtedly much more harmful and far less acceptable than illegal logging that is carried out to satisfy basic needs.

When presenting the typology, only the most salient features of each context are discussed in order to keep a sharp focus and to avoid repetition. A broader discussion on drivers and potential responses was presented in Chapters 2 and 3 which can be referred to, if more detailed guidance is needed.

5. TYPICAL CONTEXTS FOR ILLEGAL LOGGING

5.1 Illegal Logging for Securing Subsistence

Typical context: Illegal logging related to securing basic subsistence involves poor individuals without adequate supply of timber from legal sources to meet their basic needs. Mostly, the needs relate to supply of fuelwood but some construction timber for shelters may also be needed. Law enforcement does not have the capacity, and often not even the will, to prevent this type of illegal logging.

Regions: Central Asia, some countries in the Balkans.

Recommended response: When subsistence needs is at risk, the emphasis of any response measures needs to be on prevention. Detection and suppression have little relevance in a situation where basic needs cannot be met. Often, the fundamental conflict is between environmental protection and satisfaction of social needs; in many cases it is difficult to achieve both.

The starting point is to adopt an approach that is able to effectively close the gap between supply and demand. The option available for immediate action is to legalize current illegal fuelwood cutting, and by amending the legislation to increase legal supply to a level that enables satisfaction of basic needs. In some countries, this may have to be done at the cost of temporarily sacrificing environmental sustainability. However, controlled excess is usually better than uncontrolled.

Detection of illegal logging for subsistence needs is difficult and costly since extracted volumes are typically small and the number of perpetrators is large. Usefulness of detection is also doubtful, as further action is not necessarily taken. If illegal logging is perceived to be a result of extreme need, it is often condoned by law enforcement staff; courts may show leniency towards the perpetrators

In the long term, the demand for timber can be decreased by providing alternative sources of energy at no or low cost for the rural poor. Ultimately, the problem can be solved only if rural poverty is reduced. The forest sector can contribute to these efforts by designing appropriate policies but usually one sector's efforts are not enough; the activities need to be part of all broader policies, strategies and plans for rural development and energy provision.

5.2 Small-scale Illegal Logging to Enhance Livelihoods

5.2.1 Local People Harvesting Illegally in Public Forests

Typical context: Local people illegally harvest timber in publicly owned forests. In some cases they may claim customary rights to the area in which the timber was harvested. Both fuelwood and logs are harvested sold at local markets or to middlemen to enhance livelihoods. Law enforcement staff has limited resources and is unable to control illegalities. Illicit activities may be facilitated by petty corruption among public officials. In some cases, illegal logging is instigated and coordinated by large-scale commercial operators.

Regions: All.

Recommended response: The strategy to combat this type of illegal activities should be based on a clear vision of long-term strategy regarding ownership. The option to transfer tenure and management rights to local people, especially where they have customary rights, should be carefully assessed. Local people often have continuous presence in the forest, and in appropriate circumstances, they may have the interest to protect the forest against illegal logging and manage it for the long term.

However, circumstances vary and local tenure may not always be a realistic option. Establishing an adequate institutional environment to support this arrangement may be unfeasible or there is a risk that the opportunity to obtain short-term gains proves too

attractive for the communities (see Ch. 5.2.2 below). In this case, maintain public ownership forests and setting emphasis on developing alternative livelihoods for local people may be the most appropriate long-term strategy.

Where forests stay in public ownership, effective prevention of illegal logging requires that forest managers are interested and capable of protecting their forest. If public forest administration is charged with management, resources available to protection of forest against external threat have to be adequate. In addition, the forest administration's institutional structure has to be such that it discourages corruption and provides staff with incentives for protection (see Ch. 5.3.1 below). In forests managed by concessionaires or other private entities, the responsibility for protection has to be clearly included in the concession agreement with appropriate sanctions in case violations occur.

It is stressed that when addressing small-scale illegal logging, it is necessary to ascertain that the target is appropriate. Frequently, local people involved in illegal logging have been engaged by large-scale commercial operators who provide incentives, resources and marketing outlets for individuals agreeing to work for them. Focusing on people engaged in small-scale illegal logging is an ineffective approach, if the people orchestrating the operations cannot be brought to justice. Where this is the case, the emphasis should be set on the approach presented in Ch. 5.3.1.

