Strengthening Forest Law Enforcement and Governance
Addressing a Systemic Constraint to Sustainable Development

Environment and Agriculture and Rural Development Departments
SUSTAINABLE DEVELOPMENT NETWORK
STRENGTHENING FOREST LAW ENFORCEMENT AND GOVERNANCE

ADDRESSING A SYSTEMIC CONSTRAINT TO SUSTAINABLE DEVELOPMENT

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Environment and Agriculture and Rural Development Departments
Sustainable Development Network
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This report is the product of a team composed of Tapani Oksanen (Task Team Leader and Senior Forestry Specialist, SDN/World Bank), William B. Magrath (Lead Natural Resource Economist, EASRD/World Bank), Nalin Kishor (Technical Specialist and FLEG Coordinator, SDN/World Bank), and Karin Perkins (consultant). In preparing this report the team has greatly benefited from the input of the more than 30 Bank staff who participated in the Bank-wide workshop organized in December 2005 in Washington, DC, and numerous Bank staff and external experts consulted in the course of the work. Detailed comments were provided by the peer reviewers: Mohammed Bekhechi (Lead Counsel, LEGEN/World Bank), Jose Edgardo L. Campos (Lead Public Sector Specialist, PRMPS/World Bank), and Giuseppe Topa (Lead Specialist, AFTS3/World Bank). In addition, the following people provided valuable written comments to the report: Gerhard Dieterle (Forest Adviser, SDN/World Bank), Colum Garrity (Public Sector Specialist, PRMPS/World Bank), Theodore S. Greenberg (Senior Financial Sector Specialist, FSEFI/World Bank), Andrey Kushlin (Senior Forestry Specialist, ECSSD), and Laura Tlaiye (Sector Manager, ENV/World Bank). The Environment Sector Manager for the task is Laura Tlaiye, and the Environment Department Director is James Warren Evans.
**Abbreviations and Acronyms**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AAA</td>
<td>analytical and advisory activities</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
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<tr>
<td>CAS</td>
<td>Country Assistance Strategy (World Bank)</td>
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<td>CEPI</td>
<td>Confederation of European Paper Industries</td>
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<tr>
<td>CIFOR</td>
<td>Center for International Forestry Research</td>
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<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species of Wild Fauna and Flora</td>
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<tr>
<td>COMIFAC</td>
<td>Commission en charge des Forêts d’Afrique Centrale</td>
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<tr>
<td>CSR</td>
<td>corporate social responsibility</td>
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<td>EITI</td>
<td>Extractive Industries Transparency Initiative</td>
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<td>ENA</td>
<td>Europe and North Asia</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FATF</td>
<td>Financial Action Task Force on Money Laundering</td>
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<td>FIAS</td>
<td>Foreign Investment Advisory Service</td>
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<td>FLEG</td>
<td>Forest Law Enforcement and Governance</td>
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<td>FLEG T</td>
<td>Forest Law Enforcement, Governance, and Trade</td>
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<tr>
<td>FSEFI</td>
<td>Financial Market Integrity Unit (World Bank)</td>
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<tr>
<td>GAC</td>
<td>governance and anticorruption</td>
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<tr>
<td>IBRD/IDA</td>
<td>International Bank for Reconstruction and Development/International Development Association</td>
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<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<td>ITTO</td>
<td>International Tropical Timber Organization</td>
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<tr>
<td>IUCN</td>
<td>International Union for the Conservation of Nature and Natural Resources</td>
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<tr>
<td>MCPFE</td>
<td>Ministerial Conference for the Protection of Forests in Europe</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>OED</td>
<td>Operations Evaluation Department (World Bank)</td>
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<tr>
<td>PPATK</td>
<td>Indonesian Financial Transaction Reports and Analysis Center</td>
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<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
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STRENGTHENING FOREST LAW ENFORCEMENT AND GOVERNANCE

UNECE United Nations Economic Commission for Europe
UNFF United Nations Forum on Forests
VPA voluntary partnership agreement
WBI World Bank Institute
WWF World Wide Fund for Nature

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he World Bank has been engaged with Forest Law Enforcement and Governance (FLEG) processes since the first Ministerial FLEG Conference for East Asia in 2001. The importance of curbing illegal logging and other forest crime is also highlighted in the Bank’s 2002 Forest Strategy. At the country level, the Bank, particularly in the past several years and with an increasingly sharp focus on combating forest crime as part of broader forest sector operations, has an even longer track record of supporting improved forest governance and law enforcement. The Bank is by no means working alone in this area. An increasing number of actors, including governments, nongovernmental organizations, private sector companies and associations, and international organizations are working in partnership to address these issues. From an almost taboo subject discussed only indirectly and in vague terms, illegal logging and other forest crime has become part of the mainstream dialogue on sustainable forest management.

This report arises from the need to take stock of both the Bank’s efforts in this arena and the broader partnership approaches at the national, regional, and international levels. It seeks to assess current approaches and experiences and set the stage for a discussion on how to move effectively forward beyond dialogue, negotiation, and piloting to effective scaling up of implementation with concrete and visible impacts.

The intended audience includes practitioners outside and within the Bank, those within the forest sector, and those working with broader governance reforms. The report will address both the Bank’s efforts and those of the broader community involved in FLEG. In fact, given the partnership nature of this work, it makes little sense to attempt to compartmentalize these. It is expected that the report will make the Bank’s views on how to move the FLEG agenda forward transparent to other partners and contribute to an open and frank dialogue. A more internally focused Bank document will be developed after consultations with the partners on the broad ideas presented in this report.

One of the more difficult issues was to find the right balance between the relatively narrow issue of law enforcement, derived from the urgent concern about illegal logging and trade of illegal timber, and the much broader and more diffuse issue of forest governance, requiring a longer-term developmental approach. In the course of the work it has become clear that different actors and experts have varying opinions and understanding on this. Equally, there are different views on whether FLEG efforts should focus on timber and other primary forest products or cover the whole spectrum of possible illegal activities including...
wildlife poaching, arson, and illegal conversion of forest lands for other uses.

The report attempts to define the balance and scope in a way that is in line with the mainstream thinking in the Bank. It is evident, however, that the scope needs to be discussed and defined in each region and country based on regional and national priorities, and will and should be different depending on the context. An overall definition, such as presented in this report, is only useful as a general framework for this discussion.

Finally, in the course of this work it has become clear that many other sectors dealing with the management and use of natural resources are facing similar problems and are attempting to solve them through efforts at different levels. The forest sector seems to be in many ways ahead of the curve, and the FLEG processes and related actions at the country level could offer valuable lessons to inform these efforts. Thus, this report should not be seen as only of relevance to the forest sector and FLEG processes, but needs to be distributed more widely to actors and experts in other sectors working on governance and law enforcement.
Problem Description

Forest crime, including illicit activities such as illegal logging, illegal occupation of forest land, woodlands arson, wildlife poaching, and encroachment on both public and private forests, and corruption is rampant throughout the world. It is particularly troubling in developing countries, where illegal logging in public lands alone causes estimated losses in assets and revenue in excess of US$10 billion annually, more than six times the total official development assistance dedicated to the sustainable management of forests. As much as US$5 billion is lost annually to governments because of evaded taxes and royalties on legally sanctioned logging. Within developing countries, 1 billion extremely poor people depend upon forests for part of their livelihoods, and as many as 350 million people living in and around forests are heavily dependent on forests for their livelihoods and security. These vulnerable groups are at risk from illegal logging and removal of timber and nontimber products from the forests.

Moreover, violations of protected areas boundaries threaten the conservation of forest resources and biodiversity. Legitimate forest enterprises are subjected to unfair competition through price undercutting and discouraged from making socially and environmentally responsible investments in the sector. There are less visible—though highly insidious—costs resulting from the erosion of institutions, the spread of corruption across the economy, and lower growth. Finally, forest crime creates negative environmental, economic, and social consequences also at the global level. Forests are a global public good, and their degradation imposes global costs such as climate change and species loss.

Despite the magnitude of the problem, there are few instances of prosecution and punishment. In fact, if there are prosecutions it is the poor, looking to supplement their meager livelihoods, who are victimized and sent to jail. Large-scale operators continue with impunity. Arguably, this is the worst form of violation of equity and justice, arising from a clear failure of governance and it needs to be addressed.

Differentiating between illegal activities driven by poverty (fuelwood and fodder collection needs, for example) and those resulting from outright greed and involve organized criminal activity, is helpful in formulating effective and equitable responses to address these complex problems. Generally, initiatives aimed at reducing poverty would help address the poverty-related driver. Poverty reduction approaches targeted at forest-dependent populations involved in forest crimes will be a particular necessity, especially in situations where broad development programs will likely lead to only gradual reductions in poverty.
These approaches must deal with issues connected to land tenure arrangements, access rights, overly complex laws and regulations biased against the poor, and transparency and stakeholder participation in decisions directly affecting their livelihoods. On the other hand, combating large-scale criminal activities requires both targeted action in directly improving forest law enforcement so that criminals are apprehended and punished. It would also include more fundamental changes to improve the broader governance environment in the forest sector and in the society at large to help strengthen law enforcement efforts.

Trade in timber and timber products, originating in response to demand from developed countries, has also been identified as an important driver of illegal logging. Illegal logging has been found to depress world prices of timber products, and the financial proceeds from the sale of illicit forest products often wind their way, through money-laundering schemes, into such nefarious enterprises as supporting terrorism, armed conflicts, human and drug trafficking, and protection of war criminals. Consequently, combating this phenomenon requires both strengthening forest governance in problematic producer countries and implementing environmentally and socially responsible procurement policies in consumer countries.

As the trade of timber products is often routed through third countries (China, for example, re-exports about 70 percent of its timber imports), it is important to engage all countries—producers and consumers—in the forest products’ supply chain to address the problem.

**Forward-Looking Approaches and Areas for Action, Risks, and Challenges**

The conceptual constructs suggested in this report for understanding the sources and drivers of crime (means, motives, and opportunity) and the structure of forest law enforcement systems (prevention, detection, and suppression) provide a robust framework for the systematic assessment of national programs and international actions. It builds on a body of expert knowledge and professional law enforcement practice that is only just now being brought to bear on problems in the forest sector while at the same time acknowledging that failures of broader governance systems often lie at the heart of forest crime. While other frameworks and models are available and can be equally useful, the main message here is one of the urgent need to increase the knowledge content of the debate on forest crime and to improve the technical content of national programs and development assistance.

In many countries, law enforcement capacity and expertise exists in other sectors and needs to be marshaled in new ways to support forest development. In others, specialized capacity needs to be developed within forestry agencies. Exploitation of new enforcement innovations and opportunities, made possible, for example, by the introduction of anti-money-laundering legislation, the adoption of the UN Conventions Against Transnational Organized Crime and Corruption, and by other new legal and judicial innovations, will require new skills and capacity.

Beyond more and better knowledge, it is clear that enormous investments will be required to achieve the needed control on forest crime. No one knows how much will be needed. To a large extent, investments in better resource management, social development, and industrial restructuring will spill over into improved compliance with laws and regulations. But substantial amounts of resources will be needed specifically for specialized and increasingly sophisticated forest law enforcement capacity building.

The means, motive, and opportunity construct is of particular value in suggesting areas of comparative advantage across potential partners in improving forest law enforcement and governance. For example, consumer countries and industry have particular niches in helping to
reduce the motive for illegal logging by reforming markets and public procurement policies that discriminate against stolen material. Governments and financial institutions can help limit the development of excess wood processing plants and equipment by requiring and exercising due diligence in assessing wood supply and land availability in consideration of wood-based and agro-industrial investments. Producer countries have obvious priority in respect of improving forest management as an approach to reducing the opportunities available for illegal activities.

Based on the discussion and analysis presented in this report, forest crime would have to be addressed through multifaceted approaches. Such approaches need to:

- **Address key drivers both within and outside the forest sector:** Some governance issues relating to forest crime lie entirely within the forest sector while other governance issues affecting forests and forest-dependent people extend beyond the forest sector.
- **Combine actions with both short- and long-term implications in a realistic stepwise plan:** Visible short-term impacts are often needed to create and maintain momentum, whereas long-term work with the structural drivers is necessary to ensure that these efforts are sustainable over time. Early “wins” (for example, significant increases in forest revenue) are important factors to motivate continued efforts.
- **Address both failures of law and failures of implementation:** On the one hand, ensure that the correct laws and policies are in place. On the other, work to enforce the law. This two-pronged approach to legal compliance is the only way to ensure that the full range of motivations, opportunities, and means for illegal behavior is addressed.
- **Strengthen supply-side measures with measures to control imports of illegal timber and wood products:** This is especially important in countries where export demand is a significant driver of illegal activities in the forest sector. It should be noted that—at least in principle—these measures could be also extended to other products (for example, wildlife or products that derive from illegal conversion of forest lands).
- **Integrate anti-money laundering and asset forfeiture laws into the fight against forest crime and related corruption:** These tools, along with the UN Conventions Against Corruption and Transnational Organized Crime, provide strong and effective regimes that governments can use to fight forest crime and related corruption.

Specific opportunities for action by the international community include:

- Deepening the technical content of Forest Law Enforcement and Governance (FLEG) processes at the international and national levels, mobilizing opportunities for multilateral enforcement action, and integrating the regional FLEG processes into existing structures for regional cooperation.
- Promoting collaboration between the progressive elements of the industry, international financing institutions and international nongovernmental organizations involved in the FLEG process to develop, improve, and harmonize safeguards and due diligence on forest investments. The aim should be both to ensure the legality of the timber used and to mitigate the risk for other forest crimes, such as poaching, arson, and encroachment of forest areas, resulting from forest industry investments.
- Ensuring effective coordination between the implementation of the European Union Forest Law Enforcement, Governance, and Trade (FLEGT) Regulation and Action Plan and other forest law enforcement and governance efforts. The aim should be strengthen the linkages between the voluntary partnership
agreements envisioned in the FLEGT action plan, and the lending and advisory operations of the international financing institutions, especially the World Bank.

- Exploring the potential of the Extractive Industries Transparency Initiative as a means of increasing the transparency of the forest sector financial flows in some key forest countries, especially where a relatively small number of companies operate large forest concessions.

Focusing more directly on illegal logging and other forest crimes will not always be a natural or comfortable role for development agencies including the Bank. Inevitably, it will involve development agencies in complex and controversial issues regarding the quality of laws and put these institutions at times at odds with powerful interest groups defending the status quo for personal gain, including in some cases high-level government officials. Consequently, there are two potential areas of risk which the international community needs to be aware of:

- As with any complex and controversial issue involving different interests and actors, there are reputational risks related to work with forest law enforcement and governance. The Bank and its partners need to be especially sensitive to issues related to human rights and equity in their work. Transparency and advocacy and support to participatory approaches are important means to avoid these types of risks.

- A more vigorous engagement with forest law enforcement and governance will also inevitably involve difficult issues related to national sovereignty in the management of natural resources. This political risk needs to be carefully managed.

Involvement in forest law enforcement and governance is not, however, entirely new or novel, and the Bank and others can have a constructive role by linking existing forestry work effectively with broader efforts to improve governance in client countries. Forest law enforcement and governance work may sometimes be at the frontier of the international community’s capacity to deal with problems of armed groups, political interests, and criminal organizations. Development practitioners will need new skills and knowledge, some of which will have to be built through experience, to deal with problems such as blending promotion of systemic and long-term governance reforms with targeted crime-suppression programs.

The world’s problems of forest law enforcement and governance problems will never be entirely or permanently eliminated. Nor will they be solved only by jails, courts, and arrests. Dramatically improved resource management, effective rural development services and poverty reduction serving forest-dependent communities, industrial restructuring, protected areas systems serving the needs and aspirations of local communities, and all the other components of sustainable forest sector development and just and equitable economic and social development will, in the end, be more important.

Credible penalties, effective enforcement, and fair and just legal systems are, however, essential ingredients to the control of forest crime. Forest law enforcement and governance should not displace the established focus of forest sector development strategies or assistance. More sophisticated technically and analytically sound forest law enforcement and governance work should, however, be added to the array of interventions and approaches supported by the global community.
Forest crime, including illicit activities such as illegal logging, illegal occupation of forest land, woodlands arson, wildlife poaching, encroachment on both public and private forests, and corruption is rampant throughout the world. It is particularly troubling in developing countries, where illegal logging in public lands alone causes estimated losses in assets and revenue in excess of US$10 billion annually, more than eight times the total official development assistance dedicated to the sustainable management of forests. As much as US$5 billion is lost annually to governments because of evaded taxes and royalties on legally sanctioned logging. But the consequences of forest crime in developing countries go well beyond financial losses. (See box 1.1.)

Within developing countries, 1 billion extremely poor people depend upon forests for part of their livelihoods, and as many as 350 million people living in and around forests are heavily dependent on forests for their livelihoods and security. These vulnerable groups are at risk from illegal logging and removal of timber and nontimber products from the forests. Moreover, violations of protected areas boundaries threaten the conservation of forest resources and biodiversity. Illegal logging is believed to be depressing world prices of timber products, leaving legitimate forest enterprises subject to unfair competition and discouraging socially and environmentally responsible investments. There are less visible—though highly insidious—costs resulting from the erosion of institutions, the spread of corruption across the economy, and lower growth.

Forest crime likewise has negative environmental, economic, and social consequences at the global level. Forests are a global public good, and their degradation imposes global costs such as climate change and species loss. The financial proceeds from the sale of illicit forest products may wind their way, through money laundering schemes, into nefarious enterprises such as supporting terrorism, armed conflicts, drug trafficking, and protection of war criminals.

Forest crime largely results from weak governance and subsequent poor law enforcement in the forest sector. Poor quality of forest sector governance is a chronic characteristic of many developing countries, and this poor quality is often symptomatic of the quality of overall governance in these countries.

