

# Forest law enforcement and rural livelihoods

D. KAIMOWITZ

Director General, Centre for International Forestry Research (CIFOR), PO Box 6596, JKPWB, Jakarta 10065, Indonesia

Email: d.kaimowitz@cgiar.org

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## INTRODUCTION

International concern about illegal forestry activities has grown markedly. Asian, African, and European governments have held high-level regional conferences on Forest Law Enforcement and Governance (FLEG). Indonesia has signed path-breaking Memoranda of Understanding on illegal logging with the United Kingdom, China, and Norway. The Convention on Biological Diversity, the United Nations Forum on Forests, the International Tropical Timber Organisation, and the G8 have all issued forceful statements, and incorporated the issue in their work plans. The European Commission has committed itself to formulating a European FLEG Action Plan. Japan and Indonesia have initiated an Asian Forest Partnership, with a major focus on illegal logging. Global Witness, the Environmental Investigation Agency, Transparency International, Greenpeace, Global Forest Watch, and Friends of the Earth have raised public awareness about the problem.

There are good reasons for concern. Illegal forestry activities deprive governments of billions of dollars in tax revenues. They also cause environmental damage and threaten forests, which many people depend on. Forest-related corruption and widespread violation of forestry laws undermines the rule of law, discourages legitimate investment, and gives the wealthy and powerful unfair advantages, due to their contacts and ability to pay large bribes. Money generated from illegal forestry activities has even been used to finance armed conflict.

Nonetheless, greater enforcement of forestry and conservation laws also have the potential to negatively affect rural livelihoods. That is because:

- Existing legislation often prohibits forestry activities such as small-scale timber production, fuelwood collection, and hunting that millions of poor rural households depend on.
- Most small farmers, indigenous people and local communities are ill equipped to do the paperwork required to engage in forestry activities legally or to obtain the technical assistance needed to prepare management plans.
- Millions of rural households live on lands that governments have classified as state-owned forestland or protected areas, and existing laws often consider them encroachers even though their families may have lived there for generations.

- Forestry and wildlife departments generally enforce forestry and protected area legislation more vigorously and with less respect for due process and human rights when poor people are involved.
- In some countries, forestry and wildlife officials engage in illegal activities that harm the poor. Measures that empower these officials and give them more resources could make it easier for them to act with impunity.

The magnitude of these risks varies greatly from country to country. Some countries have little interest or capacity to enforce their forestry and conservation laws and the increased international attention to forest law enforcement will probably not change that. Others focus their regulatory efforts almost exclusively on curtailing abuses by large logging companies, which is less likely to have major negative effects on rural livelihoods. But there are many countries where existing efforts to enforce forestry and conservation laws already have significant negative impacts on rural livelihoods. In those cases greater law enforcement efforts might make the problem worse.

This paper addresses complex and difficult problems. In many cases attempts to solve one set of problems will create others. Policies that work well in one location may have unanticipated or disastrous consequences in others. Clearly there are situations where the positive benefits from enforcing forestry and conservation laws outweigh the negative impact this may have on livelihoods, so governments and communities sometimes need to take measures that restrict the options of poor rural households. Similarly, it would be unwise to be naïve about how easy it is to get communities themselves to effectively regulate the use of forests. Still, there are good reasons to question many of the existing and proposed efforts to regulate forests, and to take steps to ensure that regulations do not simply justify wealthy and powerful groups gaining a monopoly on access to forest resources, rather than protecting the resource.

Even though the paper illustrates its arguments with examples, the author has no desire to single out or criticise specific countries or individuals. The examples used happen to be ones the author had information on. Some are out of date. In other cases the author cannot fully verify the accuracy of the information taken from published sources. Thus, it is important that the reader focus on the broad issues the paper raises and not the examples as such. The examples have only been included to demonstrate that the

arguments have an empirical basis and are not simply conjecture.

## FORESTRY AND RURAL LIVELIHOODS

According to the UK's Department for International Development (DFID 2001). 'A livelihood comprises the capabilities, assets, and activities required for a means of living'. It is considered that someone has a better livelihood if he or she:

- has a higher *income*,
- receives more *government services*,
- has their *physical security* respected,
- has better *health*,
- has adequate *food*,
- is less *vulnerable* to changes in markets or their environment,
- relies on natural resources that are *managed* sustainably,
- can *participate* in political processes, and
- can maintain their *cultural heritage* and self-esteem.

These criteria link up with the discussion about forest law enforcement and rural livelihoods in the following ways:

- *Income*: in the context of forestry activities, higher incomes for low-income rural households can come from small-scale forest-based activities or wage labour.
- *Government services*: taxes revenues from forestry can finance government services for the rural poor.
- *Physical security*: respecting forest users' physical security implies not physically mistreating them or imprisoning them without adequate due process.
- *Food, health, and vulnerability*: poor rural households with access to wild meat, vegetables, fruits, and medicinal plants and animals are likely to have better food security and health. This is especially crucial in situations where families have already exhausted the food from their last harvest and in periods of economic crisis, war, or crop failure.
- *Sustainable natural resource management*: if people use forest resources sustainably rural families should be able to maintain the benefits forests provide over time.
- *Participation and cultural heritage*: governments and other groups can enfranchise low-income forest-dependent people politically, protect their cultural heritage and legal rights, and encourage their self-esteem by providing institutional mechanisms for participation in decision-making and respecting their rights, cultures and opinions.