5.2.2 Community Forests

Typical context: Community forests are subject to theft by outsiders or community itself does not follow forest management regulations. In case of theft, community has the capacity to detect infractions but law enforcement is too weak to suppress illegal activities. Communities are unable to defend their rights through legal means owing to unclear land tenure or lack of resources and skill for pursuing a legal process. Where infractions come from within the community, legal logging may be burdened by excessive bureaucracy. Illegal activities are committed by individuals or they are organized by community leadership. Community leaders may co-operate with commercial illegal loggers to market the extracted timber. Community leaders may also divert part of community benefits to their personal use.

Regions: Asia, Africa, Latin America.

Recommended response: In case of theft, clarifying tenure arrangements and strengthening of law enforcement are the primary measures. Secure tenure is a basic requirement, because perpetrators may take advantage of unclear arrangements to challenge communities' rights to their resource.

Improving law enforcement may involve providing additional resources to law enforcement staff. However, often the key measure is to ensure that communities have access to legal services and are able to defend their rights through legal processes. Legal costs are usually prohibitive for the communities and they also lack necessary skills. Where law enforcement staff and the judiciary are tainted with corruption, backing from local advocacy groups able to raise general awareness of irregularities is often vital for the communities.

Where communities extract logs illegally, the reason may be excessively cumbersome administrative procedures (e.g. for preparing and implementing forest management plans) or tax payments or other fees which are seen unreasonably high. In this case, the option to curb the bureaucracy or to reduce the tax burden down to a level where communities see no significant benefit from illegal activities should be considered. If illegal activities are instigated by commercial, large-scale operators, targeting these operators could be more effective than focusing on communities or individuals therein.

However, it is obvious that communities may engage in illegal activities even if there are no compelling reasons to do so. In this case, law enforcement should be strengthened and effective sanctions should be applied. Mismanagement of funds within the community should be addressed by developing and imposing transparent management of community accounts.

5.2.3 Privately-owned Forests

Typical context: Small privately owned woodlots are being pillaged by theft committed by outsiders, or woodlot owners themselves fail to comply with forest management regulations. The extracted amounts are small. Procedures required for legal logging may be cumbersome. Woodlots are too small and scattered to be effectively guarded by law enforcement staff. Forest owners themselves live far from the lot, and have limited interest in its management.

Regions: Central and Eastern Europe.

Recommended response: Regulatory framework should be simplified to a level where forest owner find the obligations reasonable and law enforcement has the capacity to ensure satisfactory compliance. In private woodlots illegality often results from forest owners' failure to follow the administrative procedures related to logging or make appropriate tax payments. Where negative impacts are significant, a potential option is to reduce the bureaucracy associated with harvesting or bring taxes down to a level where forest owners would no more consider illegal activities an attractive option.

To better contain the threat from theft, forest owners could be encouraged and supported to participate in surveillance activities. In some Eastern European countries, private forest owners have shown interest in forming patrols to detect illegal activities and bring them to the attention of law enforcement staff. More systematic control procedures by the regular law forest enforcement agencies could also improve the situation.

5.3 Large -scale Commercial Illegal Logging

5.3.1 Illegal Logging in Forest Land

Typical context: High-level officials in forest administration, state forest enterprises or in related sectors (e.g. police, judiciary, country or regional governments) abuse their authority to enable large-scale commercial illegal logging. Where the structure of public administration is centralized, key individuals involved in corrupt activities may concentrate in one or few "nodes" at the central level; in decentralized or poorly controlled structures, the players at regional and local levels often act independently creating a fuzzy web which is particularly difficult to control. Large-scale illegal logging is frequently fuelled by overcapacity in

domestic forest industries or by strong export demand. Monitoring and enforcement systems are weak, focused on theft and unable to eliminate corruption.

Regions: All.

Recommended response: In countries with the most difficult overall governance situation the most effective responses are likely to focus on tackling high-level corruption that allows the perpetrators to circumvent control actions undertaken at lower levels. The tools include increasing the transparency of what is taking place in the forest sector through the provision of independent information, strengthening civil-society participation and promoting elements of good governance in general. The independence of monitoring should be secured by eliminating conflicts of interest within public administration. In dire situations, engagement of international entities providing monitoring services (e.g. private enterprises or NGOs) should be considered.

