



## Forest concessions and corruption

Tina Søreide, CMI

**U4 ISSUE 3:2007**



# Forest concessions and corruption

Tina Søreide, CMI

**U4 ISSUE 3:2007**



### U4 Issue

This series can be downloaded  
from [www.U4.no/document/publications.cfm](http://www.U4.no/document/publications.cfm)  
and hard copies can be ordered from:  
U4 Anti-Corruption Resource Centre  
Chr. Michelsen Institute  
P.O. Box 6033 Postterminalen,  
N-5892 Bergen, Norway  
Tel: + 47 55 57 40 00  
Fax: + 47 55 57 41 66  
E-mail: [U4@U4.no](mailto:U4@U4.no)  
[www.U4.no](http://www.U4.no)

U4 ([www.U4.no](http://www.U4.no)) is a web-based resource centre for donor practitioners who wish to effectively address corruption challenges in their work. We offer focused research products, online and in-country training, a helpdesk service and a rich array of online resources. Our aim is to facilitate coordination among donor agencies and promote context-appropriate programming choices.

The centre is operated by the Chr. Michelsen Institute (CMI: [www.cmi.no](http://www.cmi.no)), a private social science research foundation working on issues of development and human rights, located in Bergen, Norway.

U4 Partner Agencies: DFID (UK), Norad (Norway), Sida (Sweden), Gtz (Germany), Cida (Canada), and the Netherlands Ministry of Foreign Affairs.

All views expressed in this issue paper are those of the author(s), and do not necessarily reflect the opinions of the U4 Partner Agencies.

Copyright 2007 – U4 Anti-Corruption Resource Centre

Front page photo by leoffreitas at [www.flickr.com](http://www.flickr.com)

### **Indexing terms**

Corruption, Forestry, Natural Resources

### **Project number**

28401

### **Project title**

U4 Anti-Corruption Resource Centre

## Contents

|   |           |
|---|-----------|
| List of boxes and figures .....                                 | 5         |
| <b>1 Introduction: corruption and the forest industry .....</b> | <b>7</b>  |
| <b>2 Forest concessions and the risk of corruption.....</b>     | <b>10</b> |
| 2.1 <i>The concession system</i> .....                          | 10        |
| 2.2 <i>Regulation and the design of concessions</i> .....       | 11        |
| Choice of forest industry regulation.....                       | 11        |
| Concerns included in the forest management plan.....            | 12        |
| Details in the concession contracts.....                        | 13        |
| 2.3 <i>Award of concessions</i> .....                           | 14        |
| Direct violation of formal award procedures .....               | 14        |
| Hidden violation of the rules.....                              | 15        |
| Misuse of legal deviations from the rules .....                 | 15        |
| Political influence on the forest authorities.....              | 16        |
| 2.4 <i>Operation of concessions</i> .....                       | 16        |
| Violated concession terms.....                                  | 16        |
| Renegotiation of concessions.....                               | 17        |
| Renewal of the concession.....                                  | 18        |
| <b>3 Discussion and policy recommendations .....</b>            | <b>18</b> |
| 3.1 <i>Principles and policies</i> .....                        | 19        |
| Constitutional control.....                                     | 19        |
| Forest development plan .....                                   | 19        |
| Competition.....  | 19        |
| Enforcement.....  | 20        |
| 3.2 <i>Recommendations</i> .....                                | 21        |
| List of recommendations.....                                    | 21        |
| <b>4 References .....</b>                                       | <b>23</b> |

## List of boxes and figures

|  |    |
|--|----|
| <i>Table 1: Forms of forest corruption</i> .....                         | 8  |
| <i>Box 1: A typology of corruption</i> .....                             | 9  |
| <i>Figure 1: Illustration of the concession system</i> .....             | 11 |
| <i>Box 2: Forest Law Enforcement, Governance and Trade (FLEGT)</i> ..... | 20 |

## Abstract

The forest industry has the potential to contribute to the economy and increase state revenues in many developing countries. The realisation of these opportunities depends on the governance of the forest industry and the ways in which forests are managed. Donors can play an important role in this process by providing funding and other support to developing country governments. This U4 Issue paper discusses how corruption influences the logging industry and deprives developing country governments of important revenues. It explains the concession system in forestry and the risks of corruption in forest sector contracts. Some policy implications are drawn, suggesting a ranking of strategies, with a particular focus on aid-related implications. The paper is part of the project 'Corruption in Natural Resource Management' at the U4 Anti-Corruption Resource Centre: [www.U4.no](http://www.U4.no)

# 1 Introduction: corruption and the forest industry

The forest industry has the potential to improve its economic performance and increase state revenues in many developing countries.<sup>1</sup> The realisation of these opportunities depends critically on the governance of the forest industry and the ways in which forests are utilised. Donors can play an important role in this process by providing funding and guidance to developing country governments.

This paper discusses how corruption influences the logging industry and deprives developing country governments of important revenues. Corruption is directly linked to illegal and unsustainable logging, a problem that causes significant environmental damage in terms of erosion and reduced water quality, loss of biodiversity and challenges for communities that are settled in natural forests.<sup>2</sup> To combat these challenges in the forest sector, many countries are developing forest management plans and better monitoring systems, and have established forest concession systems. However, in order to prevent these crimes continuing to occur in forms that are more advanced and difficult to detect, it is critically important to understand and develop strategies to address the causes of the crime, one of which is corruption.

This study focuses on the risk of corruption in forest concessions. Under a concession system, logging occurs as part of industrial contractual arrangements between the government, private landowners and private sector firms. The concessions refer to the set of agreements between a forest owner and another party on forest management or harvesting. The allocated rights to utilise the forest are limited to a defined forest area and a determined period of time. The contracts determine the terms of logging, sustainability criteria and government royalties, and include all the main components of regulation of the industry. The functions and failures of this system are hence particularly relevant to understanding private sector influences and corruption in this sector.

There are several reasons why illegal and unsustainable logging may take place in spite of forest regulation and concession systems. Sound forest management plans can, for example, be bypassed via political leverage. Forest Trends (2006) reports how loggers, mainly from Malaysia, cooperate with Papua New Guinea's political elite to make illegal logging possible. Despite the Papuan government's policies, laws and regulations, the rules are not enforced and it has proved very difficult to fight the loggers in the courts. Forest corruption, combined with influence at various political levels, has caused vast environmental damage in the country and is claimed to have devastated rural living standards. According to Forest Trends (2006), the basic rights of Papuan landowners are ignored. Another example is the Democratic Republic of Congo where, in 2002, the government was convinced by the World Bank to protect the rainforest and suspend the allocation of new logging titles and the renewal or extension of existing ones (Greenpeace: 2007). Despite the government's promises, however, it had by April 2006 signed 106 new contracts with logging companies covering more than 15 million hectares of forest.

Unsustainable logging that occurs in spite of a government's regulations will often be made possible by some form of corruption, though it has other explanations too:

Logging might just occur in clear violation of the forest regulation. Illegal logging has taken place undisturbed in some countries, even though the police have been informed.<sup>3</sup> Indeed, in some instances, the police and other authorities may themselves be implicated or play an active role in corruption.