DFID's livelihood approach also postulates that people with more natural, physical, financial, human, and social capital generally have better livelihoods. In the context of this paper, natural and social capital merit the greatest attention. One might expect poor rural households to live better if they have secure access to forest resources and if they have effective and efficient social mechanisms to regulate forest use, manage their forests and distribute the benefits.<sup>1</sup>

Given the above, this paper assumes forest law enforcement policies favour the forests' contributions to rural livelihoods if they:<sup>2</sup>

1. increase the amount of forest products poor rural households can sell and the prices they receive,
2. increase wage labour in forestry and the salaries forestry workers earn,
3. increase tax revenues from forestry companies,
4. decrease the number of poor rural people physically mistreated, forced to pay bribes, or inappropriately arrested or fined<sup>3</sup>,
5. increase poor rural household's access to forest resources and make it more secure, including access by women,
6. help maintain the long-term supply of forest products and services poor households use,
7. promote poor people's participation in decision-making and collective action, and
8. respect poor household's rights, cultures and traditions.

## NEGATIVE IMPACTS OF ILLEGAL FORESTRY ACTIVITIES ON RURAL LIVELIHOODS

Illegal forestry activities often negatively affect rural livelihoods. Indeed, that is the main reason development agencies whose primary mission is poverty alleviation have become increasingly concerned about the problem.

### Lost income from forest products

Situations of widespread corruption and disrespect for the rule of law typically favour groups that have sufficient resources to pay bribes, develop informal links with government officials, and hire armed guards (World Bank 1997). This puts households that engage in small-scale forestry activities at a clear disadvantage. Often they can only operate if they agree to sell their products to wealthier 'patrons' who protect them from forestry officials and provide credit.<sup>4,5</sup> These patrons' assistance comes at a high price. They pay producers much less than they would receive

<sup>1</sup> The concept of social capital is justifiably controversial. As used in the context of this paper the concept is synonymous with the local institutional capacity to regulate and manage forest resources effectively, efficiently, and equitably.

<sup>2</sup> One could also argue that policies favouring economic growth contribute to rural livelihoods. This paper occasionally refers to the impact of policies on growth.

<sup>3</sup> For purposes of this paper, an arrest or fine is considered 'inappropriate' if it 1) does not contribute to sustainable forest management, 2) does not follow due process, or 3) results from laws or law enforcement practices that discriminate in favour of wealthier or more powerful groups.

<sup>4</sup> Private banks, NGOs, and government credit agencies generally will not lend money to independent small-scale foresters, in part because of concerns about the legality of such activities.

<sup>5</sup> Obidzinski (2003) documents in great detail how such patronage networks operate in East Kalimantan in Indonesia and how they affect the distribution of benefits.

if they could borrow from formal lending agencies and sell their products legally to whomever they wanted to.

### Lost job opportunities

Illegal logging may generate employment in the short-term but in the longer term it can contribute to the depletion of timber resources and the subsequent collapse of forest industries. This has already happened in several West African and South East Asian nations, and could well happen in others such as Cambodia and Indonesia.

### Less government revenue

Every year developing country governments lose billions of dollars in revenues due to illegal tax evasion in the forestry sector and unauthorised timber harvesting in publicly owned forests.<sup>6</sup> This leaves governments less money to spend on services such as health, education, roads, electricity, and agricultural extension. Lack of transparency in government budgets in countries with widespread corruption makes it less likely that whatever funds governments do receive will go to services for the poor. Weak rule of law and corruption also limit long-term economic growth, which further reduces tax revenues (Thomas *et al.* 2000).

### Threats to physical security

When local people complain about illegal forestry activities the implicated parties often respond with threats or even violence. In addition, corrupt government officials sometimes take action against local people to protect their interests or those of illegal loggers and poachers.

### Loss of access to forest resources

In heavily corrupted systems the only way to get access to forest resources may be through bribes and connections. People who are unwilling or unable to use those mechanisms cannot access forest resources or risk fine and arrest by accessing them illegally. Without transparency in decision-making and a functioning system of legal due process poor rural households have little recourse when government officials or private companies and individuals illegally deny them access to forest resources.

### Forest loss and degradation

Illegal forest clearing, poaching, and failure to respect timber-harvesting regulations can deplete the natural resources poor rural households rely on such as wild fruits and vegetables, bush meat, medicinal plants, fuelwood, and timber. Illegal forestry activities can also negatively affect environmental services important to poor rural households such as the provision of clear water, pest and disease control, pollination, and regulation of the climate, stream flow, and groundwater levels.

#### BOX 1 *Illegal logging and social capital in Sumatra, Indonesia*

Communities in northern Aceh in Sumatra traditionally regulated their forests without any need for outside intervention. Customary authorities kept people from logging near rivers and in the upper watersheds and charged fees to outside loggers, which they used for local development.

In the early 1990s, collusion between local officials and entrepreneurs involved in illegal forestry operations undermined that system. The local police, army, forestry, and district officials allowed anyone who wanted to log, transport wood, or operate a sawmill to do so as long as they paid monthly informal payments and gave small sums of money to police and army officials who checked the permits of logging trucks at posts along the road. Those that paid bribes received permits and protection from harassment in return. Any one trying to operate legally found it too expensive and time consuming, and faced problems with local officials. Local tax collectors pocketed most forestry taxes, passing only a small portion to the official government coffers.

Groups engaged in illegal logging paid off village heads or gave them a share of the business. That caused conflicts within the villages. Some villagers permitted illegal logging because they realised it was futile to try to stop it since it had the backing of the local authorities. Others ended up working for the illegal loggers and pressuring their village heads to let the activity continue. That greatly undermined traditional village forest management.