It is stressed that most of the other potential measures will be fully effective only if corruption, especially at the high level, has been brought under control; otherwise there is a risk that resources are used ineffectively and serve only for window-dressing. If powerful interest groups are involved, any measures taken purely at the technical level can easily be circumvented. In particular, one should be careful not to divert attention from the battle against high-level corruption by focusing on petty corruption.

Whoever is responsible for law enforcement needs to have sufficient equipment and other resources. However, regulation alone is seldom an adequate response; those subject to control activities must be obliged to provide information that can be verified with reasonable resources. If financial and information systems are complex and opaque, the effort needed to verify legality in a reliable manner may exceed the available resources. Centralized administrative structures generally facilitate control of financial flows.

Forest sector is usually unable to solve the problem of illegal logging involving high-level corruption on its own; instead, it must benefit from co-operation from related government sectors (e.g. police, courts, state auditors) as well as from the highest levels of government and public administration. Opportunities to expedite the handling of forest-related crimes in relevant institutions should be actively sought.

Where the capacity of wood processing industries exceeds legal supply, reduction of processing capacity should be aimed for. However, downsizing the industrial capacity gradual and coupled with measures mitigating the negative effects on employment and income. Such a process is painful and needs high-level political backing. The opportunity to provide alternative timber supplies from sustainably managed plantations should be explored.

If illegal logging is induced by strong export demand, the most effective approaches are those where both exporting and importing countries collaborate in eliminating illegal trade. Potential elements of control systems include bilateral or multilateral trade agreements and regulations, tracking systems ascertaining legality of traded products etc. However, these systems should be designed with care to avoid creating an excessive cost burden for legal timber and wood products which would further reduce their competitiveness compared to illegal goods.

5.3.2 Illegal Conversion of Forest Land

Typical context: Forest land is converted illegally for large-scale commercial agricultural use (e.g. for cattle pasture or oil palm plantations)⁹ and the removed logs are provided to domestic wood processing enterprises or sold to export markets. Detection of illegal conversion is ineffective and sanctions are not enforced. Illegal conversion and logging are facilitated by corruption among officials regulating conversion and controlling log trade.

Regions: Brazil, tropical countries in Asia.

Recommended approach: The main driver for illegal conversion of forest land is not necessarily the opportunity to harvest and sell logs but the potential economic benefits from activities established on cleared land. Thus, the measures to reduce the supply of illegal logs from converted areas must include a wide range of measures, many of which require cooperation far beyond the forest sector. Often the key is align the objectives and implementation of agricultural and forest policies, rein in corruption in all involved sectors and coordinate law enforcement operations.

The measures that can be undertaken by the forest sector include gathering and supplying of information on the progress of illegal conversion to relevant authorities (e.g. through satellite monitoring). Improved control of log harvesting and transport as well as reduction of demand for illegal logs on domestic and international markets are generally measures that are widely applied (see Ch. 5.3.1 above).

However, all these measures would deter illegal loggers, but impact on forest conversion may be less direct. If the economic benefits from using cleared land are sufficiently high, conversion may continue even if the benefits from selling illegal logs were eliminated.

5.3.3 Conflict Timber

Typical context: Party or parties to an armed conflict harvest and sell timber with the aim of financing the war effort. Part of the proceeds may be diverted for the personal benefit of key individuals. The international community has agreed to treat timber sold by warring factions as “conflict timber” and has imposed trade restrictions on it. Parties to the conflict continue to sell timber to export markets but the origin of timber or wood products is concealed to avoid trade restrictions. Restrictions may also be circumvented by passing conflict timber through third countries which are falsely declared as their country of origin. Corruption of customs officials facilitates trade.

Regions: Selected countries in all regions.

Recommended response: Most of what applies to curbing international trade of illegal logging is relevant to conflict timber. In countries domestic consumption of timber tends to be limited

⁹ Small-scale conversion of forest land mainly for subsistence agricultural production is not considered here. While such conversion is often illegal, the volume of harvested logs tends to be small as converted sites have often been cleared of commercially valuable timber by loggers. In addition, conversion is driven mainly by poverty and is therefore best handled through other processes than those focused on illegal logging (see Ch. 6).

making export markets the main outlet for conflict timber. Even if a domestic market existed, control of trade would be difficult or impossible because in times of conflict national forest administrations are weak or paralyzed, and the prospect of violence prevents international players from entering the scene.