Forests are sometimes perceived to be a very abundant resource, and reasons for taking care of them have not been sufficiently apparent to the regulatory authorities.

---

<sup>1</sup> The global annual loss in revenues from the forest sector is substantial although the estimated numbers are uncertain (estimates of global annual loss vary from 10-15 billion Euros to more than 100 Euros).

<sup>2</sup> The consequences for some communities have been devastating, see REF on illegal logging and native populations.

<sup>3</sup> For examples, see Four Corners (2002) and Greenpeace (2007). See also Erdenechuluun (2006), a World Bank report on illegal logging in Mongolia.

Scarcity of human and financial capabilities impedes the functioning of monitoring systems, and reduces countries' ability to develop good forest management plans and regulatory systems.

Commercial interests are often allowed to influence timber production at the cost of environmental concerns and non-timber utilisation of forests. World timber prices and the terms of logging are decisive for industry profits, and many firms have drawn benefits from weak regulatory frameworks, or frameworks that are poorly enforced, when that has been possible.

Though we do not have any good estimates of the extent and impact of corruption in the forest industry, we do know that such crime influences the sector in several different ways, as is well described by Contreros-Hermosilla (2002). Table 1 summarises typologies of forest corruption, which may involve different decision-makers: monitoring officers, customs officers, landowners, concession authorities, logging firm representatives, politicians and forest policy-makers in local and central government administrations, forest traders, information brokers and the police.<sup>4</sup>

**Table 1. Forms of forest corruption**

| Corruption related to...  | Who and how   | Potential impacts  |
|---------------------------|---|--|
| Illegal logging           | Firms and landowners                                      | Deforestation, land erosion, damage to vulnerable and protected forests              |
| Monitoring of the logging | Forest controllers, fee collection system, trading system | Informal logging/poor knowledge about actual timber production, environmental damage |
| Environmental control     | Forest controllers  | Loose controls for the protection of non-timber values, environmental damage         |
| Timber trade/timber theft | Forest traders, customs officers, buyers <sup>5</sup>     | Reduced state revenues, illegal sale of protected species, higher prices             |
| Regulatory systems        | Forest authorities, politicians                           | Misleading forest management plan, unsustainable logging/deforestation               |
| Royalties                 | Political levels, fee collection system                   | Lower state revenues   |
| Logging licences          | Political levels, forest authorities, information brokers | Uncontrolled/ unsustainable logging  |
| Concession terms          | Political levels, forest authorities                      | Exploitation of forests, too large concession areas, less revenues                   |

See Milledge, Gelvas and Ahrends (2007) for a detailed and comprehensive report on illegal logging and corruption in the forest sector in Tanzania.

The problem of corruption in the forest sector is therefore complicated, with a number of potential players involved and with different consequences and solutions. The problem is obviously a question of governance, whereas the forest industry represents solutions as well as causes. Private firms will in many cases offer highly needed professional expertise; they offer advice about forest management and can also be given forest management responsibility. At the same time, we know that commercial interests sometimes gain too much influence over decision-makers in the forest sectors, which may result in unsustainable logging and forest damage.

This paper will focus on how corruption might challenge the regulation of the forest sector. It should however be noted that corruption is merely one of several explanations why commercial interests might gain too much influence on their own terms of operation. Poor decision-making may also be due

<sup>4</sup> See also Environmental Investigation Agency (2003). See Hembery et al. (2007) for a recent report on estimations of trade of illegally logged timber and discussion about how corruption facilitates the crime.

<sup>5</sup> For instance, in October 2004 the Spanish authorities seized 33 tonnes of illegally logged Brazilian wood destined to be crafted into musical instruments, according to *BBC News 13 Oct 2004*. The detection was part of a larger operation, which also included the seizure of wood at different places in Spain believed to amount to 1000 whole trees. The wood, *Lignum Vitae*, was listed by the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) as being under threat of extinction. The trade could not occur to this extent without the involvement of different actors and controllers within the forest industry.

to weak capacities in developing country forest authorities, or regulatory restrictions that are formulated so vaguely that they can easily be exploited. The commercial influence on regulatory decisions in the forest sector can be called corruption when a decision-maker has obtained some form of personal benefit as compensation for making a particular decision.

### **Box 1: A typology of corruption**

While legal definitions of corruption vary across countries,<sup>1</sup> the phenomenon is commonly defined as ‘the misuse of public authority for private benefit’. This definition describes the conceptual problem of corruption, though it is important also to underscore the element of *collusion*: corruption is an agreement with mutual benefits. The bribe is meant to compensate a decision-maker for diverging from the goals of the institution that the decision-maker represents. The implication is that corruption, compared to legal ways of exerting influence, is more likely to undermine attempts at introducing better regulation of an industry, and the improvement of legal rules will seldom be enough to prevent the crime.

There will, though, be *three preconditions* that have to be met for there to be corruption: (i) *rent* – a benefit of personal value motivates the act; (ii) *authority* – corruption requires influence over decisions; and (iii) *opportunity* – the quality of institutions determines the risk of being sanctioned.

Personal benefits considered worth being corrupt for may have a very low financial value, however. The bribes may be a minuscule fraction of huge contracts, but still make a considerable difference to the personal economy of decision-makers. The authority to influence large contracts requires a certain position in the bureaucratic hierarchy, but the corrupt do not necessarily have to be the ones who sign the contracts. Representatives of staff can have decisive influence, for instance in technical questions. ‘Opportunity’ reflects the possibility of getting away with corruption, which depends on the quality of institutions – the judiciary, auditing, procurement offices, antitrust institutions, the police force, and so on.

The literature on corruption distinguishes between the circumstances of the crime. *Grand corruption* refers to the bribery of politicians or bureaucrats with influence over large projects and important contracts. High level corruption is sometimes described as *crony capitalism*, in which political networks dominate important private assets, or *state capture*, in which private firms are able to influence public power to their own benefit.

*Petty corruption* is at the other end of the scale: small payments offered to or demanded from persons representing a lower level of an institution, such as local tax collectors, customs officers, health personnel or bureaucrats providing firms with the required licences or permits. The relevant business term is *facilitation payments*, which, according to Transparency International, refer to payments “made to secure or expedite the performance of a routine or necessary action to which the payer of the facilitation payment has legal or other entitlement.”

*Private-private corruption* denotes the situation when one firm bribes a representative of another firm, neither of them representing a public institution. Judicial definitions of corruption will not always include situations in which a public institution is not involved. All of these forms of corruption may be present in the forest industry.

*Sources: Aidt (2003), Søreide (2006)*

The key information drawn from composite corruption indices, which rank countries according to their perceived levels of corruption, is that the levels of corruption vary considerably across countries (Transparency International, 2006; World Bank, 2006). Factors that appear important in understanding this variance include the functioning of democratic systems, the rule of law and the quality of public institutions (for a review, see Lambsdorff, 2006; Kaufmann, 2006; Rose-Ackerman, 2004). In addition, however, there is strong variation in the extent of corruption across industries (Transparency International, 2002; Batra et al., 2003; Søreide, 2006b). Our capacity to explain this variation is limited, though some aspects that appear important are the size of contracts, the potential market power for the firms, entry barriers and openness to trade, level of technology, monitoring

opportunities, tender systems, and the quality of sector-specific regulatory governance.<sup>6</sup> These are factors that might differ substantially within the forest industry, and thus the risk of corruption will vary – across countries and across local areas, concessions, firms and the agents involved.