A review by the World Bank’s Operations Evaluation Department (OED) of the performance of the Bank’s 1991 Forest Strategy (Lele et al. 2000) pointed to the failure to address governance issues as a serious gap in the Bank’s work in forestry, and recommended that the Bank help reduce illegal logging by actively promoting
Box 1.1. Costs and Consequences of Forest Crimes

It is estimated that global illegal logging in public lands alone causes losses in assets and revenue in excess of US$10 billion annually, more than six times the total official development assistance to the sustainable management of forests. Another US$5 billion per year is estimated to be lost because of uncollected taxes and royalties on legally sanctioned timber harvests. In the context of international timber trade, in Indonesia, for example, the low-end estimate of the royalties, reforestation fund, and export taxes payments that are not being paid to the government on stolen timber amount to US$600 million per annum. This amount is more than twice what the government spent on subsidized food programs for the poor in 2001. In addition to the direct financial losses including a leakage of local and central government revenues, illegal logging and other forest crimes are associated with many negative economic, social, and environmental impacts. Illegal logging–induced deforestation is associated with landslides and large-scale deaths and destruction of property in Philippines and Thailand in the 1980s. Forest degradation linked to illegal logging and other forest crimes threatens biodiversity and increases carbon emissions and the costs associated with global climate change.

The livelihoods and security (both economic and social) of local communities and indigenous forest-dependent peoples are often threatened because of the illegal logging and removal from the forest, since the rich and powerful often encroach upon the rights of the poor. Where the poor are employed in illegal operations, they tend to get marginal gains while the ring leaders skim off the bulk of the money. A study by the Environmental Investigation Agency and Telepak Indonesia estimates that a local laborer gets less than 10 percent of the value of the timber harvested for an illegal operator. In addition, benefits to the poor are transitory as the large operators abandon a site once its commercial potential is exhausted.

Illegal logging distorts the marketplace, and legitimate forest enterprises are subjected to unfair competition through price undercutting and discouraged from making socially and environmentally responsible investments into the sector. An analysis for the U.S. estimates that domestic roundwood prices would be 2–4 percent higher if “suspicious” roundwood production were eliminated. In the absence of competition from illegal producers, the United States would be able to increase its exports of wood products by about US$460 million per year.

Illegal forest operations can be linked to conflicts and wars. “Conflict timber” is the term associated with such activities, and in countries such as Cambodia, Liberia, Côte d’Ivoire, and the Democratic Republic of Congo, revenues from illegal logging fund national and regional conflicts, thereby creating political instability in which entrenched interest groups continue their exploitative activities.

The lack of transparency and good governance further compromises any efforts at improvement, for example, by providing opportunities for money laundering and generating finances for political campaigns and weakening the rule of law in forest areas, disrupting legitimate economic activities, and eroding institutions. The illegal money generated from forest crimes often finds its way into activities such as providing slush funds for corruption in other sectors, land speculation, gambling, and human and drug trafficking, all of which have deep negative impacts in the economy at large.

Sources: World Bank (2004a); Environmental Investigation Agency (2001); Seneca Creek Associates (2004).
Governance (FLEG) process in partnership with governments, nongovernmental organizations (NGOs), and the responsible private sector. Since 2001, for example, the Bank has organized and facilitated, in conjunction with both producer and consumer country governments, three regional FLEG ministerial conferences.³

In the past decade, the international community has recognized the magnitude of illegal logging and other forest crimes problems and has responded with a growing number of multilateral, bilateral, civil society, and private sector initiatives. These have increased the attention paid to forest crime in participating countries, including at high political levels, and have helped to erode the associated sense of taboo. The regional FLEG processes, anchored in international environmental diplomacy and political negotiations, are perhaps the most visible manifestation of this concern (see chapter 3). The processes are expected to create a demand for better governance and improved law enforcement at the country level (which is where the law enforcement problems will fundamentally get resolved) as well as at the multilateral level. These processes have already led to some concrete, albeit still insufficient, action to address specific forest governance and law enforcement issues in some key countries, such as Indonesia and Russia.

Ultimately, improving forest law enforcement and governance in developing countries will call on governments, international organizations, civil society, the private sector, and others to expand their conventional approaches to forestry and to work in new, unfamiliar, and potentially risky ways. Improving forest law enforcement and governance may turn out to be largely about helping to establish overarching systems of anticorruption mechanisms, increased transparency, and the rule of law. It will probably also involve deepening the technical quality of forest and natural resource management, and thereby increasing predictability in forestry practice, ameliorating supply and demand imbalances, increasing people’s participation, and reforming forest land tenure. It will also, unfortunately, require addressing crime and criminals in both frank and sophisticated ways, ensuring that the force of law enforcement falls on genuine threats to the sustainable development of natural resources and does not become an added burden on the poor and disempowered.

Objective and Structure

This report takes stock of current approaches in promoting forest law enforcement and governance and seeks to help better frame discussion on ways forward at national, regional, and international levels. The report outlines ways forward for combating illegal logging and other types of forest crime in the context of a strategy of promoting economically, environmentally, and socially sustainable forestry in client countries. It is expected that the report will also contribute to improved coordination and collaboration between the Bank and key partners involved in these efforts.

Chapter 2 discusses the nature and modalities of forest law and the specific kinds of forest crimes that have gained international attention. It presents available estimates of the problem at the global and specific country levels and attempts to define the boundaries of forest law enforcement and governance.

As recently as five years ago, illegal logging and forest crime were politically charged topics, rarely discussed in country level or international forums. Global sensitivities have changed. Today, crime, corruption, and, specifically, forest crime have come to the forefront of the global debate on sustainable forestry. Thus, Chapter 3 discusses the key regional and international efforts to facilitate and support forest law enforcement and governance and their achievements and the challenges they face.

Chapter 4 then describes the Bank’s experience in this area, including its broader
efforts in supporting good governance. It identifies areas where synergies within the Bank might be achieved. These are clearly of relevance for other development agencies that support efforts to reform forest governance as well as governance more generally and are interested in achieving more from their programs.

Chapter 5 lays out a causal model of forest crime and a classification scheme for potential interventions. It then presents a forward-looking approach to improving forest law enforcement and governance based on a framework that can be used to inform and structure analytic work and discussions at the country level and can help identify areas where international support can effectively complement country-level efforts in general.

Finally, Chapter 6 discusses putting such an approach into practice.
law is one instrument of policy (such as investment and incentives) to achieve development outcomes. Much forest law establishes objectives and institutional structures and confirms ownership in respect of these provisions. The concern is broadly one of implementation. A more limited portion of forest law and general law governing property is concerned with crime and the remedy is enforcement. As will be discussed later in this report, criminal law consists of a large range of actions and potential interventions. Measures to prevent, detect, and suppress crime are directed at particular activities proscribed by law.

**Law and the Forest**

Forest crime ultimately results from a failure of the rule of law. Rosenbaum (2002) classifies two types of failure in the legal system that lead to criminal behavior: failures of law and failures of implementation. Failures of law include:

- Clashes of norms, when “the rights to the resources as set out in law are not the same as the rights that people or communities believe that they are entitled to have”
- Undetectable violations, when the law is written in such a way that makes it difficult to enforce
- Weak penalties, resulting in insufficient punishment to deter criminal behavior
- Conflicting legislation (see box 2.1)

Failures of implementation, on the other hand, include:

- Poor dispute resolution, which can lead to solutions outside the law
- Unfair application of the law (for example, bias, patronage, corruption, and so on)
- Failure on the part of forest agencies to follow the law
- Lack of capacity to enforce the law
- Lack of capacity to administer the law
- Lack of coordination among government agencies
- Lack of enforcement of laws outside the forest sector (for example, in banking or immigration law)
- Lack of government oversight

The right laws must exist, and they must be enforced. What are the “correct” laws, then, with respect to forests? Although some general guidance can be provided based on legal expertise (box 2.2), there is no easy and straightforward answer. It needs to be analyzed and debated at the national level by different forest stakeholders, and is finally decided by the national parliaments or other government institutions entrusted with this responsibility and accountable for their decisions to the public. What is, however, clear is that often the laws are not correct, especially from...
the point of view of the poor and marginalized groups in the society, and that these groups are often not able to get their voices heard in legislative reform processes.

This is echoed in a recent report (Colchester 2006) that examines the social and political economy implications of forest law. Colchester et al. argue that many existing forest laws actually harm the poor, and that current forest law enforcement and governance efforts often focus too heavily on enforcement of legislation and not enough on getting the laws correct. A similar argument is made by Savcor Indufor Oy (2005), who distinguish between poverty-driven and commercially driven illegal activity, and argue that the efforts to combat poverty-driven forest crime should, instead of emphasizing law enforcement, focus on closing the huge gap between legal supply and demand (especially of fuelwood) that exists in many countries (for example, by legalizing currently illegal forest use by local communities).

Furthermore, it is not sufficient to have the correct laws. Rather, transparency is critical. This includes both broad dissemination of the laws and ensuring that the language is understandable to the public.

**Scope of the forest law enforcement and governance approach**

While illegal logging currently captures the greatest international attention, there are several kinds of forest-related crimes with serious impacts at both national and global levels. In addition to timber theft in its different forms, forest crimes include corruption and other fiscal...

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**Box 2.1. Conflicting Forestry Legislation**

Indonesia offers an interesting example where economic policy reform created a legal conflict. In this case, decentralization vested local bupatis with the authority to unilaterally issue logging licenses inside the national forest estate. This contradicted the earlier provision of requiring prior approval from the national level authority, and led to a spate of "illegal" over-cutting (purportedly to benefit the needs of local people), compounded by local-level corruption and poor capacity for monitoring and enforcement.

To remove the contradiction between local and national legislation, a new Presidential Instruction issued in March 2005 requires governors and district heads to "revoke and revise" decrees that are in contravention of legislation in the sector of forestry. In other words, regional laws, which allow provincial or district authorities to unilaterally issue timber concessions inside the national forest estate (without prior approval from the national level), must be immediately struck from the books.

*Source: FAO (2005).*

**Box 2.2. What Makes a Good Forest Law**

Although there is no one-size-fits-all description of a good forest law, lawmakers can design laws in ways that resist illegal activities and corruption by doing the following:

- **Avoid legislative overreaching**: Do not write laws that exceed national capacity, that are more elaborate than necessary to achieve the intended policy, or that are socially unacceptable.
- **Avoid unnecessary requirements for licenses or permissions**: These add to the burden on both government and private sector resources and offer opportunities for corruption. Make sure license and control requirements serve a genuine purpose.
- **Promote transparency and accountability**: These serve both to deter bad acts and to make their detection easier. Where the law grants discretion to officials, it should provide standards for exercise of that discretion.
- **Enhance the stake of local, nongovernment interests in forest management**: The law can do this by better recognizing existing rights or by creating new opportunities for local people to benefit from forest management. Without local support, law enforcement in forest areas is difficult.
- **Adopt the law through a broadly participatory process**: This promotes a sense of ownership of the law among stakeholders and a resulting respect for it.
- **Increase the effectiveness of law enforcement mechanisms in the law**: Set appropriate penalties and have effective enforcement powers and procedures.

*Source: World Bank (2006).*
crimes related to the use of the forest resources. These crimes, whether addressed in forest laws or other legislation, are commonly addressed under forest law enforcement and governance. The same should apply to labor and environmental legislation directly related to forest operations (box 2.3).

Forest crimes also include wildlife poaching, arson, and encroachment on forest lands, which may have little or no connection with the use and misuse of timber resources. Of these, poaching and, to a more limited extent, arson are addressed in this report because they are often also addressed in forest legislation and their drivers can be thought of in the same framework as illegal logging and other timber-related crime. Some forest crime is driven almost entirely by factors outside the forest sector, such as demographic pressure, unequal distribution of available agricultural lands, powerful economic interests, and political and social upheavals, such as war and famine. Instead of enforcement per se, these issues are better dealt addressed through wider processes such as land use planning, land reforms, national forest programs, poverty reduction strategies, and other development planning instruments with a much wider scope and broader reach.

While illegal logging and other forest crime can, from a national point of view, be important in both small and large and high-forest and low-forest countries owing to its negative economic, social, and environmental impacts, from a global perspective it is possible to give some indication as to where these impacts are likely to be most harmful (table 2.1). Figure 2.1 also indicates how the problems in the forest sector are linked to broader issues of governance.

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**Box 2.3. What Do Illegal Logging and Related Crime Look Like**

Illegal logging and other related crime takes various forms including, among others:

- Timber theft
- Unauthorized harvesting of wood
- Noncompliance with regulations related to timber harvesting
- Evasion of taxes and fees
- Noncompliance with regulations concerning transport of export of timber
- Noncompliance with labor laws
- Noncompliance with environmental laws

Illegal logging and other related crime take place at different stages of the production chain:

- In the award of forest concession and timber procurement contracts
- By harvesting in areas where such rights do not exist (for example, conservation or protected areas) or regarding protected species that should be off limits for exploitation (for example, species on CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) appendix II, such as broad-leaved mahogany)
- During the actual timber harvesting operations
- During the transport and processing of timber
- During timber export

Equally, illegal logging and other forest crimes can involve both criminal and administrative infringements, and can take place primarily in violation of forest laws and within the purview of the forest authorities, or can involve breaking laws and regulations completely outside of their enforcement capacity (corruption, fraud, noncompliance with labor laws).

Weak governance in the forest sector is inextricably tied to weak governance in society more broadly. Therefore, while forest law enforcement and governance must be embedded in a sound strategy for overall forest sector management, it should also relate to more general efforts to address governance and rule of law. It is through the linkage between efforts in the forest sector and broader governance and law enforcement initiatives that forest law enforcement and governance become part of the mainstream efforts in combating corruption and crime and promoting good governance in general.

**Types and Magnitude of Illegal Logging and Other Forest Crime**

*Illegal Logging and Trade*

Estimating the extent of illegal logging and trade in illegal timber and timber products presents a number of problems, and regardless of the definitions and methodology used, the exact magnitude cannot be known with certainty. Speculation about illegal activity can, nevertheless, be examined in a rigorous fashion using a number of well-accepted tools and methods. Discrepancies in wood supply-demand balances, import-export statistics, price trends, revenue realization, forest cover change estimates, and other red flags are all incomplete but important indicators and measures of illegal logging. These can be consolidated into a coherent story that can motivate concern and follow up through an intelligence cycle. Available data, however, are sufficient to illustrate the magnitude of the problem. Table 2.1 provides estimates of illegal logging as a percentage of total wood harvest in 17 countries. Illegal logging in these countries is believed to range from 10 to 15 percent of total harvest in northwest Russia to up to 80 percent of total harvest in Bolivia and Peru and 90 percent in Cambodia.

In an in-depth, multicountry study of illegal logging, Seneca Creek Associates (2004) found that the value of suspicious wood products worldwide may be as high as US$23 billion. Of the total of illegal timber, the study estimates that about US$5 billion enters world trade (table 2.2), representing as much as 10 percent of the value of global trade of primary wood products.

The study also estimates that 12 percent of global softwood roundwood exports and as much as 17 percent of global hardwood roundwood exports are of suspicious origin. Less than 4 percent of global trade in softwood lumber and plywood originates with timber of suspicious origin, but as much as 23 percent of hardwood lumber exports and 30 percent of hardwood plywood exports might be considered suspicious. The trade of timber products is often routed through third countries, adding another trade-related dimension to the problem (box 2.4). An economic analysis based on simulations from the Global Forest Products Model suggests that this illegal material depresses world prices by 7–16 percent on average. This has
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considerable negative implications in terms of their competitiveness to those producers who invest in the legality and sustainability of their products.

By volume, firewood accounts for the largest single use of wood around the world. In developing countries, most firewood use is consumed for domestic and small-scale industrial uses and is based on family labor or informal supply systems that are often based on sources of supply outside of officially recognized forest areas, such as farmland, brush and scrubland, and other scattered trees. A substantial portion of fuelwood collection takes place outside of formal forest management and in some, perhaps in many circumstances, is in violation of the law. This is one, very common, example of how forest laws in many countries unjustly, and with little or no positive environmental benefit, criminalize large numbers of poor and vulnerable people.

Fortunately, criminal enforcement and penalties are often not pursued against subsistence users and collectors of fuelwood. The mere presence, however, of laws and regulations that poverty impels people to violate puts people at risk of extortion and abuse, furthering vulnerability and disempowerment.

Other timber-related crime

There is a range of illicit activities associated with timber harvesting and trade, beyond cutting trees where and when it is proscribed. Such associated activities include irregular timber sales; corruption in the award of concessions and service contracting; evasion of taxes, royalties, and other fees by enterprises or by communities or private forest owners; circumvention of labor laws; and unauthorized wood processing. Corruption and other financial crimes often involve money laundering, adding another dimension to the constellation of what should be considered forest crime (box 2.5).

Although no reliable estimates are available, anecdotal evidence and stakeholder interviews

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### Table 2.1. Indicative Estimates of Illegal Logging Selected Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent of total production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>80</td>
</tr>
<tr>
<td>Brazil</td>
<td>20–47</td>
</tr>
<tr>
<td>Cambodia</td>
<td>90</td>
</tr>
<tr>
<td>Cameroon</td>
<td>50</td>
</tr>
<tr>
<td>Colombia</td>
<td>42</td>
</tr>
<tr>
<td>Ecuador</td>
<td>70</td>
</tr>
<tr>
<td>Gabon</td>
<td>70</td>
</tr>
<tr>
<td>Ghana</td>
<td>60</td>
</tr>
<tr>
<td>Indonesia</td>
<td>70–80</td>
</tr>
<tr>
<td>Laos</td>
<td>45</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Up to 35</td>
</tr>
<tr>
<td>Myanmar</td>
<td>50</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>70</td>
</tr>
<tr>
<td>Peru</td>
<td>80</td>
</tr>
<tr>
<td>Russia</td>
<td>10–15 (northwest) 50 (far east)</td>
</tr>
<tr>
<td>Thailand</td>
<td>40</td>
</tr>
<tr>
<td>Vietnam</td>
<td>20–40</td>
</tr>
</tbody>
</table>

Sources: Savcor Indufor Oy (2004); FAO (2005); European Forest Institute (2005).