The emphasis should be placed on detection of conflict timber and barring it from entering the international markets. Customs services play a key role. Import bans from countries subject to conflict have proven rather effective if they can be applied to an entire country as customs procedures are applied at national borders. However, if conflict timber originates from one particular region within one country it may be difficult to identify it unless proof of site of origin is required for all imported timber.

The control of conflict timber should be combined with efforts to curb international trade of illegal timber; the volumes of conflict timber are likely not large enough to justify a launch of an independent process.

6. TO LAUNCH OR NOT TO LAUNCH

It is hoped that the typology covers the most common and significant contexts for illegal logging. However, it should be noted that finding a match does not necessarily indicate that there is a need to launch a major process to combat illegal logging. Such processes tie up significant resources and draw attention from other issues, and the need and the justification for mounting a process on illegal logging should be examined prior to their launch. The minimum conditions warranting such a process may include the following.

Illegal logging has significant negative impacts in economic, environmental or social terms. Embarking on a process to tackle illegal logging may not be justified, if the timber volumes involved and the impacts are limited.

The underlying reasons behind illegal logging are not tackled more effectively through some related process. Often, the key drivers behind illegal logging such as poverty, imbalance of demand and supply of timber, overall weakness of sector and country governance etc. are addressed by other processes and sectors to which they are more closely related. For instance, where forest resources are limited, agricultural or rural development programs are often more effective in reducing poverty than forestry. Reduction of timber demand is often part of industrial or energy policies. Improved control of illegal logging may materialize as a “by-product” of overall efforts to strengthen the public forest administration or state forest enterprises.

The key question is whether launching a process on illegal logging can add to them. If not, providing support to the combat against illegal activities may still be needed, but a major process is not necessarily justified.

It is worth noting that in some circumstances illegal logging may be too narrow a scope. There are illegal acts that are only indirectly related to timber production and sale but which may still have significant negative effects. For instance, state forest enterprises may suffer significant financial losses through manipulation of their accounts, transfer pricing or channeling of contracts or funds to favored enterprises (cf. Ch. 2.4.1). In this case, it may be

necessary to broaden the scope of illegal logging processes to cover all types of illegalities in the forest sector (as was done e.g. in Bosnia Herzegovina).

Improved enforcement of legal framework contributes to improved economic, environmental and social sustainability of forest management. The implicit assumption in launching action against illegal activities is that the enforcement of the legal framework brings about positive changes in the sector. While this is usually and predominantly true, sometimes the legal frameworks contain elements with questionable impacts. The relevance of legality as a development goal has been questioned in circumstances where legislation is perceived as fundamentally flawed i.e. where legality does not imply legitimacy or sustainability.

For instance, where impoverished populations depend mainly on fuelwood for their energy supply, the legitimacy of regulations preventing fuelwood collection for subsistence purposes may be questioned. Legislation concerning concession agreements may ignore the customary rights of indigenous populations undermining the social sustainability of concession management.

In such situations, it is necessary to assess whether the positive impacts that the enforcement of legislation would bring about outweigh the negative ones. The choice is often difficult because introducing legislative changes is a lengthy process and the cost of inaction may be high.

To circumvent the problem, “selective” enforcement of legislation has been proposed but this approach carries obvious risk; there are no objective criteria why courts should prioritize some legal acts over others. Some proposals have sought to complement the existing legal framework with various “soft” criteria but it is hardly conceivable that any judicial system could base its assessment of legality on any other criteria than the legislation in force.

Usually, the legal framework has to be accepted as a whole. If its enforcement is not seen to promote legitimacy or sustainability or rather to put them at risk, the best alternative may be to pursue these goals through other means than launching a process on illegal logging.