The next section explains the concession system in forestry and the risk of corruption in these contracts. Thereafter, some policy implications are drawn, suggesting a ranking of important strategies, with a particular focus on aid-related implications.

## 2 Forest concessions and the risk of corruption

There are different risks of corruption in the concession system, and this chapter is structured according to how the problem materialises at the different stages of the process: (i) design of concessions; (ii) award of concessions; and (iii) operation and logging. It begins with an introduction to the concession system.

### 2.1 The concession system

Efficient and sustainable logging requires some form of cooperation and contractual arrangements between the government in a country, landowners and the private sector.<sup>7</sup> Private firms have professional logging skills and machinery, and will often be able to finance the operations. Private firms may also be used in the management of the forests. The cooperation between the government and the private sector is usually determined by concession contracts, with a categorical difference between *logging concessions* and *forest management concessions*.

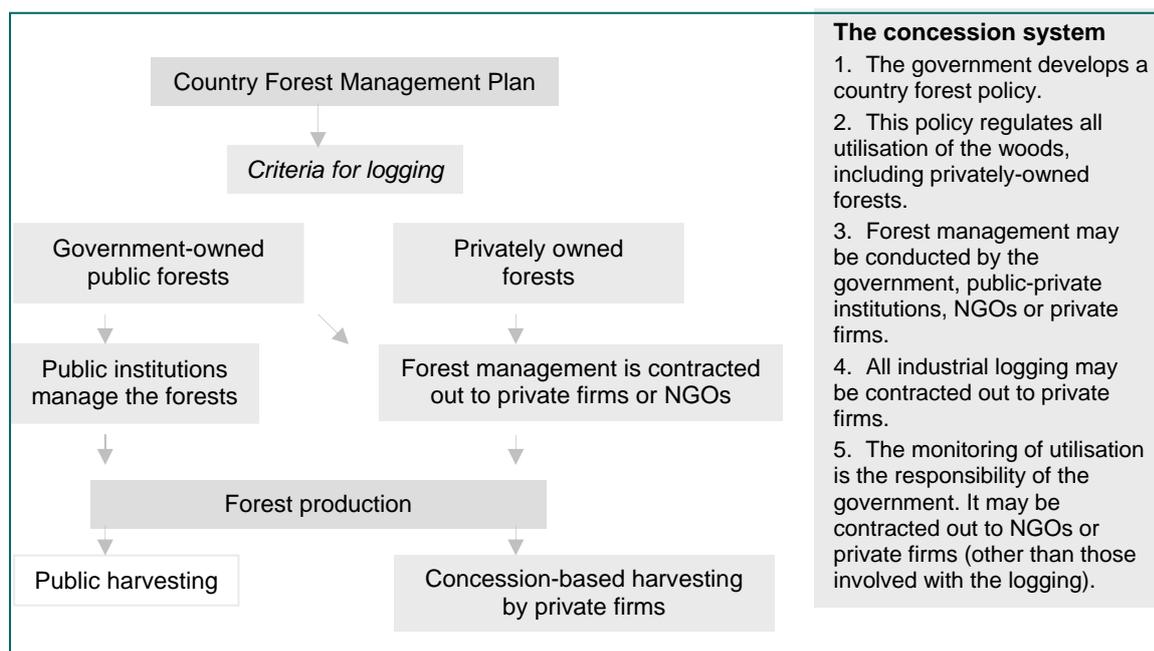
All industrial logging is now concession-based, or privatised and regulated. The details in the concessions are determined on the basis of a country's forest management policy, and may include a number of aspects, such as environmental concerns, royalties, employment issues, district politics, trade of the harvest, renewal of the concession, or length of the logging permit. However, although most governments apply some form of concession-based system in their forest management, the functioning of these systems varies greatly between countries.

---

<sup>6</sup> For more general information about the causes of corruption in general, see Rose-Ackerman (1999). See Rosser (2006) for a survey of literature on the resource curse, and Kolstad and Søreide (2007) for a general introduction to the problem of corruption and natural resource exploitation.

<sup>7</sup> In some countries, the government will itself be a major landowner.

Figure 1. Illustration of the concession system



Developing countries cannot necessarily adopt the systems of developed countries, which usually function better. The lack of human and financial capacities is only part of the challenge. Developing countries also have systematically different timber characteristics (tropical forests versus spruce or pine wood, for instance), different biodiversity, different industrial structures, and other forest management traditions. In addition, problems related to other forms of economic crime, monitoring and auditing, as well as weak institutions in general, are all systematically present in developing countries. Figure 1 illustrates the concession system and its participants.

## 2.2 Regulation and the design of concessions

The actual terms of logging depend on the formal system of forest concessions, but also on more informal factors such as the system's ability to follow-up on abuse and violation of concession terms. This section describes how concessions can be manipulated through corruption. The most important targets for such influence are the choice of industrial regulation, concerns determined by the forest management plan, and details of the concessions. A wide subset of actors is eager to gain influence over these targets, ranging from landowners, business people, lobby groups, and politicians who can have strong interests in the government's choice of policy, personally or on behalf of a group.

### Choice of forest industry regulation

Governmental regulation is needed when different actors in a sector have different interests and incentives. In particular, this is necessary in sectors where firms make large investments and are likely to gain strong market power, such as the utilities or the exploitation of minerals. Regulation of the logging industry, however, is required even if this sector is rarely characterised with natural monopolies. The forests are public goods with multiple known and many unknown, potential values. The protection of these values requires governmental involvement, particularly since the firms involved are often large and able to draw monopolistic benefits. The firms wish to choose the technology applied in the logging, the area of logging, the workforce, and the spectrum of products extracted from the forests, in ways that maximise profits from the sale of forest products. The buyers of the timber wish to keep prices low. Local communities may wish to protect the forests for

recreation, tourism and household values, or they may wish to control the logging and develop forest land for other purposes.

Regulation of logging can occur through privatisation or a concession system. The choice in itself is of less importance to ensuring the goals of regulation or reducing the risk of corruption, as long as the terms are properly determined and monitoring systems and sanctions function as they are supposed to. The decision should rather depend on the characteristics of the forests: privatisation is generally most appropriate when it comes to fast-growing forest plantations, where utilisation is based on single products and not a variety of forest values. For tropical forests, on the other hand, with their many non-timber values, it has proved more difficult to ensure protection of these non-commercial values through regulatory systems. A certain level of public ownership may therefore be necessary for the sustainable management of many natural forests (Gray, 2002).<sup>8</sup>

The key challenge in the design of concession-based regulation is to draw benefits from competition and extract revenues from the industry through the tax system and royalties, while at the same time motivating efficient logging and actively promoting environmental wellbeing. The concessions therefore describe a set of rights and obligations, and also determine the criteria for award and sanctions if obligations are not met.