### Table 2.2. Global Volume and Value of Suspicious Wood Products

<table>
<thead>
<tr>
<th></th>
<th>Volume (thousands of cubic meters)</th>
<th>Value (US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roundwood</td>
<td>130,994</td>
<td>12,053</td>
</tr>
<tr>
<td>Lumber</td>
<td>25,236</td>
<td>6,917</td>
</tr>
<tr>
<td>Plywood</td>
<td>9,957</td>
<td>3,535</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>22,505</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roundwood</td>
<td>19,973</td>
<td>1,624</td>
</tr>
<tr>
<td>Lumber</td>
<td>5,780</td>
<td>1,477</td>
</tr>
<tr>
<td>Plywood</td>
<td>5,125</td>
<td>1,820</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>4,921</td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roundwood</td>
<td>17,967</td>
<td>1,231</td>
</tr>
<tr>
<td>Lumber</td>
<td>6,928</td>
<td>1,846</td>
</tr>
<tr>
<td>Plywood</td>
<td>5,237</td>
<td>1,718</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>4,795</td>
</tr>
</tbody>
</table>

Source: Adapted from Seneca Creek Associates (2004).
suggest that in state-owned forests financial losses due to corruption can be as high as or even higher than those due to stolen timber (Savcor Indufor Oy 2005). Corruption can occur at the local level and be petty or it may involve high-level officials inside or outside the forest administration facilitating the supply of major quantities of illegal timber. Common practices include undergrading, underpricing, and manipulation of timber data (for example, to mask industrial timber harvesting as “sanitary cuttings”) (see box 2.6). In practice, the distinctions between illegal logging and other timber-related crime become blurred. The same perpetrators may be responsible for outright theft or corruption-related illegal logging depending on the local situation.

**Wildlife Poaching**

It is believed that the single greatest threat facing many species of wildlife across the world today is hunting for commercial wildlife trade (Wingard et al. 2005). This trade, much of it illegal, is escalating in scale across the globe, from the vast, multimillion dollar trade in animals or their parts across Asia for their meat, skins, as pets, and as medicines, to the “bushmeat trade” across Africa. Increasing trade can be attributed to several factors, including growing access to increasingly small and fragmented natural habitats, a change from traditional to efficient modern hunting technologies, loss of traditional hunting controls, and the addition of big business into a previously local-scale subsistence activity. The loss is accelerated by demand from a growing middle class in urban areas and globalization that facilitates international trade.

In east and Southeast Asia, the illegal trade in wild animals and plants is estimated to be worth millions of dollars. In the early 1990s, the illegal wildlife trade in Vietnam was conservatively
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estimated at US$24 million annually. In 2002, it was estimated at US$66.5 million. In early 2004, Chinese law enforcement seized the skins of 31 tigers—there are only 50 tigers estimated to be left in the wild in China—worth more than US$1.2 million.

All trade in species categorized as endangered is illegal, both under international environment treaties such as CITES and under implementing legislation enacted by national legislatures. Many other species, though not endangered, are traded through permits, many of which are provided using quotas to limit harvests. Trading wildlife without permits, and exploiting wildlife beyond stated quotas, is adding additional stress on wildlife numbers. Consequently, because of limited baseline data, weak capacity, and poor enforcement, much of the nominally legal trade contributes to the demise of wildlife throughout the region (World Bank 2005a).

Arson

Fire is involved in a large percentage of all deforestation and is often the last in a sequence of assaults that destroys the integrity of a natural system. In many natural ecosystems, particularly...
Dry savannahs, fire occurs naturally, and in some regions human-induced fire has been practiced for so long that it is intertwined with co-evolved natural systems that are similarly sustainable and are often indispensable for the livelihoods of indigenous communities.

Fire is also a recognized tool of sustainable forest management when employed as a controlled part of harvesting and regeneration systems or as a component of an integrated protection system that regulates the build up of fuel and the risk of conflagration (especially relevant to park and protected areas management). Fire is also employed as a practical and legitimate tool in land development, conversion of forest land to alternative uses, and in systems of rotational agriculture.

However, while fire can be a natural feature and an important management tool, fire caused by arson can pose serious risks to forests, human safety, and property. Arson can include subsistence slash-and-burn agriculture, illegal and uncontrolled use of fire to clear grasslands to promote regrowth, and use of fire to clear land for commercial agriculture. The latter has contributed to widespread forest destruction in Brazil, Indonesia, and other countries. All three types of arson are often specifically prohibited by law, but the case of arson for slash-and-burn agriculture is similar to that of illegal fuelwood use by the poor (that is, it may be more indicative of failures of law than failures of implementation).

Wildland fire, on the other hand, results from four types of events: natural risks, such as lightning strikes; accidents (escaped fire from domestic or land clearance, industrial accident, or other unintentional cause); negligence; and criminal arson. Criminal arson arises where there is relevant legislation or regulation, or where intent and recklessness rise to higher levels of abuse.

Many countries, including Indonesia and Brazil, legislate and regulate the use of fire but nonetheless experience repeated and costly episodes of uncontrolled fire. Though estimates vary, the 1997 fires in Indonesia, for example, burned 2–5 million hectares of land, affected 75 million people as a result of haze and smog, and cost the region US$4.5 billion (Dennis 1999). These fires were in large measure due to gross violation of standards and regulations governing the conduct of land clearance operations related to oil palm development.


**Encroachment**

Global deforestation is estimated to total nearly 9.4 million hectares per year (see table 2.3). Some unknown but very substantial portion of global deforestation takes the form of illegal encroachment into forest areas. As discussed in Chomitz (2006), this aggregate deforestation results from the individual decisions of millions of large and small actors, most of whom are driven largely, if not exclusively, by economic motivations. Deforestation can be, and often is, economically and socially desirable, making way for profitable and sustainable agriculture and other land uses and can, of course, be environmentally catastrophic in terms of losses of biodiversity. In the same way, deforestation may be legal and officially sanctioned or may be initiated and executed illegally by a range of interests ranging from corporate agricultural interests to ranchers to poor slash-and-burn farmers desperately seeking a livelihood. A special challenge for law enforcement policy posed by forest land encroachment is that in many instances illegal encroachment will be desirable while legal conversions may be undesirable (see box 2.7).

The dilemma of enforcement of the integrity of the forest estate is that large numbers of poor people currently occupy the official forest estate in many countries. This illegal occupancy casts a cloud of criminality over millions of poor people in Indonesia, Brazil, and elsewhere. These should not be pursued through a conventional enforcement approach but should be addressed by reforms to provide tenure and livelihood security and access to investment and services, providing a sound legal basis for development.

**Priority Regions and Countries**

Limitations on data concerning forest crime, including lack of availability for some countries and inconsistencies in measurement and treatment of different types of forest crime,
make comparisons across countries difficult. Nonetheless, it is possible to see, for example, in the case of illegal logging, that the problem is considerably more extensive in certain countries. Available estimates suggest, for example, that the volume of illegal logging in Brazil, Indonesia, and Russia is significantly higher than in several other forest-important countries (see figure 2.1 and table 2.1).

At the same time, illegal logging and other forest crimes are widespread throughout the world, including in developed countries. In addition, because international trade is a powerful driver of illegal logging, producer countries are as complicit as consumer and intermediary processing countries in contributing to illegal logging, and reforms are necessary in both. Thus, identification of priority countries for action needs to be considered carefully, and, in determining where efforts of the international community should focus, other factors (such as the willingness and ability of the government to assert leadership in addressing these issues) must also be taken into account.
As recently as five years ago, illegal logging and forest crime were politically charged topics rarely discussed in country-level or international forums. Global sensitivities have changed. Today, crime, corruption, and, specifically, forest crime have come to the forefront of the global debate. In 2003, the Convention Against Transnational Organized Crime came into effect, and in 2005 the UN Convention Against Corruption. Presently, numerous initiatives and actions are implemented by governments, multilateral and bilateral agencies, international NGOs, and private sector companies to support forest law enforcement and governance. Some of these take place at the international and regional levels, and combine political dialogue and targeted development assistance with support to country-level action and measures to control, and eventually halt, forest crime and international trade in illegal timber and timber products. Others take place at the country level supported by the country programs of multilateral and bilateral financing institutions and/or actions by NGOs, research institutions, and the private sector.

National Law and Forest Law Enforcement Systems

Law enforcement is one of the essential functions of governments. Criminal justice systems vary on the basis of many historical, philosophical, and economic factors (Reichel 2005), and forest law enforcement systems are even more varied and based, in part, on issues related to the nature and value of the forest resource. Forest and natural resource law enforcement does tend to differ from general law enforcement, because of the merger of the territorial and operational management functions of forestry agencies, with those of law enforcement. Planning and execution of timber sales, for example, involves the forestry agency with compliance monitoring and enforcement of timber sales contracts, enforcement of harvesting practice requirements, and rate of cut constraints.

Compliance monitoring and enforcement constitutes one phase of a continuum that continues on to criminal investigation and prosecution. Most all countries have tradition and experience with forest law enforcement efforts. Forestry in many countries is in many ways excessively steeped in a para-military and policing mindset and the paraphernalia of uniforms, arms, and hierarchy. Even where these traditions have weakened, all modern forestry sectors are marked with more or less formal procedures, guidelines, and standards to guide routine operations, remedies, and sanctions that are evoked by deviations and abuse.

Forest law enforcement is usually not the exclusive domain of forestry agencies and
requires coordination and cooperation with other mainstream criminal law enforcement organs of government. These include the police, the prosecutor, and the judiciary, some of which may have national or local authority and, importantly, interest and expertise in forestry issues. All the issues of intersectoral cooperation and coordination that arise in other, more conventional, aspects of natural resource management and development arise in the law enforcement sphere. In some countries, at least some forestry officials have the status of law enforcement officers. In others, their powers of arrest, confiscation, and detention are markedly limited and constrained (see boxes 3.1 and 3.2).

As forest crime becomes more sophisticated and targets more valuable assets, the need for law enforcement agencies to work at comparable levels of technical expertise will increase. Unfortunately, few developing country forestry agencies possess capabilities in criminology, law enforcement, forensics, and law that are sufficient to meet today’s needs. Increasing capabilities, in a way that balances the needs for specific crime suppression efforts with the whole range of other aspects of forest law enforcement (as will be detailed in chapter 5) has only recently come on the agenda of international development agencies through such mechanisms as the regional FLEG process.

**National FLEG Processes**

A small set of countries is beginning to address forest crime through concerted, coordinated, multistakeholder, national-level FLEG processes (box 3.3). The experience with these processes has demonstrated that it is as much a political process as it is technical, and involves conciliation of the various stakeholder interests in a manner that enables change. Where the economic stakes in illegal activities are high, powerful interest groups can forcefully protect the status quo even if the outcome is clearly negative from the society’s point of view.

There is rarely one stakeholder group that is able to push through a major change in the established power balance. Instead, successful change processes rely on coalitions of several

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**Box 3.1. Forest Law Enforcement in China**

In China, the Forest Security Bureau is responsible jointly to the State Forestry Administration and the Ministry of Public Security. The forestry security system consists of 6,726 forestry security units in 30 provinces throughout the country and employs nearly 60,000 staff. In 2004, the budget for forest public security agencies was 50.00 million Yuan (US$6.5 million). Units of the Forest Security Bureau have the authority to investigate forest-related crimes; collect evidence; issue summons; detain, seize, and make arrests; and conduct surveillance. Since 2000, the Forest Security Bureau organized five special crackdown campaigns aimed at serious illegal activities in different forestry regions.

From January 2002 to October 2005, forest public security agencies accepted and heard 639,400 forest-related cases, consisting of 42,000 crimes (8,808 of them serious crimes) and 597,400 administrative offences.

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*Source: China National Forestry Economic Development Center (2006).*
interest groups with different capacities. Local and international NGOs have often managed to bring the problem of illegal logging out in the open and raise awareness among politicians and the general public of the need to act. Representatives from interest groups directly involved in timber production can wield considerable influence among their peers and colleagues. High-level political champions (box 3.4) are also required who are able to fend off efforts to slow down the implementation of the proposed measures through behind-the-scenes maneuvering.

Partners willing to support forest law enforcement and governance can be found among many stakeholder groups. Ministries of finance and local municipalities are probably interested in the increased tax revenue that reduction of illegal activities could bring about. Forest enterprises may be motivated to join the effort because of market pressure or ethical reasons. Local people whose rights are trampled by illegal loggers are potential partners as well as NGOs concerned

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**Box 3.2. Challenges in Forest Law Enforcement in Indonesia**

World Bank/World Wide Fund for Nature (WWF) work describes issues faced in forest law enforcement in Indonesia. Investigators (forest police and the police) have limited capacity to collect evidence and follow a case through to prosecution because investigators have insufficient understanding about recent forest laws and sanctions, court procedures, and forest crimes. Ministry of Forestry investigators lack authority to conduct arrests and to file case dossiers with the prosecutor. Other law enforcement authorities (such as prosecutors and judges) are also unfamiliar with forest penalties and sanctions stipulated in recent forest laws. This often results in the dismissal of forest crimes or the handing down of light penalties.

In some cases, law enforcement agencies, such as the police, military, and the forest police are reluctant to capture or prosecute forest criminals because these officers are directly involved in, or otherwise supporting and benefiting from, illegal forest activities and have very little to gain from enforcement operations. This situation is worsened by the fact that law enforcement operational responsibilities are very fractured owing in part to decentralization or weaknesses in the current organizational structure. It is currently not clear who is responsible for setting priorities or providing oversight or supervision to the forest police and investigators, setting training standards, or ultimately accountable for the performance of forest law enforcement programs.

Finally, effective suppression can be dangerous work, especially when it targets powerful actors such as government officials, military personnel, and timber tycoons. There have been numerous cases where forest police, park rangers, and members of NGOs have been injured or killed for attempting to suppress illegal timber theft. Others have been subjected to intimidation and threats of violence. Many enforcers would prefer turn a blind eye to timber theft rather than suppress illegal logging activity if there is a risk of violent reprisal for suppression efforts.


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**Box 3.3. Bosnia and Herzegovina Action Plan**

During the past several years, the governments of the two entities of Bosnia and Herzegovina—the Federation of Bosnia and Herzegovina and Republika Srpska—along with the donor community, have become increasingly concerned with forest sector governance. Excessive illegal harvesting of forests began during and directly following the 1992–5 war. Since the end of the conflict, forest protection has improved, but illegal logging—mostly in the form of nontransparent selling of timber by forest management companies—continues to be problematic. In an effort to address the situation, the entity governments, supported by the Bank, are formulating an action plan to target illegal activities in the forest and wood-processing sectors, including theft and corruption-related crime. At this stage, the action plan is limited to addressing forest crime associated with management of state forests and public forest enterprises, and has two main components: improvement of external control and internal development of public forest enterprises. The action plan is intended to be undertaken in coordination with reforms in broader forest sector policies (exposing remaining state-owned wood processing industries to competition or privatizing them) and more general governance reforms (strengthening of the judiciary).

Source: Savcor Indufor Oy (2005b).
about protection of the environment, human rights, and democracy. In addition, there are always individuals in all stakeholder groups and institutions including public forest administration who need no other motivation than pursuit for fairness and justice. External partners can reinforce and support these progressive groups and, within the boundaries of their mandates, facilitate their work at the political and technical levels.

The aim of a FLEG process is to bring all these partners together to enable them to reinforce each other. Although it is evident that there will not and should not be any standard model(s) for such processes, some common elements seem to characterize the more promising initiatives currently underway, such as:

- Establishment of a mechanism for interministerial coordination, and a forum for stakeholder participation
- An analytic process for assessing the magnitude, scope, and dimension of the problems related to law enforcement and governance
- Creating awareness, information sharing, and, if necessary, whistle blowing to “name and shame” the worst perpetrators of forest crimes
- A consultation and consensus-building process to define the scope of actions and priorities
- Detailed definition of the actions, responsible stakeholders, mechanisms of implementation, and financing (internal and possible external)
- Obtaining the political endorsement and support for the law enforcement and governance actions

**Regional FLEG Processes**

Since September 2001, regional FLEG ministerial conferences have been conducted in East Asia (2001), Africa (2003), and the ENA region (2005), co-organized by both producer and consumer governments in close collaboration the Bank. Some of the major G8 countries (especially the United States, United Kingdom, and the Russian Federation in the case of the ENA FLEG) as well as the European Commission have played a key role in these processes by providing political and financial support. These efforts have increased the attention given to this issue within participating countries, including at high political levels, and led to concrete, albeit still insufficient, action to tackle specific governance issues at the national and regional level, involving both producer and consumer countries. The regional approach has allowed for:

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**Box 3.4. President Putin Promotes the Russian National Action Plan for Preventing Illegal Logging and Associated Trade**

Following the 2005 Europe and North Asia (ENA) FLEG Ministerial Conference, Russia formulated a national action plan for preventing illegal logging and associated trade. The plan identifies socioeconomic, legal, sectoral, and intersectoral causes of illegal logging and suggests measures dealing with (a) improving legislation regarding taxes, penalties, and administration; (b) improving the sector governance system regarding interagency coordination and cooperation and information; (c) improving forest management practices regarding forest inventories, forest leases, remote sensing and monitoring, and forest certification and conservation; and (d) developing socioeconomic mechanisms, including civil-society participation, environmental awareness, and building up the image, value, and market share of legal forest products. The plan also identifies concrete areas of international cooperation, including follow up to the ENA FLEG process at the regional level.

President Putin has publicly denounced the wastefulness with regard to the nation’s forest resources, pointed to the need for structural reforms in the sector, instructed the ministers to settle all disagreements regarding the proposed Russian Forest Code, and promoted the action plan to combat illegal logging, noting that this challenge has an international dimension.

*Source: Federal Forest Agency of the Russian Federation (2006).*
• Multistakeholder technical meetings where experiences with forest law enforcement and governance issues are shared
• Intergovernmental negotiations for the drafting of a ministerial declaration and action plan to improve forest governance and combat illegal logging and associated trade
• Other regional stakeholder meetings both prior to and as a follow up to the ministerial declarations.

National-level actions with multistakeholder participation have assisted in the preparation of input to the conferences as well as the development of follow-up action plans.

The regional FLEG processes have aimed to create the high-level political commitment and the political space at national and regional levels to address these complex and politically sensitive issues, in partnership with major stakeholders from civil society and the private sector. While the success of these regional processes owes to the commitment of participating governments and other stakeholders, the Bank has played a critical role getting these processes off the ground.