Source: McCarthy 2000

### Political disenfranchisement and loss of social capital

Corruption and lack of respect for the rule of law subverts the democratic process. Elected public officials lose influence or fail to represent the interests of those that elected them, while small elite groups can use bribery and private business associations with government officials to influence policies in their favour (Contreras-Hermosilla 2002). When individuals or groups within a community engage in illegal forestry activities or support others involved in such activities that may create discord and undermine pre-existing mechanisms for regulating the use of forest resources. Formal community forestry initiatives have difficulty competing with groups that operate illegally, since the latter can sell their products cheaper because they don't pay taxes, prepare management plans or devote resources to paper work. Ironically, formal community forestry groups often find it more difficult to get government permits than illegal operators do because they are less able or willing to pay bribes to obtain them.

<sup>6</sup> Contreras-Hermosilla (2002) estimates the total annual loss from such illegal activities as being at least \$10 billion dollars each year. That figure includes developed and transition countries as well as developing countries.

## NEGATIVE LIVELIHOOD IMPACTS OF FOREST LAW ENFORCEMENT

Even though illegal forestry activities can be bad for rural livelihoods, so can enforcing the existing forestry laws, and doing it more effectively may make the problem even worse. This applies particularly to situations where legislation and/or law enforcement practices discriminate against poor rural households.

### Lost income from forest and agricultural products

Most small-scale commercial forestry activities in developing countries are illegal or have unclear status under existing laws. Those involved generally do not have permits or formal management plans and do not pay taxes, and they often work without permission in forests claimed by governments or large landholders.

A large but unknown number of people engage in informal forestry activities. Poschen (1997) calculated that fuelwood and charcoal activities employed something in the order of the equivalent of 13.3 million people full-time in the early 1990s; the vast majority of them outside the legal framework. No one knows how many villagers practice small-scale informal timber harvesting, but it is probably in the millions.

### BOX 2 *The informal sawnwood sector in Cameroon*

Small-scale informal wood processing with chainsaws and small mobile sawmills provides some 60% of the sawnwood used in Cameroon's two largest cities, Douala and Yaounde, as well as small quantities for other markets. Most of the wood comes from farmers' fields and community forests, not the official permanent forest estate. This activity causes little environmental damage and directly generates an estimated 3,000 permanent jobs. Nevertheless, in 1999 the Ministry of Environment and Forestry made it illegal. This apparently did not reduce the activity's scale, but greatly increased the bribes demanded by police, soldiers, forestry officials, and others.

Source: Plouvier *et al.* 2002.

The high transactions costs associated with operating legally are a major factor that typically confines small-scale commercial forestry to the informal sector. Existing laws and regulations require extensive paper work, payments, and visits to government offices. Professional foresters must sign certain papers and the offices that process those papers are typically far away. When low-income people go there the officials they need to talk to may be away or unwilling to receive them. It frequently takes a long time to get any response, and officials may send papers back several times for corrections.

Enforcing existing forestry laws sometimes reduces small-scale producers' incomes by discouraging them from engaging in forestry activities or forcing them to sell their products illegally for lower prices. It also increases their costs associated with avoiding detection and paying fines and bribes.

### BOX 3 *Red tape for small-scale producers in Brazil and Nicaragua*

The municipality of Paragominas in the eastern Brazilian Amazon has long been one of the country's main logging and wood processing areas. Nevertheless, the local forest service (IBAMA) office is not authorised to approve management plans or most licenses and forestry permits. Only the office in the state capital, Belem, several hours away, can do that.

Big logging companies usually hire representatives in Belem to handle their relations with IBAMA. These representatives visit IBAMA regularly and know the rules and officials well.

Small-scale loggers find it difficult and expensive to visit Belem. Even if they get there they have a hard time seeing officials and often discover they lack the proper documents or have filled them out incorrectly. As a result, they may have to stay in hotels for days or travel back and forth several times. Few manage to get through the system.

Similarly, for a small farmer in Nicaragua to sell a single tree he or she has planted requires several administrative steps and permits. But as one observer notes, 'Your typical farmer does not know anything about administrative procedures, has no telephone, lives far away from the urban centre where the government offices are, and cannot get mail delivered to their house. To do all the paperwork requires a huge effort and takes several days of work.'

Source: Brazil: Interviews by author with IBAMA officials in Paragominas, February 2001. Nicaragua: Nitlapán 2002, cited in Contreras 2003.

### Lost job opportunities

Restricting the activities of larger commercial forestry and agricultural operations may negatively affect rural livelihoods to the extent it limits employment opportunities for low-income rural people. This is most apparent in the case of logging bans where formal sector timber production and the associated jobs disappear completely. (See below).

### Threats to physical security

In some countries forestry officials and police inappropriately arrest low-income people for violating forestry and protected area legislation, forcibly expel them from their houses and fields, hit them, rape them or even kill them. Unless governments take measures to prevent this, attempts to encourage forest law enforcement could easily worsen this problem.

### Loss of access to forest resources

Many governments essentially tolerate poor families living in forestlands and protected areas claimed by the government, but there are also many cases where families

have been evicted from such areas, often forcibly.<sup>7</sup> If governments were to strictly apply existing forestry and conservation laws restricting poor rural households' access to forest resources that could have dramatically negative impacts on them.

**Forest loss and degradation**

In some instances enforcing or attempting to enforce existing forestry legislation may encourage forest destruction. This may occur because government law enforcement efforts undermine the existing community-based mechanisms for regulating forest use or because the law promotes tenure regimes and forestry practices that negatively affect forest conditions. This may be the case, for example, where the law favours large-scale industrial logging and the conversion of forests to agro-industrial plantations, but discourages small-scale low impact forestry activities.