The concession contract can never be complete, however. There are too many imaginable contingencies (technological development, political changes, international issues), and they may also be unforeseeable. In addition, the cost of monitoring them all, and enforcing them, would be too high. Complete and detailed control of an industry cannot therefore be the goal of such a system; thus incentive mechanisms and underlying principles must guide the regulation regime (Crampos and Estache, 1997). These systems are usually developed as part of a country's forest management plan.

#### Concerns included in the forest management plan

A government's forest policies are established in a *forest management plan*, and will often comprise most forms of human intervention in the forests and also a plan for the active protection of forest values. The terms of logging will cover the extent of cutting, but also the planting and replanting of various species. In addition, the plan will often consider the forest infrastructure, and the need for roads and where pathways will be allowed. Various environmental concerns, promoted by NGOs and the environmental movement, are often more present in developed than developing countries, though these concerns are increasingly being included in developing countries' forest management too. The progress towards forest protection depends very much on the government's capacity not only to establish a good forest management plan and enforce it, but also to determine a priority ranking of different concerns.

A ranking of the variety of governmental concerns in the forest sector is important for reducing the risk of corruption and preventing too much commercial influence on regulation. A first difficulty in this respect is to choose between fiscal benefits, on one side, and efficiency concerns, such as the benefits from competition, on the other. These interests can seldom be maximised simultaneously, since revenues through a tax system will normally increase in proportion to the firms' ability to obtain profits. And firms' profits will increase in the extent to which they are allowed to determine their terms of logging, leaving out environmental concerns and replanting. Accordingly, the tax base would be larger the more profits firms were allowed to make, while at the same time environmental concerns and consumer interests are likely to restrict the firms' profits. A decision about the long-term protection of forests may thus be difficult for governments in urgent need of revenue.

---

<sup>8</sup> *Plantations* are forest stands established artificially by afforestation and reforestation for industrial and non-industrial usage. A *natural forest* is defined as the total area of forest composed primarily of indigenous (native) species. The area is estimated by subtracting plantation area from total forest areas.

The government should provide information on how to prioritise in such conflicts of interest. The ranking of interests should also be explained and justified. This is particularly the case when fiscal concerns have a high priority, since these are interests that correspond to those of corrupt decision-makers. The fewer the restrictions on logging and the environmental obligations of the firms, the more the profits from logging, and the more they are ready to offer in bribes to decision-makers in the forest management.

#### Details in the concession contracts

In addition to choices in regulation and priorities in forest management, there are details in the concession contracts that are important to understanding the risk of corruption. In particular, the forest revenue system influences forest utilisation and incentives to adopt sustainable harvesting methods.<sup>9</sup>

##### *Concession size and length of the term*

The size of the area under concession agreement is important in enabling a profitable harvest. Large firms will often seek to avoid small units, and this is a pressure that often will be in conflict with the goal of developing a competitive and diverse forest industry. Gray (2002) argues that the sizes of the concession areas are more often too large than too small, and more effort should be made to determine the most appropriate size.

When it comes to the *length* of the concession term, incentives and strategies are less obvious. Short-term tenure may be important in ensuring frequent evaluation of the logging. Long-term concession tenures, however, can create incentives to practise sustainable forest management. The tenure should depend on the forest and the values that need protection. Long-term concession tenures are most applicable in rapidly growing forest areas/plantations, while more control and evaluation will be necessary in slow-growing tropical forests with many non-market benefits. Short-term contracts with renewal linked to performance reviews based on simple and transparent criteria will often provide better incentives for performance in these forests.

##### *Annual concession fees and initial concession licence fees*

Concession fees, also called royalties, are initial or annual payments made by firms to get or retain the licence to operate a forest area.<sup>10</sup> The fees are determined by the size of the concession area or annual allowable cut. The payments are made in addition to those levied on the timber harvested and collected through the tax system. Concession fees have not been much applied in forest revenue systems thus far. Only a few countries operate with royalties, and when they do, they represent only a small fraction of total forest revenue.

However, such fees could be of great value since they provide opportunities for extracting revenue, while at the same time establishing incentives for efficient and comprehensive utilisation of forest values. The size of the fees, which is an obvious target for commercial interests (and bribes), is difficult to determine. Low or no fees can make commercial logging profitable and encourage entry and competition. However, as pointed out by Gray (2002), the acquisition of large concession areas should not be too cheap – since this increases risks of speculative acquisition and creaming, where only the most valuable parts of the trees or species are taken. Hence, the fees must be high enough to signal scarcity rather than abundance, but low enough to ensure competition.

---

<sup>9</sup> See Gray (2002) for a broader discussion of forest concessions.

<sup>10</sup> Bribes, which may appear to resemble the fees since both represent cash transfers, are informal and paid to individual decision-makers. In contrast to formal fees, bribery represents collusion with a decision maker in the regulatory authorities, and mutual benefits that secure the firm a decision enabling deviation from the established goal of the government. The conceptual differences between formal and informal payments are therefore considerable, one improving efficiency while the other has the reverse effect.

### *Fee collection*

Another important part of the forest revenue system is the system of fee collection. Estimation of the basis for the fees can be difficult, discretionary choices can be subject to corruption, and firms may try to avoid payment altogether. The introduction of a royalty system to increase forest revenues should therefore also include a detailed and comprehensive plan for this part.

## 2.3 Award of concessions

The awarding of forest concessions may be carried out on the basis of direct negotiation with individual firms, administrative decisions based on tender procedures, auctions, or lottery. The choice of system will usually be made on the basis of the country's industrial and environmental strategies, as well as the characteristics of the markets for the forest products.

Lotteries between qualified participants are not often applied since the opportunity to secure benefits through competition and revealed interests is reduced. Direct negotiations with one firm take place when there is only one qualified candidate. Tender procedures imply a thorough procedure and ranking of the firms according to a system with scores, and these scores are determined by the contents of the forest management plan. Auctions will also require administrative procedures, since the competing firms must all be considered qualified. A specific benefit of auctions is the possibility of revealing the firms' efficiency and their ability to see opportunities from forest utilisation. Sealed bid auctions are usually considered the optimal system, which also reduces opportunities for collusion between the bidders.<sup>11</sup>

The risk of corruption is present in each of the award systems. In fact, even the choice of award system may be exposed to influence from commercial interests, since some firms will have a much higher probability of gaining concessions and/or influencing their terms under a particular system. The influence may occur as direct violations of the procedures, or through some form of misuse of legitimate deviations from the procedures. The forms of influence may be supported by political pressure and kept hidden because of a common resistance among firms to speaking out about unfair competition and corruption (Søreide, 2006a).