To date, the regional FLEG ministerial processes have:

• Increased awareness on the impacts and causes of illegal logging and other forest crime, and improved understanding of the different types of actions in and around the forest sector that are needed to create the conditions for legality
• Established combating illegal logging and other forest crime as a shared responsibility of producers and consumers of forest products where governments, civil society, and the private sector all have distinct roles to play, and provided some level of understanding regarding these different roles
• Created a political platform and momentum that different actors (within the government, donor agencies, civil society groups/NGOs) can use to mobilize resources and obtain cooperation and/or decrease resistance to different types of actions to combat illegal logging and forest crime
• Helped to identify priority actions regionally and nationally and facilitated exchange of experiences and best practice
• Created some level of basic data on illegal logging and other forest crime as a basis for informed, multistakeholder discussions, and as a means for establishing baselines against which to monitor progress
• Provided a network for information sharing between different actors (donors, international organizations, researchers, NGOs, government officials, more progressive private sector) and contributed to better coordination of activities
• Influenced the incorporation of illegal logging and other forest crime in several regional processes, such as the Commission en charge des Forêts d’Afrique Centrale (COMIFAC) and its Plan of Convergence in the Congo Basin, the Association of Southeast Asian Nations (ASEAN) through its meetings of senior forestry officials, the Asia Forest Partnership (box 3.5), and the Ministerial Conference for the Protection of Forests in Europe (MCPFE). These initiatives can be seen in part as complementary to the FLEG ministerial processes. In part they have adopted the illegal logging agenda as a means to strengthen the regional ownership of the FLEG initiatives in relation to the regional ministerial processes, which by some countries are seen as being strongly influenced by the interests of a specific group of consumer countries (for example, Gulbrandsen and Humphreys 2006).

Beyond the more direct impacts listed above, the regional FLEG processes have arguably also intensified action by several key European governments with large imports of suspicious timber and timber products to halt illegal imports
STRENGTHENING FOREST LAW ENFORCEMENT AND GOVERNANCE

Box 3.5. The Asia Forest Partnership

Launched at the 2002 World Summit on Sustainable Development, in Johannesburg, the Asia Forest Partnership comprises 17 producer and consumer nations and 17 intergovernmental and civil society organizations. Supported by the government of Japan, the Asia Forest Partnership promotes sustainable forest management through support for control of illegal logging, control of forest fires, rehabilitation and reforestation of degraded lands, and developing capacity for effective forest management. The Asia Forest Partnership forest law enforcement and governance-related activities include harmonization of initiatives to combat illegal logging, including Asia FLEGT, the Pan-ASEAN Timber Certification Initiative, and so on; supporting cooperation among customs and other relevant agencies; developing minimum standards of legality, timber tracking, and chain of custody systems; and verification systems. The Asia Forest Partnership offers a mechanism to engage on forest law enforcement and governance with several important Asian governments, including both producer and consumer countries. It is especially important in terms of the Japanese market, one of the major consumers of both legal and illegal forest products in the region.


(for example, through public procurement policies and collaboration with the private sector). Donor assistance to activities related to forest law enforcement and governance has intensified, and there have been a number of bilateral memoranda of understanding and similar undertakings to address illegal logging and other forest crime. There are also signs that industry associations and some of the key multinational companies are increasingly serious in addressing this issue as part of their corporate social responsibility (CSR) policies and actions as an outgrowth of FLEG diplomacy. In addition, a number of prominent international and national NGOs have this issue high on their agendas and continue their work with advocacy, information, and piloting of concrete approaches, often supported by the same donor countries otherwise active in forest law enforcement and governance and in some cases in partnership with the private sector. In a very real sense, an international partnership for forest law enforcement and governance has formed, at least in part, as a result of these regional FLEG processes.

The legitimization and rhetoric and building of partnerships that has resulted from the FLEG ministerial processes has, so far, had mixed impact on actual enforcement and compliance. Few major reforms in forest law enforcement and governance systems at the national level have resulted from the ministerial meetings (Indonesia and Russia being the most significant exceptions). A number of governments of countries with an important role in the forest products production and marketing chain are still only marginally, if at all, committed to addressing this issue. A large share of the industries operating in countries affected by illegal logging and other forest crime are not engaged in any meaningful way. This is the case especially with industries exporting to less environmentally sensitive markets and/or for domestic consumption. Much more needs to be done to fully capitalize on the opportunities available under FLEG. Some of the more specific considerations include:

- **Expressions of political commitment have value, but this needs to be better exploited:** National FLEG constituencies are beginning to take root through the actions of NGOs and other international agencies including bilateral memoranda of understanding. However, there is a need to foster these further by encouraging ownership at the country level and by continuing to actively engage with governments of key countries uncommitted or only marginally committed to the ministerial declarations. It is also necessary to keep the momentum of these processes going by maintaining senior level policy-making (ministerial-level) involvement and follow-up ministerial meetings to take stock, re-endorse, and further develop the FLEG declarations.
- **FLEG processes have been largely isolated from the mainstream of the international criminal justice regime:** FLEG ministerial meetings have not involved agencies with broad multisectoral oversight or criminal justice responsibilities. The recent ENA FLEG declaration is the only one, for example, to take note of the UN Convention on Transnational Organized Crime. Systematic development of these linkages should be high on the forest law enforcement and governance agenda.

- **Regional discussions of common law enforcement problems have yet to identify or mobilize significant opportunities for multilateral enforcement action:** Apart from identifying a limited number of potential areas of true multilateral cooperation (customs enforcement, certification, and so on), where implementation measures are under discussion, FLEG regional processes have generated disappointment among some stakeholders for not having developed regional enforcement mechanisms as such. Clearly, there is a need to better motivate producer and consumer countries to collaborate to implement multilateral action. Better involvement of the regional development banks, and integration of the follow up of the ministerial conferences in the work programs and high-level meetings of institutions can help advance the development of such regional agendas, such as ASEAN; the International Tropical Timber Organization (ITTO); COMIFAC; MCPFE; Food and Agriculture Organization (FAO) regional forestry committees; UN Economic Commission for Europe (UNECE), Timber Committee; and the UN Forum on Forests (UNFF; emerging regional work programs).

- **Regional FLEG processes have to be made a strong force in supporting effective reforms of national level enforcement:** Despite some effort to utilize FLEG follow-up meetings to promote exchange of experience, technical practice, network building, and other formal and informal technology transfer, this has developed only recently and in limited ways. A perhaps false dichotomy is perceived separating technical aspects of law enforcement and governance from political and policy aspects rather than seeking a merger and reconciliation of these two important dimensions.

### Multilateral and Bilateral Initiatives and Programs

#### International Law Enforcement Cooperation

A serious barrier to investigating transnational crimes is that governments have exclusive sovereign power nationally and almost none elsewhere. Countries affected by these forest crimes involving transnational dimensions differ in their political, social, economic, and legal systems and cultures that generate friction for the police and other enforcement agencies. Enforcement powers are severely restricted when a criminal investigation crosses the border, and investigative efforts are complicated by a lack of understanding of political and legal structures and language. Frequently there is confusion about who has jurisdiction. Without agreements governing cooperation, these situations create many opportunities for domestic and international organizational conflict among law enforcement agencies, jurisdictions, and countries.

The development of transnational cooperation is an increasingly common response to transnational organized crime. Cooperation is defined by high-level bilateral and multilateral assistance treaties with other nations through which states may agree to exchange subject matter experts and investigative expertise and to provide training for police. Treaties set out rules for the sharing of intelligence and other evidence and for determining jurisdiction in specific cases. They establish standards for investigative...
methods, the extradition of offenders, and the imposition of sanctions.

Political will must exist among senior officials in a country to target transnational organized crime and to develop the cooperative relationships required for successful investigations and prosecutions. Many poor countries and emerging democracies lack this basic infrastructure, and other barriers are corruption, nationalism, whether treaties governing law enforcement processes can be negotiated, and whether domestic policy objectives conflict with the development of common law enforcement goals (Reuter and Petrie 1999).

Recent developments in these areas which may prove important in forest law enforcement and governance include the UN Convention Against Transnational Organized Crime and the UN Convention Against Corruption. The former is a legally binding instrument committing ratifying states to a series of measures against transnational organized crime, including the creation of domestic criminal offences to combat the problem, the adoption of new frameworks for mutual legal assistance, extradition, law enforcement cooperation, and technical assistance and training. (See box 3.6 for details on key provisions.)

**Forest law enforcement and governance: UN organizations and international agreements**

The UNFF has kept the problem of illegal harvesting of forest products and associated trade high on its agenda since the issue was first raised in the mid 1990s. Governments at the 2002 World Summit on Sustainable Development called on UNFF to “take immediate action on domestic forest law enforcement and illegal international trade in forest products.” At its second and third sessions, in 2002 and 2003, the UNFF adopted resolutions on measures to

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**Box 3.6. Convention Against Corruption**

The UN Convention Against Corruption has provisions addressing four key issues:

- **Prevention:** It promotes prevention of corruption, with measures directed at both the public and private sectors through measures, such as the establishment of anticorruption bodies and enhanced transparency in the financing of election campaigns and political parties. States must endeavor to ensure that their public services are subject to safeguards that promote efficiency, transparency, and recruitment based on merit. Once recruited, public servants should be subject to codes of conduct, requirements for financial and other disclosures, and appropriate disciplinary measures. Transparency and accountability in matters of public finance must also be promoted, and specific requirements are established for the prevention of corruption, in the particularly critical areas of the public sector, such as the judiciary and public procurement. Those who use public services must expect a high standard of conduct from their public servants.

- **Criminalization:** It requires countries to establish criminal and other offences to cover a wide range of acts of corruption and goes beyond previous instruments of this kind, criminalizing not only basic forms of corruption such as bribery and the embezzlement of public funds but also trading in influence and the concealment and laundering of the proceeds of corruption. Offences committed in support of corruption, including money laundering and obstructing justice, are also covered.

- **International cooperation:** Countries agreed to cooperate with one another in every aspect of the fight against corruption, including prevention, investigation, and the prosecution of offenders. Countries are bound by the convention to render specific forms of mutual legal assistance in gathering and transferring evidence for use in court to extradite offenders. Countries are also required to undertake measures that will support the tracing, freezing, seizure, and confiscation of the proceeds of corruption.

- **Asset recovery:** Asset recovery, which is a fundamental principle, is particularly important issue for many developing countries where high-level corruption has plundered the national wealth. Effective asset-recovery provisions will support the efforts of countries to redress the worst effects of corruption while sending a message to corrupt officials that there will be no place to hide their illicit assets.
be taken at the national and international levels to strengthen legislative frameworks, to build enforcement capacity for monitoring and control and to create verification techniques to help control illegal logging. Subsequently, at the fourth and fifth sessions of the UNFF, illegal logging and associated trade issues were considered in terms of their impacts on local communities and their sources of livelihoods. The Forum Secretariat has developed active relationships with regional FLEG processes, and has been working with civil society to bring their experience into the policy discussion. In February 2006, member states reaffirmed their commitment to forest law enforcement and governance at the UNFF’s sixth session.

ITTO has also advanced the forest law enforcement and governance agenda. In 2001, the International Tropical Timber Council, the governing body of ITTO, decided to help producing countries devise their own measures on forest law enforcement, and since then both analytical studies and conferences have been conducted on this topic. Further, ITTO has financed US$5.7 million in governance-related activities across 10 projects. The recently renegotiated (January 2006) International Tropical Timber Agreement contains a specific reference to strengthening the capacity of members to improve forest law enforcement and governance, and address illegal logging and related trade in tropical timber. This is the first legally binding international instrument to address illegal logging and in this sense can be considered a milestone for forest law enforcement and governance.

Together, ITTO and the FAO published a 2005 report on best practices (FAO 2005) and are currently implementing a set of regional workshops based on this publication. Other FAO activities in this area include, joint organization of a workshop on forest law enforcement and governance with the UNECE, Timber Committee in 2004, and including this issue on the agenda of the FAO regional forestry commission meetings.

CITES aims to control the international trade in certain critically endangered species and to regulate and monitor trade in other species that are believed to be vulnerable to over exploitation. By extension, it could have a role in combating illegal logging, especially when the operational definition of domestic sustainability includes considerations against illegal logging. In practice, the role of CITES in combating illegal logging is limited because of the relatively specialized species included in its appendices, and because the tracking of the chain of custody from the forest to permit application is seldom implemented (Chen 2006).

The inclusion of illegal logging and other forest crime on the agendas of these intergovernmental forest policy-related forums (in the case of ITTO with a mandate on trade) is a clear sign of the increasing openness that governments have to discuss and address these issues in intergovernmental dialogue. Together with the more active role that the formal regional bodies have taken, this is likely to reduce the future need for ad hoc or parallel high-level meetings for the purpose of establishing high-level political commitment. However, owing to the lack of or limitations to effective civil society and industry participation in these forums, the need for more inclusive political processes can not be entirely ruled out. At minimum, however, meetings will focus less on general statements and declarations (already addressed by these more formal forums) and more on concrete and specific commitments on action based on these.

**European Union Regulation and Action Plan on Forest Law Enforcement and Trade**

The European Union (EU) Regulation on FLEGT was approved by the member states in December 2005 and is now operational. The regulation is supported by a FLEGT action plan emphasizing EU support for improved governance in wood-producing countries, and a licensing scheme to ensure only legal timber enters the EU. In 2005,
the EU initiated financing for seven projects totaling €20 million supporting the FLEGT action plan, implemented by international NGOs, including also a trust fund provided for the Bank for the facilitation of the regional FLEG processes.

An essential part of the EU FLEGT is the negotiation of Voluntary Partnership Agreements (VPAs) between the EU and interested timber producing countries. VPAs aim to develop an understanding between producing and importing countries that only timber originating legally will be exported and allowed to be imported under the partnership. Such agreements are currently under negotiation in Cameroon (led by Germany), Congo and Gabon (led by France), Ghana (led by the United Kingdom), Indonesia (led by the European Commission), and Malaysia (led by the Netherlands). It is evident that, if successful, the implementation of the VPAs will result in an increasing demand for country-level financing in such areas as strengthening and reforming laws, regulations, and institutions in the forest sector, strengthening the capacity of indigenous and rural communities to manage forests sustainably, independent certification of sustainable forest management, implementation of timber tracking systems, forest products and trade-related information and statistics, and monitoring of forest cover changes to detect illegal activities. This will provide both the need and opportunities for improved collaboration between bilateral and multilateral financing institutions, including for the Bank.

**Bilateral Initiatives**

Several industrialized countries have launched their own initiatives aimed at reducing illegal logging in affected countries. In the United States, for example, in 2003, President Bush launched an Initiative Against Illegal Logging as a means to assist developing countries to combat illegal logging, the sale of illegally harvested timber products, and corruption in the forest sector. The initiative focuses geographically on the Congo Basin, the Amazon Basin, and Southeast Asia, and emphasizes good governance, community-based actions, technology transfer (for example, integrated monitoring systems), and harnessing market forces to promote transparent and legal practices in the sector. The United Kingdom and Germany are implementing similar programs.

Many other bilateral agencies are also actively involved in financing forest law enforcement and governance-related projects and programs, either as stand-alone activities or coordinated with broader programs. All of these bilateral initiatives have been important partners in the regional FLEG processes, and several have provided resources for the Bank to enable effective facilitation of specific events. In many countries there is active collaboration and considerable synergies between the bilateral country programs and the Bank’s efforts in this area.

**Government Initiatives to Promote Responsible Timber Procurement**

Several, particularly European, countries have for a number of years used government procurement policies as a means to encourage the use of sustainably and legally harvested timber and wood products. Germany, for example, has since the 1970s required sustainable tropical timber for federal building projects, and more recently several authorities at state and municipal levels have adopted similar procurement policies. In 1997, the United Kingdom issued voluntary guidance advising government departments to purchase timber products from sustainable and legal sources, and in 2000 announced that this was to become a binding commitment. In 2003, Denmark published voluntary guidelines for public procurement of tropical timber. France developed a timber procurement policy favoring Forest Stewardship Council and equivalent certified timber in 2002, and the Netherlands has a similar policy in place (Brack 2005). Outside of Europe, Japan has introduced a government procurement policy favoring wood and wood
products that have been harvested in a legal and sustainable manner, and has issued a Guideline for Verification of Legality of Wood and Wood Products to support the verification of legality and sustainability (box 3.7).

As discussed in the previous chapters, there has been a close link between these demand-side actions and the regional FLEG processes. On the one hand, the same governments pioneering these approaches have been active promoters of the FLEG and, on the other hand, the ministerial declarations have committed them to moving forward with action in their own countries and helped to extend this approach toward other consumer countries.

### Civil Society and Private Sector Initiatives

International NGOs play an important role as partners to promote forest law enforcement and governance. Their efforts are especially notable in:

- Increasing awareness of the extent and impacts of illegal logging and other forest crime at the global, national, and local levels
- Engaging in advocacy to combat this issue
- Conducting research and analysis contributing to an understanding of the scope and causes of and potential solutions to forest crime

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**Box 3.7. Outline of Japan’s Guideline for Verification of Legality and Sustainability of Wood Products**

1. **Summary**
   
   This guideline indicates several points to which the supplier of wood and wood products should pay proper attention when they verify legality and sustainability of their supplies.

2. **Definition (Outline)**
   
   (i) **Legality**
   
   The timber should be harvested in legal manner consistent with procedures in the forest laws of timber producing countries.

   (ii) **Sustainability**
   
   The timber should be harvested from the forest under sustainable management.

   (iii) **Methods of Verification (Example)**
   
   - Forest Certification and Chain of Custody
   - Verification under the authorization of industry association
   - Original method of each company

   The three methods described in the Guideline are example, and other methods [having] the same level of reliability as these three methods may be acceptable.

3. **Preservation of Documents Concerned**

   Documents concerned should be preserved during definite terms.

4. **Assessment and Review**

   This guideline would be assessed and reviewed after enforcement.

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Helping governments, industry, and local civil society groups to find ways of addressing forest crime.

Among others, the International Union for the Conservation of Nature and Natural Resources (IUCN) and the World Wide Fund for Nature (WWF) have taken an active role in forest law enforcement and governance both as regards the international FLEG processes (for example, IUCN has facilitated effective civil society participation in the ministerial conferences) and in terms of concrete interventions to pilot approaches to forest law enforcement and governance at the national level (box 3.8).

Global Witness and the Environmental Investigation Agency are two of the main NGOs involved in investigating forest crime at the national level, and have also played important advocacy roles internationally. Greenpeace likewise has been active in awareness raising and advocacy, and several other NGOs (for example, Forest Trends and FERN) are carrying out analytic, advisory and advocacy work. The Forests Dialogue, an NGO hosted by Yale University, has served as a facilitator of an industry-NGO dialogue on illegal logging and other forest crime both at the national level in affected countries and during the FLEG regional ministerial processes. On the national level, the number of NGOs involved in forest law enforcement and governance activities is too large even to attempt mentioning the most important actors.