7. REFERENCES

- Government of Armenia 2004. Action Plan for Mitigating Actions to help Address the Problems Associated with Illegal Logging Annex to the Government of Republic of Armenia Protocol Decision N 38 from 30 September 2004
- Auzel, Philippe, Timothée Fomete, Odi Joseph & Jean-Cyril Owada. 2002. Evolution of the Exploitation of Cameroon's Forests: National Production, Illegal Exploitation, Perspectives. Final report: Executive Summary. 27 November 2002.
- Baker, Murl, Robert Clausen, Ramzy Kanaan, Michel N'Goma, Trifin Roule & Jamie Thomson. 2005. Dimensions of the Problem in Asia and Africa. Volume III. African Cases. (BIOFOR) IQC. Contract No. LAG-I-00-99-00013-00, Task Order 09 Submitted to: USAID/OTI and USAID/ANE/TS. Final Report Submitted to the United States Agency for International Development Conflict Timber.
- Bikié, Henriette, Jean-Gaël Collomb, Louis Djomo, Susan Minnemeyer, Roger Ngoufo & Samuel Nguiffo. 2000. An Overview of Logging in Cameroon. Linking Forests & People. A Global Forest Watch Cameroon Report. Contributions by Théophile Ndjodo, Ousseynou Ndoye, Laurie Clark, Elizabeth Selig & Dirk Bryant.
- Blaser, Jürgen, Arnaldo Contreras, Tapani Oksanen, Esa Puustjärvi & Franz Schmithüsen. 2005. Forest Law Enforcement and Governance (FLEG) in Eastern Europe and Northern Asia (ENA). Reference paper prepared for the Ministerial Conference, Nov. 22–25, 2005 St. Petersburg, Russia. Forest Law Enforcement and Governance Process for Europe and Northern Asia (ENA-FLEG).
- Brown D, 2002. Analysis of Timber Supply and Demand in Indonesia, Prepared for the World Bank-World Wildlife Fund Alliance, December 2002.
- CONADEH & Global Witness. 2005. Independent Forest Monitoring Pilot Project Honduras. First Summary Report. Period May-July 2005. Tegucigalpa and London. September 2005.
- Del Gatto, Filippo 2004. The Impacts of Unregulated Forestry Production in Honduras. REMBLAH-COSPE.
- Contreras-Hermosilla & Global Witness 2003. Emerging best practices for combating illegal activities in the forest sector. Governance and Poverty Impacts of the Illegal Timber Trade in Central America DFID – World Bank – CIDA
- Del Gatto, Filippo, Adrian Wells, Michael Richards, Ibis Coindres & Arnaldo Contreras-Hermosilla. 2004. The Forestry Sector in Honduras: The Legal Barriers.
- EIA & Telapak. 2005. Illegal Logging in Papua and China's Massive Timber Theft.
- World Bank 2001. Environment Strategy for the World Bank.
- EIA 2005. The Illegal Logging Crisis in Honduras. How U.S. and E.U. Imports of Illegal Honduran Wood Increase Poverty, Fuel Corruption and Devastate Forests and Communities. Environmental Investigation Agency. Produced with the Support of the Center for International Policy.
- ERM. 2003. Feasibility of and Best Options for Systems for the Identification, Verification, Licensing/Certification and Tracking of Legality of Timber and Related Products for Imports into the EU. Contract No: B4-3040/2002/343025/MAR/E3. Final Report. *www.erm.com*. May 2003.

- Essama-Nssah, B. & James J. Gockowski. 2000. Cameroon Forest Sector Development in a Difficult Political Economy. Evaluation Country Case Study Series. The World Bank.
- Global Witness & International Transport Workers Federation (ITF). 2001a. The Pivotal Role of Liberia's Forests and Flag of Convenience in Regional Conflict. Taylor-made. September 2001.
- Global Witness. 2001b. The Credibility Gap –and the Need to Bridge It Increasing the Pace of Forestry Reform. A briefing document. May 2001.
- Global Witness. 2002a. Deforestation without Limits. How the Cambodian Government Failed to Tackle the Untouchables. July 2002.
- Global Witness. 2002b. Logging Off How the Liberian Timber Industry Fuels Liberia's Humanitarian Disaster and Threatens Sierra Leone. September 2002.
- Global Witness. 2003. The Last Frontier. A Conflict of Interests. The uncertain Future of Burma's forests. A briefing document. October 2003.
- Global Witness. 2004. Taking A Cut. Institutionalised Corruption and Illegal Logging in Cambodia's Aural Wildlife Sanctuary – A Case Study. November 2004.
- Global Witness. 2005a. A Choice For China. Ending the destruction of Burma's Northern Frontier Forests. A briefing document. October 2005.
- Global Witness. 2005b. Forest Law Enforcement in Cameroon. 3rd Summary Report of the Independent Observer, July 2003-February 2005. April 2005.
- Global Witness. 2005c. Timber, Taylor, Soldier, Spy: How Liberia's Uncontrolled Resource Exploitation, Charles Taylor's Manipulation and the Re-recruitment of Ex-combatants are Threatening Regional Peace. A report submitted to the UN Security Council. June 2005.
- Greenpeace. 2005. Arrests in Amazon Expose Corruption and Illegal Logging. News release. June 02, 2005.
- Hiller, Marc A., Benjamin C. Jarvis, Hikma Lisa, Laura Paulson, Edward H. B. Pollard & Scott A. Stanley. 2002. Illegal Logging: A Case Study from Gunung Palung National Park.
- Huljus, Johannes & Britta Jell. 2005. Cambodia Review of Strategic Forest Management Plans Prepared by Concession Companies Operating in Cambodia. Part II: Final Report. GFA. August 2005.
- Independent Forest Sector Review. 2004. The Forest Sector in Cambodia Part I: Policy Choices, Issues and Options. April 2004.
- Inoguchi, Akiko, Rowena Soriaga & Peter Walpole. 2005. Considerations from Southeast Asia. Approaches to Controlling Illegal Forest Activities. Working Paper Series No. 7, 1st Edition. Asia Forest Network. March 2005.
- Kotlobay, Anatoly & Andrey Ptichnikov. 2002. (ed. Polina Gerassimova, Julia Kalinicheva, Irina Prokhorova, Tamara Rousina & Alexey Vaisman). Illegal Logging in the Southern Part of Russian Far East. Problem Analysis and Proposed Solutions. WWF. February 2002. Moscow.
- Lopina Olga, Andrei Ptichnikov & Alexander Voropayev. (ed. Per Larsson). 2003. Illegal Logging in Northwestern Russia and Export of Russian Forest Products to Sweden. January 2003.