### Direct violation of formal award procedures

Crime is a huge challenge in the forest industry in many countries, and forest regulations and the set of concession rules may simply not be respected. Contreras-Hermosilla (2002) reviews the different forms of forest crime (which comprises far more acts than those related to the timber licences), and he describes how a large proportion of the logging occurs informally, in clear violation of concession rules. For instance, a working group in Cambodia found that in 1999 94% of the logging was carried out in illegal ways (WGNRM, 2001), and a number of countries have estimated a loss of billions of dollars in state revenues due to illegal logging (Indonesia, the Philippines and Papua New Guinea, for instance).

The logging that occurs in spite of the presence of formal rules and the concession system has sometimes been allowed to continue fairly undisturbed. The forest authorities may not have had the capacity to prevent the logging physically, and firms may not have been prosecuted because they have ties to political levels.<sup>12</sup> Industry insiders point out that there is severe deviation in some countries between how licences should be awarded according to law and how they are actually awarded.

---

<sup>11</sup> See Saphores et al. (2005) for discussion about various auction systems and experiences from Romania.

<sup>12</sup> See World Resources Institute (2000) for cases in Cambodia.

### Hidden violation of the rules

Independently of the award system, there are many ways of manipulating the procedures to make it look as if they have been respected, when in fact one firm is selected unfairly. There is significant risk of tacit collusion between firms, and also in cooperation with government representatives, in many countries, and the risk increases in the levels of corruption (Søreide, 2006a). However, the most common way of conducting some form of hidden manipulation of the system is probably by violating the rules of communication and information.

Confidential information can be a target of bribery in most industries, and is particularly relevant when it comes to evaluation criteria, control mechanism and competitors' bids. The pre-qualification process can also be influenced, for instance by reducing the spread of tender invitations, announcing the tender very late, or determining the criteria for pre-qualification so that the strongest competitors are prevented from participating in the tender. Similarly, the criteria for awarding a concession may sometimes be adjusted to fit with the qualifications of one specific firm.<sup>13</sup>

The criteria for awarding the concessions and regulatory authorities' opportunities to influence them are essential to understanding the risk of corruption in these procedures. According to one of the persons interviewed for this study, the lack of openness about the criteria behind the selection of logging companies is one of the main openings for corruption in the forest industry.

In general, the higher the degree of discretionary authority in the system, the more opportunities there are for firms to exert influence through corruption, since those with discretionary authority can more easily recommend the qualities offered by a specific firm, the briber. A challenge for governments is to set the right balance, since less discretion implies a need for more detailed regulation. A simplification of rules, however, will often result in more discretion.

### Misuse of legal deviations from the rules

The award of timber licences can be manipulated by exploiting opportunities for legal deviation from the ordinary procedures. Many forest areas, and hence concessions, will be unique in some way, and there will often be opportunities to suggest special treatment and deviation from common rules. If not environmental concerns, the justification may refer to the cost of delaying the project, employment issues, good experience with one of the interested firms, etc. Special treatment will often imply justifications for direct negotiations between the authorities and one single firm, and this firm's opportunities to bargain on its terms of logging will be much stronger than in awards based on competition.

Special treatment will also be the case under *unsolicited proposals*, when the decision about logging in an area is spurred by a firm, and not initiated by the government, landowners or district politicians. The firm's proposal may include many important aspects of forest utilisation, such as revenue systems, environmental concerns, employment of a local workforce, and financing of roads. In addition, it will often be linked to the construction or operation of a major wood processing plant, which can have important externalities in the local community. Due to the many benefits it offers, the company submitting the proposal will often claim exclusive negotiations, so that the tender rules are set aside altogether. The claim is also based on the fact that the firm has developed the total idea, or cost efficiency. The award procedures of most countries authorise bilateral negotiations under such conditions. This is reasonable in many cases and necessary to attract private investors, yet it is important in these cases to pay particular attention to the balance between environmental sustainability, various welfare concerns, and the commercial benefits.

---

<sup>13</sup> For more information about hidden violations of the procedures, see Moody-Stuart (1997), Della Porta and Vannucci (1999); Søreide (2006b), and Rose-Ackerman (1999).

## Political influence on the forest authorities

In addition to firms' influence on selection procedures, the forest authorities may also encounter strong pressure from political levels. This may appear inconsistent since it will usually imply a pressure from the political level to deviate from the rules and principles established or supported by the (same) ruling political regime. This inconsistency can be explained by populist decisions, lack of understanding of forest governance, revenues to a ruling party, or benefits to representatives of political elites. Politicians may for instance have ownership shares in the sector, receive revenues from lobby groups or clear-cut bribes. The failure to respect established forest management plans in Cambodia represents one of many examples of forest corruption at the political level. In Cambodia, however, the government was claimed to deliberately facilitate logging outside a reformed regulatory framework in order to let representatives of the political elite profit personally, and the concession system was described as "a total system failure" (Davis, 2004).

In general, the problem of political pressure on the concession system occurs when it is decided at political levels that administrative rules on regulatory governance shall not be respected. The pressure will sometimes appear as an ad hoc response (for instance to pressure groups) and arise late in the concessions process, when information about the interested firms is also present. This form of 'delayed political influence' will usually be justified on the basis of some weighty concern, such as the importance of international competition on prices, the importance of protecting local industry, environmental considerations and sustainability, protection of vulnerable groups, etc. The concerns are often legitimate. The problem related to corruption, however, is that this form of justified pressure is also a way of hiding secret ties between the representatives of the private sector and one or more politicians with sector oversight responsibility or a political party.

In large contracts, the pressure from political levels may also be triggered by foreign governments that wish to secure industrial benefits for their "own" firms. This pressure may be connected to diplomatic discussions, for instance on trade, aid, defence or voting in international organisations, such as the UN or EU. The presence of different forms of political and diplomatic influence on tender procedures does not appear to have declined, in spite of the last decade's intensive anti-corruption agenda – often from the same governments that make the most out of the opportunities for such benefits.<sup>14</sup>

In order to prevent misuse of political authority in this respect, it is – first of all – important to build understanding and consensus on how the results of political pressure may resemble favouritism and cause unfair competition. In addition, it is critically important that all concerns and selection criteria are described in a forest management plan which is developed prior to the selection of firms. And these concerns should be ranked.

## 2.4 Operation of concessions

Forest crime may occur in many different ways, as mentioned, and only a few varieties are directly connected with the design and functioning of the concession system. There are, however, three aspects that are highly relevant: the consequences of violated concession terms; renegotiation of terms; and renewal of concessions.

### Violated concession terms

The terms in the concession contracts can be violated in many different ways, and corruption may facilitate the offences, for instance through collusion with officials engaged in the monitoring of operations, or by offering bribes to avoid sanctions if detected and prosecuted.

---

<sup>14</sup> See Transparency International's Bribe Payers Index, on political/diplomatic pressure.

Some examples of violations of concession terms are:

- Extracting more timber than authorised
- Logging in prohibited areas such as steep slopes, riverbanks and water catchments
- Logging protected species, in protected areas, or outside the concession boundaries
- Girdling or ring-barking, to kill trees so that they can be legally logged
- Duplication of logging licences
- Misreporting of the volumes logged and hence the basis for revenue collection<sup>15</sup>

Private firms can face similar challenges with corruption in the sector, for instance if they manage the forest area while they allow other firms actually to conduct the logging. It should thus be noted that violations can be similar when they relate both to private-private corruption or corruption involving civil servants (see Box 1 for a typology of corruption).