A number of nongovernmental research institutions are engaged in important analytical work regarding forest crime. The Center for International Forest Research (CIFOR), in collaboration with several bilateral and multilateral development agencies, has a dedicated research program on forest law enforcement and governance issues (See box 3.9.) Other prominent international research institutions with forest law enforcement and

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**Box 3.8. IUCN Program on Illegal Logging**

The IUCN’s forest law enforcement and governance vision is to promote locally and nationally appropriate forest governance arrangements that directly improve local livelihoods and deliver sustainable forest management. Its vision is based on the principles of equity, transparency, participation, and action. IUCN’s objective is to catalyze the implementation of forest law enforcement and governance-relevant actions that have been jointly prioritized by key government, private sector, and civil society actors and that are capable of achieving demonstrable impacts. In working toward this objective, IUCN employs a tripartite approach where government, industry, and civil society stakeholders work together to find and implement solutions. IUCN also works to strengthen policy-practice linkages. IUCN has eight full-time professional staff devoted to forest law enforcement and governance in Africa, Asia, Latin America, and the Commonwealth of Independent States. IUCN’s priorities are to:

- Raise awareness of, and commitment to, forest law enforcement and governance among NGOs, communities, and other stakeholders
- Strengthen civil society input to official FLEG processes
- Support tripartite national action plans on forest law enforcement and governance
- Pilot test innovative governance approaches in the field
- Provide information, tools, and training to key actors who have a role to play in implementing forest law enforcement and governance reforms
- Address legal, economic, and institutional constraints to implementation
- Identify and respond to the specific constraints that governments face in implementing cross-border control of illegally logged timber
- Proactively capture and share lessons learned

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SUPPORT FOR STRENGTHENING FOREST LAW ENFORCEMENT AND GOVERNANCE

Box 3.9. CIFOR Research Program on Forest Law Enforcement and Governance

Goal: CIFOR’s goal is to contribute to the reduction in illegal forest activities by fostering good governance, through research on:

- Causes of illegal forest activities
- Impacts on livelihoods, the environment, and the economy
- Policy options and processes leading to their adoption, implementation, and enforcement

Strategy: CIFOR seeks to work in partnership with international organizations, governments, NGOs, the private sector, and research institutions in southern and northern countries to develop practical policy options, and to support their adoption and implementation by providing world-class research outputs, organizing and participating in policy forums and workshops, and through capacity building for impact-oriented research.

Focal research issues:

- Causes of illegal forest activities and policy and market failures
- Impacts of illegal forest activities and law enforcement on livelihoods, and how increased rural peoples’ control over forest resources may be harnessed to reduce illegal forest activities
- Relationship between trade and illegal forest activities, and how market mechanisms and nonmarket mechanisms may be used to control illegal forest activities
- How public policy failures may be reduced through improvements in accountability and transparency and thus reducing illegal forest activities
- Opportunities and constraints presented by formal and informal policy processes to the adoption of policy options, their implementation, and enforcement

CIFOR (2005) discusses the use of anti-money laundering laws to fight illegal logging. Among other issues it discusses some forest crime money laundering typologies.


governance-related research activities include Chatham House (Royal Institute of International Affairs, U.K.) and the European Forest Research Institute. These institutions offer excellent opportunities for collaboration on analytic work on illegal logging and dissemination of information through their outreach mechanisms to international and national-level actors engaged in forest law enforcement and governance.

World Resources Institute has focused especially on developing approaches for monitoring forest cover changes and detection of illegal activities in the forests through remote sensing technologies. The Program on Forests, a multidonor trust fund program housed at the World Bank, includes governance as one of its thematic focus areas and has already collaborated with several of these initiatives, providing financing for specific research projects and contributing to outreach activities.

Where the private sector is concerned, there are several examples of working toward codes of conduct that ensure the legality of timber, some of them implemented in collaboration with international NGOs. A number of trade federations across Europe and in the United States have been working on behalf of their members to improve corporate governance and transparency in timber trade. As an example, the U.K. Timber Trade Federation is developing a Code of Conduct and a Responsible Purchasing Policy that will act as a fast track for companies wanting to comply with the U.K. government requirements (Gulbrandsen and Humphreys 2006). The Confederation of European Paper Industries (CEPI) launched its Legal Logging Code.
of Conduct for the Paper Industry during the ENA FLEG Ministerial Conference in November 2005 (box 3.10). The WWF Global Forest Trade Network has established buyer groups in some 20 countries committed to sourcing increasing quantities of certified forest products for its members. Such entities as the Tropical Forest Trust work to link directly buyers with producers of certified sustainable (and hence legal) wood, or with producers whose procurement chain is moving toward sustainability.

Some of the major international forest products’ companies, such as Stora Enso, or companies that are major purchasers and sellers of wood products, such as IKEA, have actively engaged with the regional FLEG processes, and invest in collaboration with NGOs and development of verifiable and externally audited timber procurement chains verifying the legality of their timber and wood products (box 3.11).

Despite these encouraging trends, it needs to be recognized that much of the forest products industry still purchases its timber and other wood-based raw materials without any mechanism to verify the legality (or sustainability) of these products. Many forest industry projects are financed without due diligence regarding the legality and sustainability of the timber they use. Collaboration with the progressive elements of the industry and its associations, and efforts to sharpen the due diligence on forest industry financing as regards the legality and sustainability of timber, continues to be a challenge, especially as regards companies that operate on the less environmentally savvy markets (that is, markets outside of Europe and the United States).

Summary Assessment of Forest Law Enforcement and Governance in the World

There is a groundswell of activity—national and international, public, and private—related to illegal logging and other forest crime and addressing underlying broader forest governance issues. The regional FLEG processes have provided a forum for the various actors and stakeholders to come together, work to build synergies, and create new opportunities for cooperation. Much is being done to study
Corporate codes of conduct are voluntary initiatives by which corporations, either independently or as members of associations, commit themselves to follow self-defined principles of social and environmental responsibility. This also often includes compliance with the laws of countries in which they operate.

Stora Enso, a European timber and paper company, actively works to combat illegal logging and related illegal activities where it operates. The company’s strategy to ensure the legal origin of its wood purchased in Russia includes:

- Recognizing and analyzing the risks related to legality and sustainability issues
- Focusing on long-term partnerships and investments
- Having local representative networks
- Increasing its own logging operations
- Keeping the supply chain as short as possible
- Offering training and cooperation to promote supplier’s awareness of sustainability issues
- Having active stakeholder dialogue and development projects

IKEA has developed a “staircase model approach” to promote legal and sustainable forestry among its suppliers. Requirements include the legal sourcing of wood products. IKEA, in partnership with WWF, has developed a wood tracking system to ensure that there are no leakages along the chain of custody. The partnership has also established producer groups committed to extracting only legally sanctioned harvests.

While it is too early to assess the impact of such initiatives, they are likely to become increasingly important instruments in the fight against illegal logging and forest corruption.

Sources: Jantunen (2006); FAO (2005).

and understand the problem of forest crime, particularly illegal logging, to raise awareness of its scope and consequences and to develop and test approaches to address these issues at the country and local levels.

Several timber importing countries—though by no means all of the most relevant ones—are taking important steps to reduce and ultimately eliminate international demand for illegally harvested wood. International organizations are promoting collaboration and political will among their members in addressing forest law enforcement and governance. Some forest products companies are engaged in efforts to ensure the legality of their operations.

What is missing then? Where are the major needs for strengthening this collaboration to achieve concrete results on the ground? One of the more obvious gaps is the weak link between the forest sector efforts and the broader attempts to promote good governance and combat organized crime. Forest law enforcement and governance efforts, both at the country level and within the FLEG processes, are still to a large extent limited to the forest sector, including primary and secondary production and trade, while often important tools and experience to address these issues are outside the sector.

Some of these broader issues and potential linkages are discussed in the next chapter. Given the wide scope of the topic, this discussion is limited to those approaches and initiatives where the Bank is a major partner, and consequently where the possibilities for immediate action to create synergies are most promising. The Bank’s broad and deep involvement in these issues should, however, ensure that the most relevant initiatives and approaches are captured.
Over the past three decades, the World Bank has amassed significant experience in the forestry sector. This chapter discusses the evolution and current state of Bank involvement in forest law enforcement and governance. It also describes work in other sectors as the Bank sharpens its focus on governance issues. Finally, the chapter indicates where the Bank is heading in addressing forest law enforcement and governance within the institution and identifies potential areas of synergy between the Bank’s forestry program and its broader governance-related initiatives.

**World Bank Lending and Advisory Services**

Prior to 1978, the Bank’s work in forestry was sporadic and limited to a very few industrial forestry-oriented plantation and forest engineering projects as well as small forestry components associated with multifaceted agriculture and rural development projects. From 1978 forward, the Bank departed into a new direction, trying to catalyze forestry in support of poverty alleviation and environmental quality. A particular issue that emerged early on was the wood energy dependence of the rural poor, the burdens imposed, especially on women, of declining wood supplies, and the potential role of community mobilization in improving forestry outcomes.

It was recognized that a large share of fuelwood consumed by poor people was collected outside of formal forestry management and institutions and often from lands not formally recognized as forests. While seldom explicitly addressed as an issue of law enforcement, there was recognition that forestry agencies (especially in Africa and India) traditionally had a police orientation and were frequently in conflict with local people and forest-dependent communities. Forestry agencies and personnel in these countries often considered subsistence use of forest by the poor as pilferage, and saw expansion of subsistence agriculture into forest areas as a major threat. A theme that underlay Bank forestry work at the time, as well as much of the international thinking on forestry, was that forestry was excessively dominated by a policing and controlling mentality and needed to be reoriented to a development focus that saw people and their behavior as the basis for sector development.

The analysis and vocabulary of the time was dominated by notions of the tragedy of the commons, open access externalities, and collective action. In terms of operational designs, this took the Bank into a social and community forestry portfolio that eventually exceeded 36 projects totaling nearly US$1 billion between 1979 and 1990 (OED 1991).
During this time, Bank involvement was more limited in forest-rich countries, to some extent because of a usually unstated recognition of serious governance problems, which to the extent they were acknowledged at all, were referred to with euphemistic code words such as “rent-seeking.” Illegal logging was not given serious or lasting attention, either within the Bank or in the forest community generally. The relative wealth and prosperity of forest agencies in particularly well-endowed countries was certainly recognized but, as with corruption generally, was not considered an appropriate or relevant concern for the Bank or development policy.

The earliest explicit attention to forest crimes in Bank project design was in the Philippines in 1983 (box 4.1), and in general these issues started to appear in a more systematic way in project design in the 1990s. The Bank’s explicit attention to forest law enforcement and governance has gradually grown and has become more technically and institutionally sophisticated. Adjustment operations in Papua New Guinea in the 1990s supported introduction of private sector administration of log export taxation. Work in Cambodia in the late 1990s involved the first use by the Bank of forest law enforcement professionals in policy analysis and project design. Experiments in third-party independent monitoring of forest crime reporting, support for case tracking systems, and recommendations for timber theft prevention planning were

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**Box 4.1. Forest Law Enforcement in the World Bank Forest Sector Work in the Philippines**

In the Central Visayas Regional Project, FY1983, forest destruction was addressed as an attribution to illegal occupancy on logged-over areas with attendant use of fire for land clearance. The project employed a social forestry approach that aimed to stabilize land use by securing tenure rights and providing development services to communities that, nonetheless, were seen (by the government and the Bank) as “illegal forest occupants.”

Evolving out of this experience, the subsequent Philippines Environment and Natural Resource Sector Adjustment Program, FY1991, contained further elements of a more refined approach to communities, as well as the first Bank support to substantial efforts to confront large-scale illegal logging.

The operation supported policy and investment work in social forestry and tenure regularization and provided support to a strategy for improved enforcement in areas where illegal operations were prevalent. It aimed to help the Department of Environment and Natural Resources intensify direct management presence within the forests, implement a plan for an intensive monitoring and enforcement, and provide technical assistance. Innovative features included:

- Cooperation with the Department of Justice to speed up prosecutions and reduce obstructionism of local courts
- Cooperation with the Department of Interior and the local government to assist in apprehensions, including a mobile strike force and involvement of the Philippine national police in monitoring committees at all levels
- Introduction of a multiple-point monitoring system including surveillance at lumber mills, aerial surveillance of forests to identify illegal cutting and processing, and ground surveillance of access and transport routes
- Program monitoring by committees at central, regional, and provincial levels, including central and local government, military, church, and other NGO representation
- Legal services to ensure well-prepared court cases, through contract hiring of lawyers and assistance in prosecutions
- Provision of adequate transportation and communications equipment to field personnel responsible for enforcement
- Programs to win community support and defuse the livelihood issue, such as targeting various existing government programs to generate constructive means of livelihood

The Multi-Sector Forest Protection Committees developed under the operations were considered one of the most successful efforts of the project and eventually grew to a nationwide system, but proved largely unsustainable because of budget constraints following completion of the program.
among the innovations. In Africa, similar work including independent monitors was developed in Cameroon, and timber and post conflict issues are now being addressed in Liberia.

**Country Assistance Strategies**

To examine the extent to which forest law enforcement and governance and related issues are taken into account in Bank Country Assistance Strategies (CASs) today, a review of the most recent CASs for 18 forest-important countries was carried out.\(^{11}\) These 18 countries represent 75 percent of all forests in developing countries.

Seventeen of 18 CASs mention forestry, with 11 containing explicit forestry components. Nine CASs mention forest law enforcement and governance issues specifically, with at least seven outlining forest law enforcement and governance activities (both lending and nonlending) to be undertaken. Five CASs link deforestation to governance issues, and six describe linkages between poverty and deforestation.

**Lending operations**

There are currently more than 50 active forestry projects in the Bank’s lending portfolio, with a total cost of US$2.7 billion and total Bank commitment of US$1.6 billion. A November 2005 assessment of these projects shows that some 35 projects have clearly identified forest law enforcement and governance components, totaling an estimated US$310.8 million.\(^{12}\) Thus, forest law enforcement and governance activities accounts for 11 percent of total project costs across all 51 forestry projects, and 22 percent of total project costs for the 35 projects with forest governance components (see table 4.1).\(^{13}\)

In terms of specific forest law enforcement and governance activities, some of the areas of forest governance addressed in Bank projects are:

- Development of national level forestry policies and management plans
- Capacity development for public agencies to better address forest crimes

### Table 4.1. Forest Law Enforcement and Governance Components in the Forestry Portfolio, by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number of projects</th>
<th>Number of fleg projects</th>
<th>Total cost (US$ millions)</th>
<th>Cost as percent of total forestry portfolio</th>
<th>Bank commitment (US$ millions)</th>
<th>Fleg amount (US$ millions)</th>
<th>Fleg as percent of total forestry portfolio</th>
<th>Fleg as percent of total fleg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>9</td>
<td>5</td>
<td>515.1</td>
<td>19</td>
<td>289.7</td>
<td>108.9</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td>East Asia/Pacific</td>
<td>8</td>
<td>7</td>
<td>772.9</td>
<td>29</td>
<td>431.1</td>
<td>40.3</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Europe/Central Asia</td>
<td>11</td>
<td>9</td>
<td>396.5</td>
<td>15</td>
<td>265.6</td>
<td>32.7</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Latin America/Caribbean</td>
<td>19</td>
<td>13</td>
<td>691.9</td>
<td>26</td>
<td>328.8</td>
<td>123.1</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td>Middle East/North Africa</td>
<td>3</td>
<td>0</td>
<td>203.5</td>
<td>8</td>
<td>139.5</td>
<td>0.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>South Asia</td>
<td>1</td>
<td>1</td>
<td>1271</td>
<td>5</td>
<td>108.2</td>
<td>5.8</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>35</td>
<td>2707.0</td>
<td>100</td>
<td>1562.9</td>
<td>310.8</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>

*Note:* In the interest of space, this table uses a lowercase abbreviation (fleg) for forest law enforcement and governance. Here, fleg should be taken as individual activities, projects, or initiatives related to the broader issue, and should not be confused with multistakeholder FLEG processes.
STRENGTHENING FOREST LAW ENFORCEMENT AND GOVERNANCE

• Support public awareness activities
• Support for natural resource inventories activities, transparency in concession allocation, forest certification, and chain-of-custody verification
• Development of forest law enforcement reporting and monitoring systems and provision of equipment and capacity development for staff responsible for management of protected areas

Examples of this work are presented in the boxes throughout this report.

Analytical and advisory activities and other nonlending activities

An essential and increasingly important part of the Bank’s contribution to development is the analytical and advisory activities carried out for client countries. These activities provide a foundation for defining strategic priorities and informing policy dialogue and decisions on projects and programs and comprise economic and sector work and nonlending technical assistance, knowledge management, as well as training and research services.14

Since issuing the 2002 Forest Strategy, the Bank has produced several important forestry-related publications that include discussion of forest law enforcement and governance issues (box 4.2).

The Bank also has prepared country-level forest sector reviews in several countries (see

Box 4.2. Recent World Bank Forest Law Enforcement and Governance-Related Documents

- “Tools for Civil Society Action to Reduce Forest Corruption”
- “Going, Going, Gone: The Illegal Trade in Wildlife in East and Southeast Asia”
- “Reforming Forest Fiscal Systems: An Overview of Country Approaches and Experiences”
- “Technologies for Wood Tracking: Verifying and Monitoring the Chain of Custody and Legal Compliance in the Timber Industry”

Box 4.3. Nigeria Forest Sector Assessment

While forestry constitutes only 2.5 percent of Nigeria’s gross domestic product, approximately half of the country’s population relies on the forest for energy, fodder, construction materials, income, and medicine. Between the 1960s and 1995, Nigeria’s forest cover decreased from 10 million hectares to 3.1 million.

“What are the specific and overriding problems in the Nigerian forestry sector? First, forest management is nonexistent and because of this the forests, even in the reserves, are degrading. Second, current revenues in the Nigerian forest sector are minimal because fees are set arbitrarily low and do not reflect the real market price of timber. Third, low timber prices and low fees, coupled with protectionist policies, such as the import tax and the log export ban, mean that the wood industry is inefficient, resulting in ore demand for wood which is met through illegal and other channels. Fourth, there is no relationship between forest planning, forest management, and the revenue system. Fifth, while we know a lot about the Nigerian forestry sector through several recent studies, there is a gap of knowledge in the area of appropriate policies for Nigeria, particularly fiscal policies. Without an appropriate forest fiscal policy and forest management system in place, forestry in Nigeria will inevitably be unsustainable, with low benefits to the state and, therefore, to communities. … Five issues are critical in transforming the sector: [1] Ruthlessly creating and funding effective forest management systems in each state; [2] reforming the forest revenue system on a state-by-state basis; [3] refining the legal and regulatory framework governing the management of forest land; [4] restructuring related sectors, such as the private sector wood industry to ensure economic sustainability and viability; [5] Strengthening the social safety net for the most threatened communities by developing alternative employment opportunities.”