**Political disenfranchisement and loss of social capital**

By considering the residency or livelihood activities of large numbers of rural people as illegal that essentially 'criminalises' those people and makes it easier to deny them

<sup>7</sup> One particularly complex and difficult example of this at present is that of India. The country's Supreme Court has ordered that by May 31st 2003 government officials should evict all of the families encroaching upon the country's reserve forestland. The author was unable to locate any reliable estimate of the number of people this might affect, however, it is clearly in the hundreds of thousands and might be even more (Sharma 2003).

**BOX 4** *The negative influence of forestry laws on community forests in Cameroon and Honduras*

In theory, Cameroon's 1994 Forestry Law permits communities to manage community forests. However, communities must submit a management plan before they start any activity. That is practically impossible for communities that lack the support of foreign donors and extremely difficult even for those which enjoy such support. In contrast, industrial loggers with 'ventes de coupes' are allowed to log areas of up to 2,400 ha without a management plan and companies can log for up to three years in forest concessions of up to 200,000 ha before they must submit a management plan.

Existing forestry laws and the way they are applied have also undermined community forests in Honduras. In 1977, the Honduran forestry department (COHDEFOR) helped to found the 'Honduran Regional Agroforestry Cooperative of Colon and Atlantida' (COATLAHL). The cooperative was supposed to assist 500 small foresters organised into to ten groups to do the paperwork required by the law and to market their timber. In recent years, COATLAHL has run into serious problems. Many members have found it more profitable to operate illegally. Forestry officials have tried to force the cooperative to pay bribes in order to transport their timber. Illegal loggers and wealthy coffee growers have shot at cooperative members to keep them out of certain forests. Instead of trying to help the cooperative overcome its problems, COHDEFOR has created additional administrative requirements the cooperative must meet. This along with some internal problems within COATLAHL has led most members to abandon the cooperative. At present, only 106 remain and some of them are no longer active. Meanwhile, illegal logging is thriving.

Source: Cameroon: WRM 2001. Honduras: Castillo 2002.

TABLE 1 *Threats to rural livelihoods from illegal forestry activities and from forest law enforcement*

	Illegal forestry activities	Forest law enforcement
Forest product income	Small foresters earn less because they pay bribes and depend on patrons.	Small foresters earn less because governments stop their 'illegal' activities or greater law enforcement leads them to have to pay higher bribes or depend more on patrons.
Wages from forestry	Over-harvesting makes the forestry sector collapse.	Government actions reduce logging.
Government revenues	Tax evasion and illegal logging in public forests lowers revenue.	Reduced logging due to law enforcement lowers revenue.
Physical security	Illegal loggers and corrupt officials threaten and attack villagers.	Officials inappropriately threaten, attack, arrest or expel villagers and destroy their crops and houses.
Access to forest resources	Wealthy groups and officials illegally deny access to forests and due process.	Wealthy groups and officials 'legally' deny access to forests and due process.
Long-term supply of forest goods and services that poor households use	Damage to forests by illegal logging reduces forest product supply and disrupts environmental services.	Damage to forests due to loss of social capital reduces forest product supply and disrupts environmental services.
Collective action and participation	Illegal logging undermines local forest management institutions. Bribes and influence peddling replace democratic process.	Laws that fail to recognise local forest management institutions undermine them and police action substitutes for dialogue.
Respect for cultures and tradition	Illegal logging undermines traditional institutions.	Laws that don't allow traditional practices or respect local institutions undermine peoples' traditional cultures.
Economic growth	Widespread failure to respect rule of law reduces investment and growth.	Limiting forestry activities reduces (short-term?) economic growth.

their political and legal rights and the opportunity to participate in decisions related to natural resource management. As noted above, trying to enforce laws that fail to recognise and build upon pre-existing 'informal' mechanisms to collectively regulate the use of forest resources may also undercut those mechanisms and make it more likely that forest resources will become essentially open access.

### **Lack of respect for local culture and traditions**

Many forestry and conservation laws fail to recognise indigenous and nomadic peoples' rights over the territories they have historically occupied and to take into account their traditional farming, hunting, fishing, grazing, and gathering practices. That makes it harder for many local people to maintain their traditional diets, health practices, and ways of life. One common example of this, particularly in Asia, are laws that prohibit swidden cultivation (also known as shifting cultivation or slash and burn cultivation). Swidden cultivation forms an integral part of the traditional practices of many peoples, and in many cases is the main livelihood option that people have available to them.

### **DOES LEGAL MEAN SUSTAINABLE?**

Discussions about forest law enforcement sometimes practically equate sustainable forest management with complying with forestry laws, but the two differ markedly. A large portion of forestry legislation focuses on administrative requirements, fees, taxes, and property rights, rather than on how forests are really managed. Some regulations actually encourage unsustainable management and some people that violate forestry laws manage forests sustainably.

Successfully enforcing laws that prohibit forest clearing, logging, hunting, and collecting vegetable products usually, although not always, directly helps to protect the forest resources involved, at least in the short run.<sup>8</sup> The situation is less straightforward when it comes to laws and regulations that specify annual allowable cuts, harvesting rotations, and minimum harvesting diameters. Enforcing these regulations usually will not suffice to sustain commercial timber production and environmental services over the long-term, and may even make things worse.<sup>9</sup> Many existing prescriptions for tropical forest management have a surprisingly weak scientific basis (Fredericksen 1998, Putz *et al.* 2000, Sist *et al.* 2001). Frequently they fail to take into account the regeneration requirements of commercial timber species and the role of animals in seed dispersal, pollination, and pest and disease control (Sheil and Van Heist 2000). Allowable cuts usually reflect political, economic, and administrative concerns as much as the biological capacity of a forest to sustain timber production. Most legally sanctioned approaches to designing forest management plans assume forest ecosystems are in a steady state, rather than being path dependent outcomes of

episodic disturbances. In principle, foresters are supposed to adapt management plans to the dynamic of each forest, but most foresters in developing countries lack the training and information required to do that, and forestry officials often will not accept the plans when they do.