The lack of systematic information about corruption in the forest industry makes it difficult to tell what types of firms are most frequently involved in corruption and the abuse of concession-based regulations. Large firms have more contact with higher political levels and may influence the forest management through political corruption or lobbying. However, these firms are also more exposed to international control mechanisms, NGO watchdogs, stock exchange requirements, and certificate arrangements. Small firms, on the other hand, can be more able to carry out illegal logging of valuable endangered tropical woods.<sup>16</sup>

### Renegotiation of concessions

The role as the concessionaire of a large forest area with responsibility for the management, protection and utilisation of the forest provides the firm with exclusive ties to the client government. The concession contracts may have been awarded through competitive bidding procedures. A common characteristic of these contracts, however, is an opportunity to renegotiate the terms after the contract has been awarded and the operation of the concession has started.

In a survey of Latin American infrastructure concessions, Guasch (2004) finds that 46% of contracts awarded through competitive bidding have been renegotiated, compared to only 8% of contracts awarded through bilateral negotiations. Guasch explains this striking difference by referring to the many reasons why bilateral negotiations allow the operator to extract more favourable concession terms. The opportunity to alter the contract post tender obviously reduces the benefits of competitive bidding. It reduces thereby the value of welfare considerations behind the contract, while increasing the opportunities for firms to increase profits. If bidders believe, or perhaps know, that renegotiation will be feasible, they will adjust their proposal accordingly. The formalities in the tender procedure appear satisfactory, while in reality the commercial interests have too much influence over the utilisation of the forest.

It is critically important to clarify the opportunities for renegotiation in the concession system, and erect barriers to opportunistic renegotiation, for instance by a system where claims for renegotiation are reviewed as transparently as possible. In addition, it should be noted that renegotiation of the original terms of forest concessions might be seen as needed due to new knowledge about conditions for sustainable harvesting or as part of regulatory reform in the sector. For instance, Papua New

---

<sup>15</sup> Contreras-Hermosilla (2002) is the source of this information and provides a wider discussion about forest crime.

<sup>16</sup> See International Tropical Timber Organisation for information about the prices of various types of timber per m<sup>3</sup>: [www.itto.or.jp/](http://www.itto.or.jp/)

Guinea faced significant opposition from the forest industry when trying to bring existing concessions in line with new legal requirements established to ensure sustainability (FAO, 1997).

### Renewal of the concession

Performance-based renewal conditions combined with frequent inspection are important to protecting forest values, particularly in tropical areas. The opportunities to draw benefits from market mechanisms depend on the presence of competitors and fair award of concessions. At the same time, however, it is also important that sustainable logging and proper management of the forests are rewarded with renewal of concessions, without being required to compete on equal terms in tenders for the concession. This is a balance that can be difficult to achieve. The risk of corruption is primarily related to unwarranted renewals of concessions, despite poor management of the forest area, for instance, or violations of the concession terms, environmental damage, and misreporting of the logging.

## 3 Discussion and policy recommendations

The last decade's anti-corruption agenda has been very important in establishing a common understanding of how corruption might hamper economic development. In addition to a far stronger awareness of corruption-related challenges in general, this agenda has resulted in better legal tools to control corruption, in terms of better administrative rules in many developing countries, stronger penal codes and a better basis for cooperation through international conventions. This trend has also made a significant impact in the forest sector, where industrial logging in developing countries is increasingly regulated through well-developed concessions systems and based on a comprehensive forest management policy. The development towards more sustainable and rewarding forest policies has been strongly pushed and supported by international NGOs and research institutions, such as Greenpeace, Global Witness and the Natural Resources Institute, to mention just a few, and the international community, represented by the UN and the World Bank.<sup>17</sup>

The development towards better formal procedures in the sector, such as better forest administration, concession systems and independent monitoring, has probably had an influence on the way forest crime is being carried out. Incentives for forest crime remain, and there is also a constant risk that commercial interests may gain too much ground, at the costs of welfare, government revenues and forest protection. Despite the very promising development towards better formal systems, these problems will continue to some extent – whatever we do to improve the routines.

However, more regulation of the sector combined with more capacity in the workforce will probably alter crime patterns towards a more sophisticated manipulation of formal administrative procedures. This paper has therefore emphasised the importance of considering the risk of corruption in concession systems, since this form of crime usually occurs secretly, and at the same time with a potential of having very adverse effects on the functioning of the forest protection systems and the government's revenue from the industry.

The concession systems in the forest industry are and will be exposed to manipulation, corruption, pre-selection, collusion, lack of monitoring, opportunistic renegotiation, and unjustified renewal of licences. The problems will be severe in some developing countries, and the consequences for revenue as well as the environment will be perceptible. The next section lists a number of policy strategies that might reduce the problems, and discusses to some extent their implementation. A major problem, however, is how to know where to start. How can and should we rank the many goals and strategies?

---

<sup>17</sup> The Forest Stewardship Council (FSC) certification scheme is a very important initiative pushed by the timber industry and NGOs and launched in 1993. The system included the inspection of forests to check that the management is meeting environmental, social and economic principles and legal obligations. It also has a means of tracking timber and associated products from certified forests. For more information, see <http://www.fscus.org>.

### 3.1 Principles and policies

There are numerous actions that can be taken to improve the performance of the forest sector, in individual countries and internationally. Even if we know that some actions are more important than others, it may be difficult to know what to prioritise. This paper offers no complete solution in this respect, just some thoughts for the ranking that has to be made.

#### Constitutional control

Political attention to environmental concerns and state revenues from the forest sector differs significantly across countries, despite vast international pressure for sustainability and improvement of the industry. Many governments are heavily engaged in ensuring sustainable utilisation of forests, and they are honest in their involvement. In some other countries, the main challenge for the forest sector is the lack of constitutional control over the government. Political decisions may thus be highly unpredictable, not very reliable in the long run, and also have adverse consequences for the environment. A first step in the ranking of strategies relates to the identification of political benevolence and true engagement, which is in itself a complex and difficult task. The outcome of this identification determines the next steps, since all strategies are more difficult once they fail to correspond with the true interests of the ruling regime. The greater the challenges at the political level, the more important the international initiatives, such as certificates and trade control, as well as the attitudes and actions of international timber firms with operations in the country.

#### Forest development plan

All countries with forest areas have some form of policy on forest utilisation. The quality and contents of this policy vary substantially. The plan should include all regulatory issues concerning forest utilisation, such as environmental protection, terms of logging and design of the concession system, non-timber utilisation, monitoring systems, etc. In addition, the values should, as far as possible and acceptable, be ranked, which means that governments will have to recognise that revenue and forest protection may be counter-forcing interests, and that they have to develop a strategy on what they wish to emphasise under what circumstance. Since each of the values is important per se, without clear principles for what to prioritise the forest management can more easily be manipulated by private interests or lobby groups. A detailed forest management plan with a ranking can hence be a tool also to reduce the consequences of corruption.