Source: Excerpted from World Bank (2005g).
box 4.3) with a focus on forest law enforcement and governance. Further, as part of its analytical and advisory work, and as an integral part of its strategic approach to forest governance, the Bank has actively supported international and regional initiatives on forest governance, including the three regional ministerial FLEG conferences. At the country level, the Bank has supported the development of national-level action plans related to controlling illegal logging and improving forest sector transparency for Albania, Armenia, Bosnia and Herzegovina, Indonesia, and Russia. In some cases, Bank work related to investments in other sectors can also involve issues of illegal logging and forest governance (box 4.4).

**Linking Forestry to Broader Governance Issues Within the Bank**

Ever growing attention is being paid to governance and corruption issues within the Bank, as evidenced by Bank President Paul Wolfowitz’s Jakarta speech on the subject, and the recent Board paper on this topic (“Raising the Bar on Anticorruption: Improving Governance and Accountability, Fostering Development,” April 17, 2006), describing the Bank’s position and its emerging strategic approach to engagement with clients and bilaterals.

The Bank finances a vast array of investment and nonlending activity aimed at improved governance and public and private sector management. Indeed, the US$22.3 billion invested by the World Bank in FY2005 in the areas of law, justice, and public administration accounted for 24 percent of all International Bank for Reconstruction and Development/International Development Association (IBRD/IDA) lending (World Bank 2005c). Lending for public sector management alone represented US$9.6 billion—or 10.1 percent of total Bank commitments—at the end of FY2005. Identifying where the opportunities lie for cooperation among Bank Group units working on forest law enforcement and governance and broader governance reform is likely to be highly indicative as to where these synergies can be found in general. The emerging sense of urgency to tackle the governance issue at a corporate level provides a real window of opportunity to bring forest crime into the broader Bank focus on controlling corruption.

**Public Sector Governance**

The Bank’s Public Sector Governance program has three priorities:

- Support public sector reform through a combination of “voice” and partnership, competition, and internal rules and restraints
- Tailor reform interventions to institutional and political realities through systematic institutional and political assessments
- Investment in long-term institution building

Building on its Anticorruption and Public Sector Governance strategies, the Bank has...
developed a multipronged strategic framework for improving governance (figure 4.1).

Based on an OED assessment, the Public Sector Governance Group has identified five priority areas going forward:

• Integrate governance anticorruption in the design of sectoral reforms and operations and address capacity and skills gaps in sectors
• Develop a better understanding and management of political economy of reforms
• Tackle political corruption (party finance, electoral corruption, and so on) with partners
• Develop partnerships and new instruments to support demand-side initiatives (working with civil society, media, parliamentarians)
• Develop innovative pilots in leadership and ethics to empower critical mass of reform champions and strengthen shared commitment to public service

The Public Sector Governance Group has also identified a need to introduce differentiated strategies for low and high-risk countries, with more intensive support and oversight required for high-risk countries. Preliminary thinking about the approach in such countries suggests emphasizing:

• Governance diagnostic to support CAS, focusing on political corruption
• Focused interventions in governance in critical sectors, harmonized with other donors (or, if no sectoral entry point, community-driven development)
• Public financial management indicators to monitor country systems
• Country portfolio performance reviews
• Proactive engagement with the Bank’s Department of Institutional Integrity to minimize operational and reputational risks
With all the experience that it has gathered, the Public Sector Governance Group has concluded that, in high-risk countries where corruption is more endemic and well entrenched, focusing on sectoral entry points for governance reform and anticorruption initiatives is likely to get most traction. This is clearly of great relevance to efforts to improve forest law enforcement and governance since it allows for the possibility of using the forest sector as one such entry point, specially in countries where this sector is a significant part of the economy.

**Governance and Anticorruption Diagnostics**

The WBI has developed and is helping implement a governance and anticorruption (GAC) diagnostic assessment (box 4.6). The GAC assessment uses an integrated approach to capacity building, governance, and anticorruption that emphasizes rigorous empirical diagnostics and analysis, policy advisory services, collective action, and knowledge products.

Using a multidisciplinary approach and based on close partnership with stakeholders, WBI then applies action learning methods to link the diagnostic surveys, their application, collective action, and learning at the country level. The WBI governance team has been involved over the past few years in diagnostic work in several countries. Detailed diagnostic surveys and reports are available for eight countries (Albania, Cambodia, Indonesia, Latvia, Malawi, Romania, Slovakia, and Thailand). In addition, there is a large number of countries that collect not only the diagnostic survey results and the report, but also focus on follow-up initiatives developed and implemented locally. Several of these are priority forestry countries (especially Cambodia, Indonesia, Bolivia, Honduras, Brazil, and Madagascar). Including forest sector diagnostics surveys in these countries as a means of facilitating informed debate and building up a consensus for reforms on forest law enforcement and governance is an area where obvious synergies could be found.

**Financing Private investment**

The International Finance Corporation (IFC) is a major financier of private sector involvement in forestry operations in developing countries. In fact, IFC financing for forestry activities in FY2005 was more than double that of IBRD/IDA.

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**Box 4.5. Integrating Governance and Anticorruption Elements in CASs: Example of Ghana**

Governance and anticorruption are increasingly an area of focus in CASs. During FY1998–FY2001, about 75 percent of the CASs recognized corruption concerns explicitly or implicitly. This percentage had grown to 100 percent during the FY2002–FY2004 period. Now that the issue is in the mainstream, more attention needs to be devoted to improving effectiveness and results.

The Ghana CAS provides a good example of the evolving approach. Ghana is a country with a substantial incidence of corruption. The CAS used the Poverty Reduction Strategy Paper (PRSP) as a basis for describing the government's efforts at addressing corruption. It identified critical entry points as improving the ability of the parliament and other accountability institutions to perform oversight of the executive, decentralization of service delivery provision, improve local government and public expenditure management, and so on. The CAS identifies a full array of lending and nonlending instruments such as annual Poverty Reduction Support Credit, Citizen's Report Cards (for the education sector), loans for community-based and community empowerment projects, World Bank Institute (WBI) training programs for parliamentarians, anticorruption and judicial reforms, and so on, to achieve the targeted results related to improvement in public sector performance and control of corruption.

amounting to about US$250 million. It is therefore critical for the Bank and IFC to work together on issues related to illegal logging. IFC can support sound governance in the forest sector in two principal ways: through upholding its social and environmental sustainability standards in its operations and through promoting corporate social responsibility within the private sector.

In the operations it finances, the IFC places responsibility on the client for managing social and environmental risks and impacts in a manner consistent with IFC’s standards. A key part of the client’s role in this area is the company’s engagement with affected communities through disclosure of relevant project information, consultation, and informed participation. IFC’s role is to review client assessments of social and environmental risks; to assist the client in developing measures to avoid, minimize, mitigate, or compensate for social and environmental impacts consistent with IFC’s standards; to categorize projects in order to specify disclosure requirements; to help identify opportunities to improve social and environmental outcomes; and to monitor a client’s social and environmental performance throughout the life of the project. The IFC has recently revised its performance standards (see IFC 2006).

IFC also promotes corporate social responsibility through support for the Equator Principles, which are a voluntary set of guidelines for managing environmental and social issues in project finance lending. They are based on the IFC’s social and environmental standards and apply globally to development projects in all industry sectors with a capital cost of US$50 million or more. The Equator Principles were formally adopted by 10 international banks at IFC headquarters in 2003. Since then, more than 40 major international financial institutions...
have adopted the principles. The IFC and these other institutions will not provide loans to projects where the borrower will not or is unable to comply with their respective social and environmental policies and procedures that implement the Equator Principles.

Integrating explicit measures to prevent illegal logging and other forest crime in these processes would offer a concrete way to move the forest law enforcement and governance agenda, with private companies and with public and private financing institutions. Private sector financing institutions, including the IFC, should also consider ensuring the legality of the raw material flows as an important measure to mitigate financial and reputational risks involved in investments to increase forest industry production capacity. With the increasing attention given to the legality of timber and wood products both by public sector and private buyers alike, failure to demonstrate the legality of the purchased or harvested wood used as raw material for such products is a risk factor for the profitability of the investments. This is especially the case regarding companies aiming to export to environmentally sensitive markets. These risks need to be mitigated in the investment planning phase due diligence (for example, by assessing the availability of legal roundwood, domestic and possible imported, for the planned capacity expansion, and by encouraging certification as a market driven-tool to address both legality and the broader issue of sustainability).

Corporate Social Responsibility

Within the Bank/IFC’s Private Sector Development Vice Presidency, the Foreign Investment Advisory Service (FIAS) promotes CSR through advisory services to national governments on CSR frameworks to enhance their country’s competitiveness and attractiveness to investment. Specifically, FIAS is working with borrowing country governments to:

- Survey and analyze ongoing and planned corporate social responsibility activities in sectors most closely linked to national competitiveness
- Develop strategies to enhance transparency and accountability, and harmonize existing laws and regulations
- Design sector-specific educational and training opportunities
- Design approaches that maximize synergies between public sector inspectorates and supply chains’ monitoring and inspection schemes based on corporate social responsibility initiatives

The Corporate Social Responsibility Practice in FIAS provides project support to World Bank colleagues on a request basis in several ways:

- Identify ways in which CSR activities can be built into lending operations
- Undertake baseline diagnostic surveys of CSR activities in a specified sector in a given country and work with a country team to develop proposals and actions for CSR components of projects
- Provide recommendations on government roles that would support CSR activities
- Engage companies and/or industry sectors in CSR discussions with government
- Undertake follow-up diagnostics to assess project outcomes

Incorporating legality of raw material flows into CSR training, advisory work, and related lending operations and follow-up diagnostics, especially supporting small and medium industries in implementing cost-effective approaches for legality verification, would contribute both to ensuring the viability of these companies in the increasingly discriminating markets and in promoting legality and good forest governance.
Legal and Regulatory Reform

The Environment and International Law Unit of the Bank’s Legal Vice Presidency contributes to improved governance in several ways. The unit reviews projects to assess whether (a) projects are in compliance with the Bank’s safeguard policies, (b) there is need to assist countries in preparation of new environmental laws and regulations, and (c) projects are in compliance with relevant international conventions. The unit also works with IFC and other multilateral lending institutions to assess environmental policy and legal issues posed by private sector involvement in development projects. An important part of the unit’s work is providing advice to borrowing countries on development of environmental legislation. Such technical assistance has included assisting countries with forest use–related regulations.

The main synergies between the Bank’s legal and forestry expertise lie in developing guidance for assessing the quality of legal and regulatory frameworks and the strengthening of the capacity of public prosecutors to effectively close cases of forest crime (boxes 4.7 and 4.8). The Bank

Box 4.7. Forest Law: A Manual for Sustainable Development

There is widespread international consensus that improving legal frameworks is a critical part of addressing the multiple challenges facing forests. The legal staff of the Bank and FAO have prepared a manual on forest law to assist forests, economists, and other development professionals, as well as lawyers, to identify legal issues that impinge on forests (see World Bank, forthcoming). The publication attempts to provide a step-by-step guide to the full range of issues that should be considered in assessing the adequacy of forest legal frameworks, and presents options for addressing those issues. It is not intended to be prescriptive but instead to serve as a methodological tool, helping the development specialist understand how best to think through a particular problem and assess the relevant legal responses.

Box 4.8. Ad hoc Experts Meeting on Investigating and Prosecuting Illegal Logging Cases: Lessons Learned

While priority should be on prevention and deterrence of illegal logging, arson, wildlife crime, corruption, and other forest-based crimes, governments and the public need to be able to rely on investigatory and prosecutorial capabilities that can ensure compliance with the law and punishment of offenders. Globally, there is only very limited successful experience in the prosecution of violations of forestry law, and no track record of money laundering prosecutions based on forestry crime predicates. The ad hoc meeting in Manila in March 2006 was the first ever assembling the lessons of experience and assessing capacity building and related needs in the investigation and prosecution segment of the forest law enforcement system. Among other issues the discussions focused on ideas for enhancing the investigation and prosecution of illegal logging cases using money laundering, asset forfeiture laws, and interagency strike forces. The Manila meeting focused on a number of possible next steps and issues including:

• Developing a list of best practices, based upon the actual experience of others, would help investigators and prosecutors have the maximum impact in the prosecution of illegal logging cases.
• Identifying legal issues that cause problems including: statutes of limitations, evidentiary use of photographs and computer analysis, corporate liability, use of circumstantial evidence, presumptions regarding proving intent (for example, that the concessionaire intended to steal can be established by showing that the amount the company is logging in an area is in excess of the amount prescribed by permit, the concessionaire is cutting at odd hours, or the concessionaire is found outside of the area covered by the permit), and admission of global positioning systems evidence to prove encroachment.
• Developing specific ways to use anti-money laundering and asset forfeiture laws in illegal logging investigations and prosecutions.
• Developing points of contact among and between foresters, prosecutors, and investigators as a means to strengthen international cooperation in illegal logging cases.
recognizes that to effectively address forest crime, legal reform should include a broad range of stakeholders and assess legislation beyond just the forestry codes.

Getting the justice system to work better, particularly for the poor, is one of the most important tasks of legal and judicial reform in developing countries. The poor are often bypassed by justice systems, contributing to further impoverishment and insecurity and contributing to high levels of conflict and, sometimes, vigilantism and other violence. Most studies and development work on justice systems focus on formal legal institutions: the police, prosecutors, and courts. Reform proposals follow suit. Yet justice is not simply the realm of the state and its formal legal organs. Comprehensive strategies for improving poor people’s access to justice should thus encompass both formal and informal dispute resolution, starting with people’s experiences and not just the legal system.

The Bank is now supporting research action programs in multiple countries, including Indonesia and Cambodia, where natural resource crime and illegal logging are particularly serious, under the theme of Justice for the Poor. In doing so, it aims to:

- Understand the preferences and expectations of the poor in resolving disputes and defending their interests
- Identify patterns in the interaction between poor communities, village institutions, and the legal system
- Identify what factors enabled poor village communities to defend their interests successfully in an environment of institutional weakness

**Anti-Money Laundering/Combating the Financing of Terrorism**

In recent years, worldwide efforts to combat money laundering and the financing of terrorism have assumed heightened importance. Money laundering and the financing of terrorism are global problems that not only threaten security but also compromise the stability, transparency, and efficiency of financial systems, thus undermining economic prosperity.

The Bank’s objective is to provide support to client countries through technical assistance, assessments, knowledge sharing, and advocacy work to strengthen the integrity of the financial sector in the countries. The Bank has included anti-money laundering/combating the financing of terrorism as part of the development mandate in the financial sector as it relates to and reinforces its complementary work on governance and legal framework issues. In March 2004, the Boards of the Bank and International Monetary Fund (IMF) agreed to provide additional resources to support anti-money laundering/combating the financing of terrorism as part of the regular work of the Bank and IMF. The Boards approved an expansion of Bank/IMF responsibilities in both assessments and technical assistance to cover comprehensively the revised international standards established by the FATF.

The opportunity to launder proceeds from illegal timber operations is an important enabler underlying forest crime. Large-scale illegal logging generates significant proceeds. Anti-money laundering and asset forfeiture laws can help in the investigation and prosecution of illegal logging and other forest crimes, especially when money flows through financial institutions at some stage in its laundering. Promising initiatives harnessing the potential of the anti-money laundering laws to tackle forest crimes are developing in Indonesia. (See box 4.9.)

The Financial Market Integrity Unit (FSEFI) of the Bank provides, among other things, assistance on (a) design of the institutional framework (for example, regulatory frameworks for covered sectors), (b) legislative drafting, (c) supervision of financial institutions, and (d) financial intelligence units. (See FSEFI’s Web site at http://www.worldbank.org/amlcft.)
The Extractive Industries Transparency Initiative

Launched in 2003, the Extractive Industries Transparency Initiative (EITI) supports improved governance in resource-rich countries through the full publication and verification of company payments and government revenues from oil, gas, and mining. Today, some 20 countries in Africa, Latin America, and the Caucasus are implementing EITI to varying degrees, with an emphasis at this point on Africa. With a secretariat in London, the Bank provides technical expertise in implementation of the program.

The EITI process involves a commitment from government to:

• Increase transparency
• Create multistakeholder committees (including, importantly, civil society)
• Identify an independent administrator to undertake financial reconciliation of payments and receipts
• Disclose financial information from companies and government agencies
• Publicly disseminate and discuss the disclosed information
• Review the process

The Bank has found that the EITI process is most effective when there are well-defined streams of revenue going to government from the sector, as opposed to many different revenue flows. It also is helpful to have a limited number of actors (for example, concessionaires) who account for a majority of production. It has also proven very important to have strong commitment from the participating government. EITI is limited to reconciliation of payments from resource sectors to the government and does not concern itself with what becomes of that revenue. Nonetheless, despite the relatively narrow scope of the program, EITI has opened a dialogue on transparency issues in the involved sectors and has given participating countries confidence to tackle larger governance issues related to the resource sectors.

Though not directly related to illegal logging at this time, EITI may have scope to inform or at some future point incorporate efforts related to forest law enforcement and governance, especially in those countries where the forest sector is of major economic importance and relatively few big players dominate the sector.