In theory, having a formal management plan, getting it approved, implementing it, and tracking the timber harvested in accordance to what it prescribes form one coherent system. In reality, there is often little connection between what the plan says, having the required permits, and what happens in the forest. Having the paperwork in order, per se, says little about how a forest is managed, especially where forestry officials rarely visit the forest and/or sign the papers in return for bribes.

In summary, there is little doubt that enforcing some forest laws could encourage sustainable forest management. Nevertheless, the relation is less clear and direct than most people think. While effectively enforcing some forestry laws and regulations may have a positive effect, enforcing others may make things worse. In many instances enforcing the laws is unlikely to affect how forests are managed at all. A great deal of forestry laws and regulations that discriminate against small-scale farmers and foresters and local communities have no scientific basis for doing so. Nonetheless, proponents of such regulations typically justify such inequitable rules on environmental grounds.

### **THE EFFECTS ON RURAL LIVELIHOODS OF ENFORCING DIFFERENT FORESTRY AND CONSERVATION LAWS AND REGULATIONS**

#### **Logging bans and moratoriums**

Logging bans are simple. Once one bans all logging in a region or a country the authorities can safely assume any logging that continues must be illegal. Nonetheless, such bans have had only mixed success at reducing environmental destruction (Boyer 2000, FAO 2001). Few countries have the political will and capacity to stop all logging in the designated areas, in part because of political

<sup>8</sup> Nonetheless, there are situations where failure to log, hunt, or harvest plants can lead to ecological imbalances, fire hazards or other problems. One should also remember forests are not static. With or without further human disturbance they change over time.

<sup>9</sup> For example, regulations that encourage companies to avoid large canopy gaps may impede regeneration of major commercial timber species such as mahogany. There are also situations where it is less profitable to manage forests sustainably than to manage them unsustainably because of the high cost of preparing the required management plans and similar documents. For example, Davies (1998) has shown that the main reason it is not commercially viable for landowners in northern Costa Rica to promote the natural regeneration of secondary forest for timber production on abandoned pastures is because of the high costs of the associated paperwork the law requires.

pressure from the people the bans affect and the local governments that represent them.

Where logging bans have been implemented in places where many people depend on forestry activities for their livelihoods great hardship has resulted. China represents the clearest case, even though its government has made major efforts to compensate those most affected. Similar problems have arisen in several South East Asian countries, although there the governments have generally implemented the bans less effectively and the commercially valuable timber was already largely exhausted when the government imposed the bans.

#### **BOX 5** *The social impacts of China's logging ban*

In 1998, the Chinese Government banned logging of natural forests in the upper reaches of the Yangtze River and the middle and upper reaches of the Yellow River in an attempt to slow down environmental degradation. No reliable figures exist about how many forestry workers lost their jobs, but analysts initially estimated the ban would affect 1.1 million forestry workers. The government provided workers that lost their jobs with a lump sum severance pay equal to three times the average local wage. Those that cannot find new jobs receive unemployment benefits for up to three years. Some workers have found new jobs at higher wages with government assistance, but those with few skills and little experience have found it hard to find work. Small farmers are no longer able to harvest timber and fuelwood. Local and provincial tax revenues in the regions affected have declined and many social services such as education and health care, which were previously subsidised by state-owned forestry enterprises, have deteriorated since the enterprises stopped operation. As of 2001, the Chinese government was trying to design new measures to address these problems.

Source: Youxian 2001.

Partial logging bans sometimes deny access to timber to small-scale loggers and loggers that lack political connections, while giving access to others. In fact, some partial logging bans end up becoming little more than an excuse for ensuring that only those favoured by key individuals within the government can have access to the resource.

#### **Strict enforcement of all timber harvesting laws and regulations**

In many countries attempting to strictly enforce all existing forestry laws and regulations affecting timber harvesting would be tantamount to imposing a logging ban. The laws and regulations are so demanding that loggers would find it practically impossible to comply with them and still earn a profit, if indeed they could comply at all. There are simply too many requirements, they are too difficult and costly to meet, and some even contradict each other. Without bribes to avoid inspections and speed up the paperwork, the approval of plans and permits would slow down significantly. That implies that truly rigorous forest law

enforcement would put practically everyone engaged in forestry out of business, both in the formal and informal sectors.

As with logging bans, strictly enforcing all the existing forestry laws would have decidedly mixed effects on rural livelihoods. Under the unlikely assumption that governments were able to achieve this, there would be a lot less forest loss and degradation, but forestry workers and people engaged in small-scale forest-based activities would lose jobs and income. There would be very little forestry tax revenue. To get everyone to strictly obey all the laws and regulations might require repression. That could threaten households' physical security and undermine traditional mechanisms of forest management. Communities and poor rural households would lose access to forests where they currently live and work without legal recognition.

#### **Strict protection of conservation areas**

Creating strictly protected conservation areas is similar in many aspects to establishing a logging ban that applies only to one particular area. Completely prohibiting activities makes it easier to detect when a law has been violated. In this case the prohibitions may include clearing forest for agriculture, hunting, fishing, cattle grazing, and harvesting forest plants, as well as logging.<sup>10</sup> Focusing law enforcement efforts on protected areas has the advantage of allowing officials to concentrate on a limited number of compact geographic locations and permits them to devote their attention to laws that link directly to what happens in the forest, rather than to administrative requirements.