#### Competition

For governments, it may be very difficult to draw the line between initiatives to spur competition in the sector, on the one hand, and those with the intention of attracting private sector investments and developing a fruitful relationship with individual firms, on the other. This challenge is relevant from an anti-corruption perspective too, since the main objective of business corruption is to ensure some form of unfair competitive advantage. The design of a strategy to ensure fair competition in the sector, and at the same time to draw benefits of private sector competence in forest management, is critically important to reducing opportunities for corruption in the forest sector.

In an optimal world, this strategy should be developed in cooperation between forest governance and domestic competition authorities. In real life, forest authorities are dramatically under-resourced in many developing countries, while competition authorities are, however, close to non-existent or in a poor state. Anti-corruption and institution building to improve the forest sector should not just focus on forest management alone; competition authorities can be critically important too.

## Enforcement

Concession systems and administrative reform will obviously need to be followed up with monitoring efforts, enforcement and credible sanctionability. This is a goal in most countries, and yet a difficult challenge that requires constant attention and unlimited resources. However, the idea of corruption control is often restricted to the possible detection of actual offences, and thus directed towards some form of control of procedure. This approach is too narrow in many cases, since corruption can be very difficult to detect and to prove, and will often occur in the forms of grey zone variations. Corruption control should hence be more focused on the identification of *opportunities* for corruption, because the adverse welfare effects of corruption materialise in the form of consequences that are not directly linked to the transfer of a bribe. The problem of corruption is not just that someone unfairly obtains a personal financial benefit, but rather that it is determined by the inefficiencies that are introduced into the economic system. The identification and sanctioning of individual bribery cases can be important in setting an example and increasing agents' perception of the credibility of sanctions. Attention to the ways in which inefficiencies may possibly be introduced can also be very rewarding from an anti-corruption perspective, however.

### **Box 2: Forest Law Enforcement, Governance and Trade (FLEGT)**

The Forest Law Enforcement and Trade (FLEGT) Action Plan is the European Union's response to the problem of illegal logging and the associated trade in timber products. It was adopted by the European Commission in May 2003.

The main components of this Action Plan, which is seen as offering a new approach to the problem of illegal logging, are the following:

- strengthening governance and capacity building in timber-producing countries.
- strengthening enforcement by improving co-ordination between forest regulators, police, customs and the judiciary.
- cooperating with the private sector on how to reduce opportunities to sell illegally logged timber.
- promoting public procurement policies and encouraging transparency through accurate information on forest ownership, concession systems and licences, and legislation.

One of the persons interviewed for the study made a comment on this initiative:

"It [the FLEGT Action Plan] shows the way forward in a holistic way, which means that it envisages a wide range of measures in order to combat illegal logging. Though focusing on the improvement of governance structures the FLEGT Action Plan as well helps to build private sector capacity in producer countries. Thus, FLEGT not just seeks protection of forest resources but strengthens governance and institutions of partner countries which has positive effects beyond the forest sector. There lies an added value: the initiative shows that the reform of the system of management of natural resources can have positive governance effects on the state and not just sector level. On the other hand it includes the demand side as well, recognizing its part and responsibility in the destruction of forests. Via Voluntary Partnership Agreements and a Legality Assurance System FLEGT seeks to employ legal and economic mechanisms to protect forest resources. In this respect it may become a useful instrument in the fight against corruption. The fight against corruption usually to a great extent depends on law enforcement, which is the result of the strengthening of institutions and does clearly not stand at its beginning. In this, the creation of a new market for legal timber which is verified via a FLEGT license represents an important contribution. FLEGT thus not only strengthens sustainable forest management but as well the creation of an environment conducive to the fight against corruption."

## 3.2 Recommendations

In addition to the above discussion, there are many other aspects to include in a strategy to improve the regulation of industrial logging. This section lists a number of policy recommendations that appear particularly important to reducing the risk of corruption in forest concessions, and discusses how the donor community might assist developing countries in this respect. However, before taking action in the form of new initiatives, donor agencies should investigate the need and opportunities to support current international programmes.<sup>18</sup> Many initiatives are very important and well developed, but still lack sufficient funding to fulfil their objectives.

### List of recommendations

#### *Analyse the situation*

The problem of forest corruption will be different in each single country, and a targeted strategy will require separate analysis of the circumstances. It is critically important to identify true attitudes at political levels, centrally as well as in the districts.

#### *Inter-institutional dependencies*

The function of forest management and regulation depends on other institutions in the country, and strategies will have to include the most important inter-institutional dependencies, with the legal system, trade regulation and competition, revenue and local government authorities, for instance.

#### *Forest management*

A well-developed forest management plan is indispensable for the proper governance of the sector. The various values deriving from utilising the sectors will have to be ranked, as far as possible, to offer a guideline for the management of the forest. The concession system should be designed to ensure important revenues from the sector, while also protecting non-timber values and environmental concerns. Governments should cooperate with foreign competence centres if their own capacity to design a forest management plan is weak.

#### *Conditionality*

Donor agencies should consider offering aid on condition of the development of a forest management plan and reliable monitoring and enforcement systems. The management plan should be comprehensive and detailed, and developed in cooperation with competence centres domestically or abroad. A reliable enforcement system includes realistic opportunities to stop illegal logging physically.

#### *Learning from developed country systems*

Better functioning systems in developed countries can serve as models that can be applied in developing countries as well. However, the functioning of the system will often depend on institutional history, the quality of institutions in general, sufficient enforcement capacities, and whether it is designed to fit with a certain form of forestry. Hence, the same set of bureaucratic procedures may work differently in different countries.<sup>19</sup>

---

<sup>18</sup> Transparency International's Forest Integrity Network lists a number of Forest Organisations that focus on corruption and forestry in various countries: <http://www.forestintegrity.org/links.html>

<sup>19</sup> The opportunity to draw benefits from new technology to monitor forestry and improve bureaucracy, will also depend on institutional factors and GDP levels, see Bird and Thiel (2007) for discussion.

### *Concession design*

Short-term contracts where renewal is to be expected and yet dependent on performance reviews with transparent criteria are often preferable to long-term contracts with fewer renewal decisions. Concession fees should be applied to increase state revenues from the industry and also to provide operators with incentives to protect several forms of forest value, not only timber production.

### *Transparency*

The concession system should be open to public scrutiny, and it is particularly important to be open about the criteria behind the award of concessions. Databases with all information about tender participants, prices, royalties, conditions, concession period and area, etc. should be established and kept updated. This is critically important to strengthening the role of stakeholders, NGOs, local communities and the media in the control of the sector. In addition to building trust and commitment, the government should encourage independent forest monitoring systems (Global Witness, 2005).

### *Firms as whistleblowers*

Firms in the sector are often the first to understand that forest corruption has taken place. Their incentives to speak out about the problem are sometimes weak, and it is important to establish channels for sensitive information.