On November 16, 2005, the Indonesian Ministry of Forestry, the Indonesian Financial Transaction Reports and Analysis Center and the World Bank sponsored a one-day workshop on the issue of fighting illegal logging through the implementation of the Law on the Crime of Money Laundering. This law (Number 25/2003) was enacted in 2003 as a revision to the original law (Number 15/2002) on the Crime of Money Laundering. While the original law was a milestone for addressing money laundering in Indonesia, it was revised to, among other things, expand the list of predicate offenses to include forestry and environmental laws. The workshop offered the first opportunity to bring law enforcement, foresters, and the financial sector together to discuss issues, seek ways of collaboration using the new legal tools available, and to establish a concrete course of action for the future. Two basic recommendations were formulated:

• An interagency body should be established to address policy and regulatory issues relating to the connections between illegal logging and money laundering.
• A task force of investigators and prosecutors should be established specifically to pursue illegal logging cases involving money laundering and corruption.
Emerging Directions of the Bank in Forest Law Enforcement and Governance

Forest Law Enforcement and Governance in Operations

Although only 10 percent of Bank forestry project commitments can be ascribed as direct support to forest law enforcement and governance, in the broader and more important sense that underlies the view here of the contribution of governance and the rule of law to forest sector development, essentially all of the Bank’s work in forestry supports the forestry law enforcement and governance agenda. The Bank’s work on plantation expansion addresses, if incompletely, redressing supply and demand imbalances, and the Bank’s forest sector work has long addressed issues of forest revenue systems reform, rent recovery and timber taxation, balanced and market-based approaches to forest industries development, and expanded community control of forest resources. These approaches, if done correctly, are all fully consistent with and supportive of a humane and socially responsible approach to forest crime prevention. Aside from doing more, doing better in these established areas of sector development is central to the Bank’s future work in forest law enforcement and governance.

What follows are trends that are emerging in the Bank’s work in forest law enforcement and governance.

Bringing the Bank Group’s efforts in forest law enforcement and governance and broader governance reforms together to gain improved synergies.

As discussed in earlier chapters, the forestry portfolio is nested within the Bank’s overall approach to governance and anticorruption and is consistent, if not fully aligned, with the wide range of governance work being led by other sectors in the Bank. Some of the more relevant work of other parts of the Bank Group on governance include support to PRSP processes and the alignment of the Bank’s CAS with these processes, work on governance diagnostics and integration of governance and anticorruption elements in the CASs, and the design of specific capacity building programs based on the diagnostic surveys (Poverty Reduction and Economic Management Network and WBI). Other relevant areas of the Bank’s work focus on anti-money laundering and financial investigation (FSEFI), EITI, Justice for the Poor, and customs modernization. The Department of Institutional Integrity’s investigatory approach to allegations of corruption in Bank-funded projects provide potentially powerful instruments to combat illegal logging and forest crimes. The Bank’s legal department is carrying out important work in developing a benchmark study for assessing the quality of legal and regulatory frameworks.

Similarly, some of the work with corporate social responsibility and social and environmental issues in the operations of the IFC (for example, investment safeguard policies) is extremely relevant to the forest law enforcement and governance issues. On the legal side, the 2006 Bank legal opinion on criminal justice discusses the development justification for Bank involvement in criminal justice, provides a categorization scheme to guide determining the Bank’s potential role in specific circumstances, and proposes development of guidelines and process for review of Bank activities. The opinion reinforces the longstanding Bank approach of basing its activities on an economic rationale, avoiding political interference and involvement in particular criminal cases.

The forestry work of the Bank Group needs to be more consciously informed by and aligned with these initiatives. The expertise accumulated in these specialized fields has only rarely been brought to bear on the problems of forestry. Where it has, as, for example, in the area of anti-money laundering, it is clear that there is enormous potential, but also very substantial transactions...
costs involved in working across sectoral lines. There is particularly a need to strengthen joint analytic work across the Bank’s organizational boundaries, familiarize specialists from other areas to the special circumstances of forestry, and improve the understanding among external stakeholders of the relevance of these tools.

**Systematically integrating forest law enforcement and governance issues in country forestry dialogue**

Most of the Bank’s important forest sector client countries are also affected by severe governance problems in general. In these situations, promoting transparency of information and civil society participation are key issues in combating illegal logging and forest crime, as is focusing efforts to combat high-level corruption. Establishing broader linkages to anticorruption efforts, as discussed in the previous section, are an important part of this work.

There are also opportunities provided by the policy lending instruments (development policy loans, poverty reduction strategy credits, and so on) to be exploited, which have become a rapidly expanding part of the Bank’s lending portfolio, to mainstream forest governance issues into Bank operations. If designed with proper due diligence, these can be an important tool in creating the correct macroeconomic incentives. There are important lessons to be learned from development policy loan programs underway in Cameroon, Democratic Republic of Congo, Gabon, and Lao PDR.

The Bank will need to continue to be cautious in approaching direct support to crime suppression. Field capacity building (basic mobility, communications, skills, equipment, and remuneration) for forestry guards as an established area of Bank forestry practice would not seem to present serious risks, but may justify consideration by the proposed special review mechanisms described by the Bank’s general counsel. Provision of weapons, weapons training can be singled out as particularly high-risk activities in which the Bank would not pursue. As the Bank’s legal opinion points out, beyond adherence to the Articles of Agreement, police activities are prone to risks of human rights abuse and other reputational risks that merit special safeguards, guidelines, and expertise that the Bank does not have in place.

This does not, however, restrict the Bank from support for a wide range of activities that would normally be thought of as forestry crime suppression. Work would address capacity building and might not need to be specifically targeted to activities at the forest level. Anti-money laundering, customs, and training of judges and prosecutors would fall into this category.

**Targeting knowledge management to achieve synergies with other Bank operations**

State-of-the-art analytics and knowledge management are critical to identify the best possible options to address forest law enforcement and governance issues, and in raising the confidence level regarding the effectiveness of the proposed actions. Increasing attention to enforcement and governance has produced a spate of research from both within and outside the Bank. At the same time, there have been significant analytical achievements on the broader governance issues.

From the forest law enforcement and governance perspective, there is strong added value to linking the Bank’s knowledge management efforts more directly to the Bank’s portfolio of country-level investments, and by bringing the broader governance experience and knowledge in the Bank to bear on enforcement and governance-related work. Ensuring that the country-level experiences supported by the Bank are analyzed and disseminated to benefit other Bank-supported interventions and those supported by other partners will also help move from analysis to practice.
While there is good information on many issues (such as timber theft prevention, chain-of-custody, and log tracking systems), critical gaps remain that the Bank should address in collaboration with other partners. An illustrative list of important areas for focus includes:

- Developing diagnostics to benchmark the forest crime and state of forest governance in client countries and identify indicators to monitor the progress of proposed interventions
- The role and involvement of local communities in forest law enforcement and crime prevention
- The role of independent monitors in making forest operations more transparent and providing legal operators with positive incentives
- Institutional (and incentive-compatible) reforms of forestry agencies (or equivalent) in client countries and includes gaining a better understanding of the role of incentives (including salary structure and so on) for civil servants
- Approaches to forest industry restructuring and retrenchment that will efficiently and effectively help address imbalances in wood supply and demand
- Demand for financial resources, as well as for technical assistance, arising from the successful implementation of the international/regional FLEG programs and investment implications for the Bank (and other donors)
- Establishing information management and utilizing geographic information systems for overall monitoring of the forest resource

**Role of the World Bank in Regional and International FLEG Processes**

The Bank’s Internal Evaluation Group asserts that “a significant comparative advantage for the Bank” is arguably the most important criterion for the Bank’s participation in individual global programs. The Bank’s Strategic Directions Paper for FY2002–4 identified three comparative advantages for the Bank at the global level (global mandate and reach, convening power, and ability to mobilize financial resources) and three at the country level (multisectoral capacity, expertise in country and sector analysis, and in-depth country-level knowledge) (World Bank 2004c).

While the success of the regional FLEG ministerial processes is owed to the commitment of participating governments and other stakeholders, the Bank has played a critical role getting these processes off the ground. It is evident that the Bank has successfully exercised its strong convening power and goodwill with both the donor community and client country governments to initiate and nurture the regional FLEG processes including organizing the ministerial conferences. It has also been relatively effective in mobilizing financial resources for specific activities at the regional and country levels to move these processes forward.

The Bank’s role in international discussions of forest law enforcement and governance issues has helped to legitimize an open and frank discussion of problems of forest law enforcement and governance. What had until fairly recently been a taboo subject is now being addressed by UNFF, ITTO, FAO, MCPEF, Asia Forestry Partnership, ASEAN, Amazon Cooperation Treaty Organization, and others (see chapter 3). The Bank should actively support the efforts of these organizations to include forest law enforcement and governance issues in their debates, decisions, and reporting in order to anchor the issues of forest crime prevention, detection, and suppression in broader intergovernmental work, including international cooperation.

The Bank, because of the size of its forestry portfolio, its prominent role in bringing generic issues of governance and anticorruption into the development debate, and its specialized expertise in related issues has a special obligation to bring
its resources to effectively support the regional and international FLEG processes and debate. In particular, the Bank has an important role to play in ensuring that the move from rhetoric to implementation continues, is based on a sound analytic basis, involves all critical actors, and is based on inclusive and participatory processes, as advocated by the Bank’s forest strategy. This means:

- Using the Bank’s global mandate and reach to support integration and follow up of the regional FLEG ministerial conferences into existing regional structures (ASEAN, COMIFAC, MCPFE, and so on) to ensure that the defining characteristics of frank and open dialogue based on analytic information and civil society and private sector participation are strengthened
- Using the Bank’s convening power to strengthen coordination and collaboration between international forest law enforcement and governance supporters and to engage with important private sector actors and importing or intermediary countries in the forest products trade chain; this would be especially critical for the Bank when such imports undermine the viability of (Bank-supported) projects in producer countries
- Promoting and facilitating effective linkages between the FLEG processes and broader processes and initiatives for forest governance reforms at different levels, such as the UNFF, FAO, and ITTO
- Developing stronger linkages between the regional ministerial FLEG processes and Bank projects and country dialog; this is critical both in terms of maintaining and increasing the commitment of the Bank’s regional staff in the FLEG processes and in terms of strengthening the implementation in client countries through investment and advisory services provided by the Bank
This chapter describes the need for a causal model of forest crime and points to the policy implications and to a classification of interventions. It then describes how it translates into specific activities and responses. In addition to the previous chapters, this proposal draws from a review of the law enforcement and criminal justice literature and experiences in countries where more systematic work in this area has been carried out in the past few years (for example, Indonesia, Russia, and Bosnia and Herzegovina). It should be emphasized that the aim is not to present a blueprint model but a general framework that will help practitioners in countries, as well as agencies supporting such work, to develop effective ways of addressing these complex issues.

Drivers of Illegal Logging and Other Forest Crime

The underlying causes of illegal logging and other forest crimes are complex, and often reflect fundamental problems in forest policies, forest legislation and regulations, and institutional mandates and capacities. These are aggravated by factors outside the forest sector, such as lack of transparency and accountability in public sector institutions that provide opportunities for corrupt practices, and weak judicial systems providing little deterrent to illegal operations.

Numerous theories have been advanced to understand the sources and causes of both crime in general and forest crime in particular. Many models offer important insights into the causes of crime and the formulation of policies to prevent and respond to crime. None, however, is able to concisely and confidently predict all crimes or to recommend comprehensive policies and programs to eliminate it. Some models of criminogenesis emphasize structural aspects of society: wealth disparities, differential opportunities, class, and ethnic schisms. Others focus on psychosocial aspects of criminals and potential criminals considering individual morbidity and other experiences that may lead to criminal behavior. Most relevant to forest crimes seem to be approaches that emphasize incentives and economic motivations.

A useful model to analyze the causes of crime combines motive, means, and opportunity. Persons motivated by greed, need, or other desires employ the tools (means) available to them to exploit the existing vulnerabilities (opportunities). Motive, means, and opportunity form a framework to understand the origins and incidence of, and potential policy responses to, illegality. Using these elements to analyze illegal logging and other forest crimes illuminates fundamental drivers of the problem. (Magrath et al. forthcoming). Box 5.1 presents an overview of...
Box 5.1. Illegal Logging and Other Forest Crime: Motive, Means, and Opportunity

**Motive**
- Overriding need to generate foreign exchange
- Imperative to finance military operations
- Poverty and lack of alternative income
- Lack of affordable fuel alternatives
- Denial of access by local people to resources they need for subsistence or livelihoods
- Indiscriminate (that is, regarding legality of origin) demand for timber in neighboring countries
- Indiscriminate international demand for timber
- Economic factors and policies favoring forest conversion
- Low cost of illegal timber (that is, ineffective sanctions) and rent-seeking business culture in the forest sector companies
- Overcapacity in the wood processing industry
- Difficulty complying with legal regulations (especially by small-scale producers/concession holders, communities, and private forest owners)
- Bureaucratic laws related to forest management (that is, cost of complying with laws is too high)

**Means**
- Roads, navigable rivers, harbors, and other transport infrastructure
- Labor in forest areas (often without alternative sources of livelihoods)
- Capital to finance illegal logging and other forest crime
- Equipment for logging and transport of timber and wood products
- Opportunities for money laundering to hide financial proceeds

**Opportunity**
- Weak governance in parts or all of the country (that is, conflicts and war)
- Breakdown of institutional controls and lack of accountability of public officials
- Rapid and disorganized decentralization and lack of institutional capacity at decentralized levels
- Ambiguous forest land tenure (that is, lack of legal definition, overlapping uses, conflicting laws, and so on)
- Inadequate or inappropriate legal framework (that is, not based on a social contract with key forest users)
- Lack of or weak recognition of customary rights (of local and indigenous communities)
- Weak internal organization of these communities
- Inadequate inappropriate prescriptions for forest management and use (regulations)
- Lack of reliable and up-to-date information on forest resources and their use
- Weak, poorly managed, and/or corrupt forest administration
- Ineffective and/or corrupt law enforcement
- Ineffective and/or corrupt judiciary
- Poorly managed forest administration
- Weak governance or contradictory policies in sectors related to forestry
- Weak control of illegal exports in producing and/or imports in purchasing countries

Source: Modified from Puustjarvi (2006a).

Illegal logging and other types of forest crime take place when these three factors are in place simultaneously (that is, when there is a motive to act illegally, the potential illegal operators have the means to do so, and the context in which they operate provides an opportunity for illegal action) (figure 5.1). The responses to illegal logging and other forest crime then need to focus on reducing the motivation for unlawful action, foreclosing the opportunities, and eliminating the means available to those operating outside of the boundaries of the law.
Although this, at first glance, may seem trivial, it has important implications regarding the definition of most appropriate approaches to address forest crime. Some of the possible actions (for example, many of those dealing with the motives and opportunities) are related to broader economic and social factors, requiring long-term action in the context of broader development efforts (for example, addressing demand-supply imbalances or broader institutional failures in the society).

In all areas there are, however, factors that can be eliminated with targeted (relatively) short-term actions (for example, eliminating finance for projects without secured legal raw-material supply, improving financial control through external audits, improving monitoring and information dissemination, controlling access to routes of transport, closing factories to reduce overcapacity, and eliminating export demand for illegal timber and wood products).

The ways these drivers operate are highly country (and even location) specific, and depend on economic, social, and cultural factors as well as the type of forest resource and its ownership/tenure arrangements. An appropriate set of responses can only be defined at the country level in processes involving the key stakeholders who interact with the forest resources.

**A Potential Framework to Combat Illegal Logging and Other Forest Crime**

Confidence in institutions, the ability to plan for the future, physical safety, and other features of sound overall governance and the rule of law in the economy are essential parts of an enabling environment for sound forestry (but not sufficient by themselves). If the overall governance situation is poor, it will act as a drag on forest sector governance. But, by the same token, efforts to reform the overall governance situation can provide a powerful opportunity to improve the governance situation in the sector (box 5.2).
Prevention

Prevention combines elements of promoting good governance in and outside the forest sector in general, with more specific actions focusing on forest crime prevention. Effective prevention of forest crime may need to address forest product supply and/or demand issues, such as rural energy (box 5.3) or industrial processing capacity (box 5.4). Such fundamental issues as forest land tenure and access rights of the local and/or indigenous communities to timber and wildlife need also be considered in forest crime prevention. In these areas the linkages to broader land use, industrial, rural development, and poverty reduction policies, strategies, and legislation are evident.

Forest crime prevention often links with broader public sector governance and institutional reforms through specific actions to combat

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**Box 5.2. What Is Good Forest Governance**

Governance is the process by which public officials and public institutions acquire and execute their authority to provide public goods and services. Forest sector governance, then, refers to the modus operandi by which officials and institutions (both formal and informal) acquire and exercise authority in the management of the resources of the sector to sustain and improve the welfare and quality of life for those dependent on the sector.

Good forest governance is characterized by predictable, open, and informed policy making based on transparent processes, a bureaucracy imbued with a professional ethos, an executive arm of government accountable for its actions, and a strong civil society (including the private sector) participating in public affairs, and all behaving under the rule of law. Thus, key features of good governance include adherence to the rule of law, transparency and low levels of corruption, voice of all stakeholders and accountability of all officials, low regulatory burden, and political stability (see also World Bank 2000b).

Source: Blaser et al. (2005).

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**Box 5.3. Impact of Energy Tariffs on Illegal Logging in Azerbaijan**

The government of Azerbaijan plans to revise and increase tariffs for natural gas. Also the tariffs for electricity consumption will be increased. Unless social protection measures are undertaken, these changes will affect the poverty level in the regions and especially in the mountainous and upper mountainous territories with high levels of unemployment and low income. Deterioration of living conditions and decrease in the paying capacity of even those people that currently use energy supplied by government will considerably increase man-caused impact on the region’s forest resource, and subsequently result in their intensive degradation. Twofold increase of illegal logging volumes can be expected.

Source: Savcor Indufor Oy (2005b).

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**Box 5.4. Balancing Timber Demand with the Legal Supply in Indonesia**

The Ministry of Forestry estimates that the total legal annual harvest of Indonesian native forest timber is approximately 17 million cubic meters and the installed capacity of the forest industry is approximately 74 million cubic meters. While some of this wood (especially for the pulp and paper mills) comes from existing industrial plantations, it is estimated that the great majority (approximately 75 percent) of the timber is sourced illegally. This is because most of the commercially viable timber available from legal forest concessions has been exhausted and industrial forest plantations have not been developed quickly enough to meet the shortfall.

As an important component of its strategy on prevention of illegal logging and law enforcement, the government of Indonesia will develop a comprehensive wood industry restructuring plan to bring Indonesian mill demand into balance with the nation’s legal timber supply.

corruption (for example, through increasing the accountability and transparency of forest sector institutions, by introducing specific measures to tackle high-level corruption, by reducing the discretionary powers of public officials, by instituting the right staff incentives, and by improving the transparency of commercial transactions) (box 5.5). Increasing civil society and private sector participation (for example, through public-private partnerships and consultative processes) can also improve institutional transparency and accountability.