However, greater enforcement of existing restrictions associated with protected areas could easily deny many poor rural households of their incomes, access to forest resources, and ability to maintain their traditional customs and lifestyles and would be likely to lead to large numbers of arrests and human rights violations.

#### **Outcome oriented approaches to using forestry laws to improve commercial logging**

As noted above, many forestry regulations focus on aspects that have little direct relation to how people manage forests and what happens as a result (Bennett 1998). Recently, however, some international groups have emphasised enforcing those laws that most influence forest management and tax revenue. Rather than concentrating on whether logging companies meet all the multiple administrative requirements, they emphasise whether companies:

- have management plans based on serious forest inventories and only harvest logs specified in those plans;
- follow government restrictions concerning annual allowable cuts, minimum diameters, rotation periods, and conservation areas;

<sup>10</sup> Although not all categories of protected areas prohibit all of these activities.

- monitor and track each log from when it is harvested until it reaches its final destination; and
- pay all the mandated taxes and fees.

This approach has been designed largely for industrial logging companies, particularly those involved in export markets. There is still little practical experience with its implementation and limited data on its cost and effectiveness.

A priori it is difficult to predict how such an approach would affect rural livelihoods. That would depend largely on:

- how effectively the initiative was implemented and with what degree of fairness and transparency;
- if the initiative substantially improved how forests were managed or simply made sure that management was well documented;
- how the initiative affected the sector's profitability and harvest levels;
- the characteristics of the informal forestry sector and how law enforcement efforts affected it; and
- the extent to which the new system re-enforced and legitimised maintaining control over forest resources in the hands of large-scale logging companies, rather than local communities, indigenous people, and small-scale foresters and farmers.

### Cracking down on informal timber and fuelwood harvesting

As noted previously, millions of poor rural households engage in fuelwood, charcoal, and timber activities that are officially illegal or of uncertain legality, even though many countries allow families to harvest small amounts of forest products for their own consumption. Under normal circumstances, most countries make little effort to regulate these informal forestry activities. Local officials may sporadically make their presence felt, particularly when looking for bribes, but otherwise they turn a blind eye.<sup>11</sup>

However, to the extent that forestry officials *do* occasionally enforce some laws this usually harms rural livelihoods. Local people have to pay bribes, sell their products for lower prices, and face problems of intimidation and threats to their physical security. Formal government structures that contradict traditional mechanisms regulating forestry activities undermine the latter.

### DIFFERENCES ACROSS COUNTRIES AND CONTEXTS

Forest law enforcement efforts will affect rural livelihoods differently depending on the context. Key variables that influence these outcomes are the characteristics of the forestry:

- **sector** (e.g. size and characteristics of the forest itself, forest tenure, type of producers involved, product composition, market orientation, and types of links

between harvesters, processors, traders, lenders, and investors);

- **legislation** (e.g. who it assigns property rights to, how large a technical and administrative burden it presents, and to what extent it restricts small-scale forestry activities); and
- **institutions** responsible for law enforcement (e.g. their territorial presence, technical capacity, level of decentralisation, and degree of transparency, corruption, and respect for human rights).

Places rich in commercially valuable timber with large processing facilities attract regulators' interest since they are potential sources of tax revenues and informal payments. In such contexts, forestry legislation and institutions often help certain groups grab the resources at the expense of others (Ross 2001). Governments usually allocate large forestry concessions to private companies with strong political connections with little regard for rural livelihoods. This applies particularly to Central Africa and East Asia. Forestry laws in these contexts typically legitimise the more powerful and wealthy groups' monopoly over forest resources. Since governments already enforce these laws sufficiently to ensure that poor rural households have only limited access to commercial forest resources, greater law enforcement in the more commercially valuable areas would only really pose a threat to the rural poor if the government went after informal sector activities that are relatively marginal in terms of commercial timber production.

Indonesia represents a special case as a country with a large forestry sector where the national authorities and large forestry conglomerates have recently lost much of their control over forest resources. That has opened up many new opportunities for regional and local elites and in some cases local communities and poorer households, who operate in violation of what the national authorities consider the law (See Smith *et al.* this issue). To a certain extent the call for the 'restoration of law and order' in such circumstances represents a call for restoring the monopoly over forest resources by national public and private elites – and has uncertain impacts on rural livelihoods.

In China, India, Nepal, and several other Asian countries governments have traditionally given substantial attention to regulating forest use. These nations have large, powerful and deeply entrenched state bureaucracies with strong historical traditions and limited transparency and accountability. The countries are forest poor but large numbers of people rely heavily on forest resources. The potential risk to rural livelihoods from increased forest law enforcement may be greatest in such contexts since people depend heavily on forests and at times the governments have demonstrated both the will and capacity to take measures that limit access of poor households and ethnic minorities to those forests.

<sup>11</sup> This should be considered a hypothesis to be verified. There is practically no data on the extent or consequences of regulation of the informal forestry sector.



In most other countries, efforts to regulate forests have been more limited and sporadic. Forestry departments are heavily under-staffed and have little political power or influence. Forestry law enforcement efforts are unlikely to be effective, but by the same token are also less likely to have major negative impacts on rural livelihoods – although they may still make some producers' lives more difficult and increase the costs of engaging in small-scale forestry activities.