- Margulis, Sergio. 2001. Quem são os agentes dos desmatamentos na Amazônia e por que eles desmatam? World Bank.
- Miller, F. 2004. Forest Management in Cambodia. Independent Forest Sector Review, Chapter 4.
- MINEF (1995) IN: Essama-Nssah, B. & James J. Gockowski. 2000. Cameroon Forest Sector Development in a Difficult Political Economy. Evaluation Country Case Study Series. The World Bank.
- NRM-MFP-Bappenas Forest Futures Working Group (2004). Forest Futures Scenario Analysis, NRM-MFP-Bappenas, Jakarta.
- Ottitsch, Andreas, Alexander Moiseyev, Nikolai Burdin & Lauma Kazusa. 2005. Impacts of Reduction of Illegal Logging in European Russia on the EU and European Russia Forest Sector and Trade EFI. Study commissioned by DFID-UK and The Finnish Ministry of Foreign Affairs to the European Forest Institute. Final Report.
- Savcor Indufor Oy. 2005a. Ensuring Sustainability of Forests and Livelihoods through Improved Governance and Control of Illegal Logging for Economies in Transition. Discussion Paper for the World Bank. 31 May 2005. Helsinki.
- Savcor Indufor Oy. 2005b. "Ensuring Sustainability of Forests and Livelihoods through Improved Governance and Control of Illegal Logging for Economies in Transition." Country Report - Serbia and Montenegro. Prepared for the World Bank. Helsinki.
- Seneca Creek Associates & Wood Resources International, LLC. 2004. "Illegal" Logging and Global Wood Markets: The Competitive Impacts on the U.S. Wood Products Industry Prepared for American Forest & Paper Association. November 2004.
- Smeraldi, Roberto. 2005. The Case of Brazil. TFD's Dialogue on Illegal Logging. Hong Kong. March 8-10, 2005.
- Tacconi *et. al* 2004 IN WWF/World Bank Alliance. 2005. Illegal Logging and Law Enforcement in Indonesia. Draft Summary. Results from the WWF/World Bank Alliance Assessment of Illegal Logging and Law Enforcement (2002-2004). 4 March 2005.
- WWF. 2004. Quick Overview Facts on Illegal Logging in Russia.
- WWF/World Bank Alliance. 2005. Illegal Logging and Law Enforcement in Indonesia. Draft Summary. Results from the WWF/World Bank Alliance Assessment of Illegal Logging and Law Enforcement (2002-2004). 4 March 2005.

SAVCOR

SAVCOR INDUFOR OY
Töölönkatu 11 A
FI-00100 Helsinki, FINLAND
Tel.: +358 9 684 0110, fax: +358 9 135 2552
indufor@ savcor.com
www.savcor.com