### *Autonomous forest authorities*

In theory, the concept of independent monitoring systems is a solution. In practice, however, this concept depends on political benevolence, and tends to function as expected mainly when it is less needed. There is little help in making forest authorities independent of political levels if these levels are unlikely to respect the rules about such independence. And when there is no doubt about political accountability, there is no reason why the forest management should not be part of the bureaucracy. Hence, it is important to have rules to control political interference, but the regulatory institutions do not necessarily have to be independent.

### *Competition authorities*

To the extent possible, competition authorities should be asked to advise on balances between competition issues and good cooperation between individual firms. If these institutions are too weak domestically, the advice should be requested from alternative competence centres (academic institutions or foreign competition authorities, for instance). Unfair competition is the consequence of business corruption, and the role of competition authorities in identifying competition problems in the forest industry should not be ignored.

## References

- Aidt, T. S. (2003) Economic Analysis of corruption: A survey. *The Economic Journal*, 113:632-52.
- Amacher, G. S. (2006), "Editorial. Corruption: A challenge for economists interested in forest policy design", *Journal of Forest Economics*, 12, 85-89
- Amariei, L. (2004) *Capacity Building for Law Compliance in the Forest Sector Case study: Cambodia*, report prepared for FAO/ITTO. International Tropical Timber Organization.
- Batra, G., D. Kaufmann, A.H.W. Stone (2003) *Investment climate around the world: Voices of the firms from the World Business Environment Survey*. The International Bank for Reconstruction and Development/ The World Bank, Washington, D.C.
- Bird, N. and H. Thiel (2007) "New technologies in support of improved forest governance: factors influencing success." VERIFOR Briefing Paper feb 2007, Overseas Development Institute (ODI, London, UK.
- Contreras-Hermosilla, A. (2002), Law compliance in the forestry sector, WBI working papers 28617, Washington D.C.: World Bank Institute
- Crampes, C. and A. Estache (1997) "Regulatory tradeoffs in designing concession contracts for infrastructure networks." Policy Research Working Paper 1854, The World Bank, Washington D.C.
- Davis, M. (2004) 'World Bank caves in on forestry reform' *Phnom Penh Post*, Issue 13/01, Jan.2-15.
- Della Porta, D. and A. Vanucci (1999) *Corrupt Exchange: Actors, resources, and mechanisms of political corruption*. Walter de Gruyter.
- Environmental Investigation Agency (2003) *Above the law: corruption, collusion, nepotism, and the fate of Indonesia's forests*, Environmental Investigation Agency and Telapak. [www.eia-international.org](http://www.eia-international.org) and [www.telapak.org](http://www.telapak.org)
- Erdenechuluun, T. (2006) *Wood supply in Mongolia: the legal and illegal economies*. Mongolia Discussion Papers, East Asia and Pacific Environment and Social Development Department. World Bank, Washington D.C.
- FAO (1997) Asia-Pacific Forestry Sector Outlook Study: Country Report - Papua New Guinea, Food and Agriculture Organization of the United Nations, Working Paper No: APFSOS/WP/47. Forestry Policy and Planning Division, Rome.
- Forest Trends (2006), Logging, Legality, and Livelihoods in Papua New Guinea. Synthesis of Official Assessments in the Large Scale Logging Industry, Washington: Forest Trends. <http://www.forest-trends.org/documents/png/index.php>
- Four Corners (2002) *The Timber Mafia*. TV production with ABC TV, Australia.
- Global Witness (2005) *A guide to independent forest monitoring*, Report by Independent Forest Monitoring, Global Witness, UK.
- Gray, J. A. (2002), Forest concession policies and revenue systems: Country experience and policy changes for sustainable tropical forestry, World Bank technical paper no. 522, Washington D.C.: World Bank.
- Greenpeace (2007) *Carving up the Congo*. Report by Greenpeace International.
- Guasch, J.L. (2004), *Granting and renegotiating infrastructure concessions: doing it right*, Washington, DC: The International Bank for Reconstruction and Development/ the World Bank.

- Hembery, R., A. Jenkins, G. White and B. Richards (2007) *Illegal logging: Cut it out!* Report by World Wildlife Foundation (WWF), UK.
- Iversen, V., Chhetry, B., Francis, P., Gurung, M., Kafle, G., Pain, A. and Seeley, J. (2006), "High value forests, hidden economies and elite capture: Evidence from forest user groups in Nepal's Terai", *Ecological Economics*, 58, 93-107
- Kaufmann, D., A. Kraay and M. Mastruzzi (2006) *Governance Matters V: Aggregate and Individual Governance Indicators for 1996-2005*
- Kolstad, I. and T. Søreide (2007) *Corruption in natural resource management: an introduction for donors*. Mimeo (submitted for publication), Chr. Michelsen Institute (CMI).
- Lambsdorff, J.G. (2006) "Consequences and causes of corruption: What do we know from a cross-section of countries?" In Susan Rose-Ackerman (Ed), *The International Handbook on the Economics of Corruption*, Edward Elgar Publishing.
- Milledge, S.A.H., I.C. Gelvas and A. Ahrends (2007) *Forestry, governance and national development: Lessons learned from a logging boom in Southern Tanzania*. Report by TRAFFIC East/Southern Africa, Dar es Salaam, Tanzania.
- Moody-Stuart, G (1997) *How business bribes damage developing countries*. World View Publishing.
- Rose-Ackerman, S. (1999), *Corruption and government. Causes, consequences and reform*. Cambridge University Press.
- Rose-Ackerman, S. (2004) *The challenge of poor governance and corruption*. *Copenhagen Consensus Challenge Paper*, Copenhagen Consensus 2004.
- Rosser, A. (2006) *The Political Economy of the resource curse: a literature survey*, Institute of Development Studies at the University of Sussex, UK.
- Saphores, J., J.R. Vincent, V. Marochko, I. Abrudan, L. Bouriaud, C. Zinnes (2006) "Detecting collusion in timber auctions : an application to Romania." Policy Research Working Paper 4105. The World Bank, Washington D.C.
- Søreide (2006a) "Tender manipulation: large firms and infrastructure contracts", paper presented at the World Bank Annual Conference on Development Economics ABCDE, Tokyo, 29-30 May 2006.
- Søreide, T. (2006b) "Corruption in international business transactions: the perspective of Norwegian firms." In S. Rose-Ackerman: *Handbook of Economic Corruption* Edward Elgar Publishing.
- Transparency International (2002) *Bribe Payers' Survey*. Berlin: Transparency International. Transparency International, 2006
- Treisman, D. (2000) "The causes of corruption: a cross-national study", *Journal of Public Economics*, 76:399-45



## Abstract

The forest industry has the potential to contribute to the economy and increase state revenues in many developing countries. The realisation of these opportunities depends on the governance of the forest industry and the ways in which forests are managed. Donors can play an important role in this process by providing funding and other support to developing country governments. This U4 Issue paper discusses how corruption influences the logging industry and deprives developing country governments of important revenues. It explains the concession system in forestry and the risks of corruption in forest sector contracts. Some policy implications are drawn, suggesting a ranking of strategies, with a particular focus on aid-related implications. The paper is part of the project 'Corruption in Natural Resource Management' at the U4 Anti-Corruption Resource Centre: [www.U4.no](http://www.U4.no)