## POLICY OPTIONS

### Forestry law reform

One key element of ensuring that enforcing laws and regulations relating to forests does not harm rural livelihoods is to reform the laws and regulations so they discriminate less against low-income households, ethnic minorities, and women. Key elements include:

- Establishing simple and low cost mechanisms to formally recognise the rights of local communities and small-holders over forest resources they already manage, and allocate additional resources to them. This must include, among other things, appropriate mechanisms for resolving competing claims.
- Reducing the number of administrative and technical requirements, simplifying them, and allowing decisions about them to be made at the local level.
- Exempting small-scale activities from various technical and administrative requirements, including fees and taxes. (Additional measures may have to accompany this to ensure that wealthier actors do not abuse these exemptions).
- Improving financial sector and money laundering laws and regulations to encourage banks to conduct full due diligence before lending to large companies that may be involved in illegal forestry activities.
- Establishing clear and accessible legal mechanisms to allow people to seek redress for government decisions and actions that may have harmed them illegally.
- Empowering local community organisations to monitor compliance of forestry laws with support from government authorities.
- Guaranteeing full public availability and transparency of government information related to forest regulation.
- Ending prohibitions on swidden cultivation and on processing timber with chain saws and permitting rural households to engage in activities that form part of their cultural heritage.
- Formally recognising and implementing international laws, treaties and agreements that support the rights of indigenous peoples, ethnic minorities, and women.

### Institutional reform

Reforming laws and regulations will have limited impact unless one also reforms the institutions charged with

implementing them.<sup>12</sup> These institutions have to become more efficient and outcome oriented, less corrupt, more transparent and accountable, and more responsive to the needs of smallholders and local communities.

Experience shows that it is not easy to achieve this. Many government officials depend economically on formal and informal payments associated with the existing regulatory regimes. They may be reluctant to give up the authority associated with their discretionary ability to enforce or not enforce existing legislation, and the status associated with their supposed scientific understanding of how to manage forests. Working for wealthy and powerful forestry companies and farmers provides greater status and benefits than working for small farmers and foresters and indigenous people. Forestry officials have been trained and socialised under existing paradigms and many aspects of their institutional cultures re-enforce them.

Donor support for agencies and officials that take into account livelihood concerns can encourage reform in government forestry agencies. So can the appointment of reform-minded officials, the implementation of training programmes, sanctioning of corrupt officials, and the recruitment of younger and more idealistic forestry officials. As much as possible, it is important to try to make government officials feel part of the reform process and that they benefit from it, rather than feeling threatened by it.

Besides working with the government agencies, it is also important to strengthen civil society organisations that independently monitor government agencies and forestry companies, provide legal and technical assistance to communities and small holders, and promote multi-stakeholder dialogues and informal mechanisms for resolving conflicts. These organisations include NGOs, the mass media, professional associations, and grass-roots organisations. In addition to providing services directly, these organisations can encourage government agencies to be more accountable and transparent.

### Focusing on the biggest violators

One obvious suggestion for reducing the potential harm to rural livelihoods from forest law enforcement would be to concentrate enforcement efforts on the largest violators – especially those that provide limited employment. In some, but certainly not all, contexts these are also the groups responsible for the greatest amounts of forest destruction and most of the tax evasion.

### Enforcing laws that favour rural livelihoods

Some forest-related laws specifically favour poor rural households and ethnic minorities so those groups should benefit from their enforcement. For example, over the last

<sup>12</sup> This may be only partially true when it comes to legal reforms that limit the institutions' functions and authority.

few decades many governments in Latin America recognised indigenous people's rights over large territories, but indigenous people often find it difficult to protect those territories from encroachment by loggers, miners, and farmers. Greater efforts to protect the indigenous peoples' rights could improve their situation and help guarantee their continued access to the forest products they depend on. The same applies to the legal rights of people living in extractive reserves in Brazil, indigenous peoples and community-based forestry organisations in the Philippines, and other similar groups.

One problem that rural communities and small farmers frequently suffer in many countries is the failure of logging companies to fulfil their promises to construct roads, fund social services and scholarships, pay fees, and provide other benefits in return for permission to log their forests. Establishment and enforcement of legal contracts could potentially go a long way towards solving this problem.

### **Community-based law enforcement**

In many countries rural communities play an increasing role in monitoring and reporting forestry law violations to government officials, confronting law violators themselves, and regulating forest use among community members. In some cases they collaborate closely with government officials, in other cases the two conflict.

Examples of the potential for local communities to act effectively in law enforcement come from Honduras, Mexico, and other countries where local communities have organised to expel outside logging companies they accuse of illegal forestry activities without the support of government departments, often with success. Generally this has involved communities that depended on the forests and were not involved in the logging operations themselves.

In principle, organising communities to defend their own interests in relation to forest law enforcement should be an important element of any strategy to make sure that law enforcement efforts do not negatively affect rural livelihoods. Nonetheless, it would be important to synthesise the lessons from existing experiences before drawing any definitive conclusion. Communities are not homogeneous entities, and some community law enforcement efforts may negatively affect the livelihoods of poorer and weaker groups.

### **Sequencing**

Clearly something needs to be done about illegal forestry activities and the weak rule of law in forested regions. Just as clearly many existing forestry and conservation laws discriminate against small-scale farmers and foresters and indigenous people, and enforcing those laws more effectively would only make the problem worse.

In principal, the logical thing to do would be to reform the laws and the institutions that implement them and then

have the reformed institutions enforce the new laws. But illegal forestry activities are causing major damage now and reforming the forestry legislation and the institutions that implement it could easily take years, or fail completely. That raises a serious sequencing dilemma. Is it better to wait until the laws and institutions are improved before pressing for greater law enforcement, or would it be better to push existing institutions to enforce the present laws now even though that could have a negative impact on rural livelihoods?

There is no easy answer. One probably has to work on both simultaneously, but it is important not to lose sight of the fact that enforcing many existing laws can have negative consequences. Forestry agencies and civil society organisations must work hard to focus on those law enforcement activities that have the greatest potential for improving forest management and tax revenues with the least negative impact on livelihoods.

### **Adaptive management and learning**

There is still much to learn about how efforts to regulate forest use affect rural livelihoods and what can be done to get people to manage their forests more sustainably without making life harder for groups whose lives are already difficult enough. We need much more information about how forestry and conservation laws and regulations are currently enforced and what the impacts have been, as well as to learn from interesting experiences and examples of best practices. At present it is practically impossible to answer questions like how do most forestry officials and park guards spend their time? How many people do they fine or arrest? How common and large are the bribes people pay? How likely is it that forestry violations are detected, and prosecuted and result in punishment? How common are human rights abuses linked to forest law enforcement? How do these dynamics affect small-scale forestry producers' costs and incomes? How many people depend on forestry activities that are currently illegal and in what ways? How much deforestation and forest degradation that negatively affects rural livelihoods results from illegal forestry activities? Until there are more answers to such questions it will be hard to design appropriate forest law enforcement strategies that take into account the implications for rural livelihoods.

Most of the existing information about illegal forestry activities is anecdotal or speculative. While it has been extremely useful for increasing public awareness about the problem and for stimulating action in particular cases, it is less useful for coming up with appropriate policy responses.

To answer the more systematic questions about the links between forest law enforcement and rural livelihoods more formal research will be required. But it will also require well-organised multistakeholder study tours, improved data collection in forest law enforcement agencies, and workshops and visits where people learn from each other's experiences, among other things.

## CONCLUSION

Governments and communities must regulate the management and use of forests to ensure that their useful functions are maintained over time, benefits are shared equitably, conflicts are resolved in a fair and transparent manner, and sufficient tax revenues are obtained to pay for necessary public expenses. The widespread violation of existing forest laws and regulations has major negative impacts on forests, livelihoods, public revenues, and the rule of law. Something must be done about that.

The problem is that many existing forests and conservation laws themselves have unacceptable negative impacts on poor people, ethnic minorities, and women; and in many places they are enforced in a fashion that is discriminatory and abusive. Ways must be found to address the problems associated with illegal forestry activities that at least do not aggravate the negative impacts of existing regulatory efforts on the rural poor. That will not be easy, but it will certainly be completely impossible unless the challenge is recognised from the outset. If this paper contributes to that recognition, it will have served its purpose.

TABLE 2 *Options to address threats to rural livelihoods from illegal forestry activities and from forest law enforcement*

	Illegal forestry activities	Forest law enforcement	Options
Forest product income	Small foresters earn less because they pay bribes and depend on patrons.	Small foresters earn less because governments stop their 'illegal' activities or greater law enforcement leads them to have to pay higher bribes or depend more on patrons.	Reduce and simplify forestry regulations. Exempt small-scale activities from some regulations. Focus regulatory efforts where problems are greatest. Greater transparency in regulation.
Wages from forestry	Over-harvesting makes the forestry sector collapse.	Government actions reduce logging.	Regulators give preference to labour-intensive activities.
Government revenues	Tax evasion and illegal logging in public forests lowers revenue.	Reduced logging due to law enforcement lowers revenue.	Progressive and transparent tax collection.
Physical security	Illegal loggers and corrupt officials threaten and attack villagers.	Officials inappropriately threaten, attack, arrest or expel villagers and destroy their crops and houses.	Strengthen human rights institutions, grass roots organisations and independent judiciary and oversight. Provide legal assistance and promote legal literacy.
Access to forest resources	Wealthy groups and officials 'illegally' deny access to forests and due process.	Wealthy groups and officials 'legally' deny access to forests and due process.	Tenure policies that increase community and smallholder access to forests. Recognise indigenous territories and increase efforts to protect them from encroachment. Multistakeholder dialogues to resolve conflicts and increase access to forests for the poorest groups.
Long-term supply of forest goods and services that poor households use	Damage to forests by illegal logging reduces forest product supply and disrupts environmental services.	Damage to forests due to loss of social capital reduces forest product supply and disrupts environmental services.	Focus regulatory efforts on maintaining forest resources of value to poor families. Support local efforts to protect forest resources legally, politically, and financially.
Collective action and participation	Illegal logging undermines local forest management institutions. Bribes and influence peddling replaces democratic process.	Laws that fail to recognise local forest management institutions undermine them and police action substitutes for dialogue.	Recognise and support community efforts to protect forests. Multistakeholder dialogue and informal mechanisms to resolve conflicts. Compensate communities for environmental services.
Respect for cultures and tradition	Illegal logging undermines traditional institutions.	Laws that don't allow traditional practices or respect local institutions undermine peoples' traditional cultures.	Avoid regulations that unduly restrict people's traditional activities. Implement international agreements concerning indigenous peoples.
Economic growth	Widespread failure to respect rule of law reduces investment and growth.	Limiting forestry activities reduces (short-term?) economic growth.	Make regulatory systems more transparent, democratic, and equitable. Promote small-scale forestry activities and partnerships between companies and communities.

## ACKNOWLEDGEMENTS

The author gratefully acknowledges the contributions of Greg Clough, Marcus Colchester, Filippo del Gatto, Luca Tacconi, and Adrian Wells to this paper and the generous financial support from the Department for International Development (DFID) of the United Kingdom. The paper does not necessarily reflect the official positions of either CIFOR or DFID. The author accepts sole responsibility for all errors.

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