Often preventive measures deal with the quality of the forest legislation and regulatory framework. Motivation and opportunities for forest crime can be reduced by ensuring that the legitimate needs of different stakeholders are recognized and that laws and regulations are formulated in a way that is in line with the capacity of the different groups of forest users to comply with the legal requirements and does not put legal operators in a situation that makes the costs of compliance unreasonable (box 5.6).

At the level of the forest management unit, forest crime prevention is promoted by ensuring that there is adequate information available on the forest resources and legal harvest (for example, through forest inventories and management plans that are of an appropriate technical quality and detail), and by ensuring that forest management plans contain the appropriate means to prevent crime (for example, by closing roads after harvesting, employing routine patrols, and determining what sort of tree marking and log labeling systems is used).

Improving the capacity of both forest and judicial authorities to enforce forest legislation is also a key issue in crime prevention and may also require the adjustment of penalty codes to ensure that they constitute an effective deterrent to forest crime.

Prevention may also deal with finance to eliminate the means to fund illegal operations. This may include such actions foreclosing

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**Box 5.5. Interagency Task Force in Albania**

Illegal logging and a general breakdown of law and order in the late 1990s severely hampered Albania’s ability to protect its forests. The government recognized that the Ministry of Forestry alone could not effectively address illegal logging. In 2000, with the support of a World Bank forestry project, the government established an interministerial task force for the protection of the forest estate. Chaired by the Ministry of Forestry, the Task Force Commission for Forest Resource Protection now involves 11 ministries, including the Ministry of Public Economy and Privatization, the Ministry of Local Government, the Tourism Development Committee, the Ministry of Environment, the Directorate for State Police within the Ministry of Public Order, the Directorates of Taxes and General Customs within the Ministry of Finance, and the Ministry of Justice. Establishment of the national-level task force has led to the creation of prefecture- and district-level intersectoral collaboration to address illegal logging in the field. As yet, the national task force does not include the private sector or civil society.

Sources: Savcor Indufor Oy (2005b); World Bank (2004b).

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**Box 5.6 Legal Reform in Bolivia Has Limited Success**

In Bolivia, indigenous people’s historically ambiguous land tenure has led to conflicts with cattle ranchers, farmers, and timber extractors. The Agrarian Law of 1996 was meant to resolve these conflicts through reforming tenure-related laws. Though the new legal framework has achieved significant progress, success has been hampered by cumbersome procedures and complicated bureaucratic processes. Actual land titling has been slow owing to complicated procedures for the demarcation and regularization of land occupation. Families engaged in extraction of nontimber forest products have ended up being neither forest concessionaires nor owners. High costs of developing management plans, complex processes involved in registering and gaining permits, and a prohibition on chainsaw use for processing timber have limited efforts to regularize small-scale timber producers. Farmers on the agricultural frontier are opting to obtain deforestation permits to clear forests rather than undergoing the complex and costly process for obtaining harvesting permits to selectively cut trees on their land.

opportunities for the laundering of profits from illegal forest operations (box 5.7) or ensuring that banks and international financing institutions do proper due diligence on the availability of legal timber and the existence of mechanisms to ensure legality (for example, through audited timber tracking systems) before financing forest industry capacity expansion or logging operations.

Promoting independent forest certification and other demand-side measures related to corporate social responsibility can be a powerful instrument for forest crime prevention, especially in cases where demand for timber and other forest products is driven by export markets. This, together with forest financing, introduces an international dimension to these strategies.

Effective crime prevention may also require positive incentives for those complying with legal requirements, especially in situations where they initially have to compete with illegal operators. These may involve, for example, reduced concession fees for independent third-party certified producers.

Monitoring and information, public education, and awareness are areas of prevention where governments can cooperate with the private sector and civil society groups such as NGOs. External monitoring of forest cover change, forest concession management, logging and timber transport, and the publication of the information in a way accessible to a broad group of stakeholders can be powerful tools in crime prevention. This is especially important in countries severely affected by corruption. Information campaigns can also inform the public about the provisions of forest law and thereby ensure that users are at least aware of rights, restrictions, and prohibitions. In addition, information campaigns can provide the justification for restrictions by informing the public of the damages that restrictions are intended to prevent, and indicate actions that the public can take to support law enforcement efforts (for example, ways to report illegal activity).

### Box 5.7. Linkages to Anti-Money-Laundering Work

Anti-money-laundering laws are in place in more than 100 countries, with more countries expected to enact legislation in the coming year. These laws provide powerful and important tools that can help countries fight corruption and environmental crime, including illegal logging and trafficking in endangered species. Financial intelligence units established pursuant to anti-money-laundering laws provide countries with a worldwide network to rapidly access financial data in both source and destination countries. Within the World Bank, East Asia and the Pacific and FSEFI (anti-money-laundering unit) have been working to integrate anti-money-laundering laws into the forest law enforcement and governance program, including work in Indonesia. The World Bank’s Environmentally and Socially Sustainable Development Network is working with FSEFI to synthesize best practices and promote understanding and use of these tools.

Historically, most countries have lacked reliable information on deforestation trends even at the aggregate. This is changing now as a result of synergistic advances in technology and institutions. These changes have the potential to drastically reduce the cost of forest monitoring and to enable civil society to use this information to more fairly balance interests in the forest (Chomitz 2006). Specifically, improvements in remote sensing have resulted in satellite images of low enough cost and high enough quality that they can be used to detect deforestation and other changes in the forests.

A forest crime prevention strategy will by definition overlap with broader strategies for forest sector development as well as development strategies outside of the forest sector (public sector reforms, fiscal systems reforms, reforms of the judicial system and police, anticorruption strategies, to name a few) and require coordination across sectors. An example of the kinds of elements that can be included in a sectoral prevention strategy is presented in box 5.8.

Forest crime prevention has also an important cross-sectoral dimension. Rather than preventing
illegal deforestation, many agricultural policies and incentives in developing countries actually promote encroachment. Policies that confer ownership rights based on clearance, price interventions that indiscriminately favor agricultural uses over natural land uses, and other policies have been widely noted and are often the subject of reform efforts on their own economic merits. Often these policies coincide with and directly contradict other measures aimed at protection of forest resources. Usually, and more appropriately, these are approached as problems of policy harmonization and intersectoral coordination, but the impact of reforms can have important and positive law enforcement benefits.

Linking forest law enforcement and governance with broader planning frameworks (for example, national forest programs or other types of sector and/or macroeconomic reform programs) is not only advisable but an absolute necessity to avoid overlaps and duplication of efforts and may require specific institutional arrangements (see box 5.9). As preventive

**Box 5.8. Forest Crime Prevention in Cambodia**

The Cambodia Forest Concession Control and Management Pilot Project (2000) supports prevention of illegal logging in several ways. The project finances:

- Strengthen capacity of the Forestry Department's Legal and Litigation Office and the Ministry of Environment to monitor illegal logging and launch effective prevention activities
- Introduce systematic data collection and analysis techniques, provide equipment and contractual services, and training and technical assistance
- Assist concessionaires, provincial forestry offices, national parks, and protected areas managers and affected communities with design and implementation of timber theft prevention plans and dissemination of information on the government's forest crime prevention program using media, training programs, and other mechanisms
- Provision of guidance and exercise quality control over concessionaire preparation of detailed management plans
- Strengthen capacity of the Forest Management Office of the Forestry Department to oversee concession operations and ensure compliance with plans and conditions established under the Forest Planning and Inventory Component

*Source: World Bank (2000a).*

**Box 5.9. Development Policy Loan to Gabon Focuses on Natural Resource Governance**

In Gabon, the forest sector is the second largest employer and earner of foreign exchange, accounting for 15 percent of total foreign exchange earnings. Lax enforcement of laws and contracts in the forest sector has resulted in significant foregone government revenue. The government also recognizes that improving governance in the sector is key to attracting more responsible investors. A 2005, US$15 million, Development Policy Loan from the World Bank seeks to increase the contribution of renewable natural resources to national income to help reduce the country’s dependence on declining oil resources while protecting the natural resource base. The project focuses on strengthening the policy and institutional framework for the management of natural resources through greater transparency and accountability and better enforcement of laws and regulations. The project covers forests, fisheries, biodiversity, and mining. It is supported by a US$10 million grant from the Global Environmental Facility for managing national parks and biodiversity.

The forest reform program is the most detailed and comprehensive undertaking supported by the project. The government intends to reorganize the commercial forestry sector, reconfigure Gabon’s forest landscape, and set the stage for a more socially, economically, and environmentally coherent land-use planning taking into account nonindustrial forest uses. It has committed to review all logging permits, repossess those that are in the hands of noncompliant companies and individuals, step up the enforcement of fiscal measures and the obligation to prepare sustainable management plans, strengthen forest controls in the field, change the mode of access to permits from discretionary to transparent and competitive and maintain a moratorium on the allocation of new permits until the new allocation procedures are in place, eliminate pricing distortions and bottlenecks to industry development coming from the monopolistic marketing board, and introduce procedures on forest use that protect the rights of indigenous people and other forest-dependent rural poor.

*Source: World Bank (2005d).*
measures target the fundamental problems underlying illegal logging, many of them can be expected to take effect only in the medium and long term.

With respect to situational crime prevention (forest management unit timber theft prevention planning), and some aspects of fraud prevention in commercial timber sales systems (log tracking and chain of custody systems for example), there are important potentially significant public investment needs that must be met if forest law enforcement objectives are to be met across the developing world. The Voluntary Partnership Agreements currently being negotiated between some key developing timber producer countries and the European Union are likely to further increase demand for support to this type of investment.

**Detection**

Detection refers to various methods of collecting and processing information on forest crime and related trade with the objective of identifying illegal activities and facilitating the design of improved policies. Detection includes monitoring and surveillance to determine if and where crime is occurring. This kind of information is crucial for setting priorities and for evaluating other elements of the enforcement program. Remarkably, few governments have systematic forest crime monitoring programs. As a result, even the most basic data on illegal activity is seldom available to guide priority setting and the allocation of enforcement resources. The kinds of information that are needed include the geographic incidence of different crimes, the type of crimes that are occurring, the type of perpetrator, and the apparent level of crime.

Detection systems include satellites, aircraft, and ground monitoring and surveillance personnel to document the location, type, volume, and if possible the identity of violators involved in illegal logging activities (box 5.10). However, the procedures used to draw inferences for use with the rest of the law enforcement program are just as important as the sophistication of the data collection processes.

Even indirect methods can be used to assess how widespread illegal activity actually is. For example, comparisons of data on production, consumption, and trade in forest products often show significant disparities between trading partners’ recorded exports and recorded imports. These differences can indicate the potential magnitude of timber theft, smuggling, and transfer pricing. Similar consistency checks between forest revenues and reported harvest can also be useful. Green accounting, as well, can indicate the existence of forest crime. Detection should also involve a process to determine if any institutional weaknesses exist that can create opportunities for timber theft. These opportunities can result from inadequate boundary marking, product marking, product measuring, product...
tracking, or an inadequate process of checking for revenue payments.

At the level of specific incidents, detection merges into investigation. This involves collecting evidence and documentation as the basis for arrests, judicial proceedings, fines, or other action. Specialized expertise is needed to employ techniques that are appropriate to the suspected crime and the national legal system.

Crime monitoring data are also important for evaluating the enforcement program’s impact and efficiency and for providing feedback to program planners. Without defensible and realistic baseline data, claims concerning the impact of the program cannot be verified, and thus the credibility and commitment of enforcement programs are left subject to question. In many instances, disingenuous governments and corrupt officials seem to find the absence of monitoring data and crime detection systems a convenient screen. For these reasons, and because crime monitoring systems can be established with relative ease, systematic crime detection programs should be one of the first priorities in a forest law enforcement and governance program.

However, detection programs are subject to manipulation, self-censorship, and physical risk. Policy makers need to anticipate and manage these hazards by providing training and support for project personnel, institutional independence, and interagency oversight and by ensuring public disclosure of information. In Cambodia, the use of an international NGO, Global Witness, to independently monitor the veracity of the government’s crime reporting statistics is a unique strengthening arrangement, and the same approach is now being tested in Cameroon (box 5.11). Another NGO, Global Forest Watch, uses the global availability of satellite imagery and Internet communications to assemble objective information on forest crime and quickly disseminate it to large audiences with minimal risks.

The lack and weakness of even the most basic forestry information is a fundamental impediment to forest law enforcement and governance. Without adequate baselines, it is virtually impossible to authoritatively determine losses in forest area and volume and it is similarly impossible for governments to sensibly allocate scarce enforcement resources, much less to bring to court compelling evidence of encroachment, theft, and corruption. The basic thrust of the need for better data collection and analysis is not law enforcement specific, but stands on its own in investment priorities for consideration by development agencies.

While also not new or unique to international work on forestry, promotion of wider access to data, public disclosure of plans, environmental assessments, contracts, revenues, and other information is an area where emphasis could be increased. Supporting independent forest monitors can be an effective tool to increase forest sector transparency, especially in countries with weak overall governance. Forest sector disclosure policies could be developed in appropriate countries in the context of development policy operations and poverty reduction support operations. International efforts similar to the EITI can focus on securing better public disclosure and accountability on public revenue aspects of forestry.

Beyond broad forest cover change monitoring and revenue tracking at aggregate levels, crime detection at the forest management level depends critically on there being established baselines of the approved and legal management programs, again as a basis for identifying discrepancies and deviations. Here, routine investment support to detailed, professional, and scientifically valid forest management planning is needed. The need for appropriate planning procedures and outputs (plans, maps, budgets, schedules) cuts across all management objectives (production, protection, and so on) and, while scale and format may vary, across management arrangement (commercial concession, community management, farm and private forestry, public agency, and so on).
Based on awareness of the risk and frequency of illegal activity, development agencies can and should make greater effort to incorporate a crime prevention mentality into the resource planning initiatives that they support.

**Suppression**

Suppression of illegal activity should be the last recourse in a forest law enforcement program, because it almost inevitably involves the use of force after destructive activities have occurred or while they are underway. From the Bank perspective, it is also an area where the Bank has strict guidelines based on its mandate that define its level of involvement (box 5.12). Suppression measures pose risks to agency personnel, the public, and the lawbreaker. In any responsible suppression program, these risks need to be systematically considered in light of the probability of success, the accountability and

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**Box 5.11. Independent Forest Monitoring in Cameroon: What’s Next?**

Independent monitoring of logging has been used in Cameroon since 2001. The mandate of this third-party observer is to accompany forest officials on control missions in the field and verify compliance and discrepancies between the mission’s activities and official procedures. The observer’s reports are made public. They inform the government, donors, and civil society and give them tools to take action. The observer also provides assistance to use remote sensing technologies and to better organize the case-tracking system. The observer does not supersede the government as the responsible entity of law enforcement, and prosecution of offenders remains with the latter. Experiences from Cameroon show that third-party forest monitoring can be beneficial in the following ways:

- It protects control officers against intimidation or corruption from companies and/or other officials, and it also protects companies against racketeering.
- It levels the playing field to the advantage of responsible companies and/or other officials. Some international buyers now refuse to purchase from companies of poor reputation.
- It augments reform-minded people in the government and helps them to find dysfunctions of the system, and its impartial status supports internal change processes.
- It fosters accountability by providing first-hand field evidence allowing civil society to question officials on tracking illegal activities.
- It can help to restore the credibility of the timber (exporting) industry and help to secure international markets.
- It capitalizes on the wealth of information passed by local communities, NGOs, industry members, and forest officials by providing a confidential avenue for information to be made public.

The remaining obstacles include:

- Very few cases though well documented have gone all the way through the legal process to the point where fines were imposed or concessions withdrawn.
- Programming of missions depends on the bureaucratic process that hinders rapid responses before evidence of illegal logging operations is concealed.
- The oversight committee is dominated by the Ministry of Forests with no input from the Ministry of Finance, civil society, or the private sector. Until recently its inertia has created a situation where the government could assert that it had an independent observer without the observer being truly operational.
- The ability of the donor community to provide support has fluctuated, resulting in a cycle of intense activity followed by periods of dormancy owing to lack of instructions from the host ministry.

Experience from Cameroon shows that third-party monitoring can only be effective if the following conditions are met:

- Political will to undertake controls, to levy penalties, and to overcome inertia both in the Ministry of Forests and in the judiciary system.
- An adequate legal framework with simple procedures and clear sharing of responsibilities among the various institutions.

transparency of the suppression effort, and the skills and training available to law enforcers.

Depending on the nature of the forest crime and the suspected offender, the risk of violence is a genuine and legitimate concern for forest law enforcement authorities. In many countries, forestry officials are routinely exposed to threats, intimidation, and actual violence, and bodily harm and loss of life are not uncommon. The indiscriminate use of force also poses risks to the public at large. Because the people involved in criminal activity at the field level are often simply laborers (and usually poor people with few alternatives) working at the direction of others, genuine ethical reasons exist to question the use of force.

In response to these kinds of threats, law enforcement practitioners can sometimes draw upon experience and intelligence about violators to develop risk-success matrices. These are used to make appropriate preparations for safe conduct of suppression operations, or to determine when safe operations are a practical impossibility. Institutional arrangements for major suppression efforts or crackdowns need to be tailored to local circumstances. However, these arrangements also clearly need to incorporate adequate provisions for accountability and transparency that are commensurate with the likely use of force and the need for security and confidentiality. Interagency arrangements in which the police, military, customs, other law enforcement agencies work together with natural resource agencies are common and can be effective. Experience with special task forces suggests that a variety of institutional arrangements can be effective, provided resources, budgets, planning, and reporting provisions are in place. However, without measures such as these, any institutional arrangements can be rendered ineffective.

Where extraordinary suppression efforts are needed, planners need to take special measures to provide training for staff members at all levels. Expertise that is not commonly available in forestry agencies includes specialized skills in investigating criminal activities, documenting crimes, handling evidence, and preparing judicial proceedings. In highly dangerous or specialized investigations, training appropriate for undercover

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**Box 5.12. Suppression and World Bank–Supported Criminal Justice Activities**

Much of what is considered suppression is related to criminal justice. To date, the World Bank has involved itself in criminal justice only in a limited way, primarily through support for capacity building activities. For example, in the forestry sector, the Brazil Rondonia Natural Resources Management Project (1992) included financing construction of outposts for the State Forestry Police, as well as equipment, materials, salaries, and other incremental operating costs. Among nonforestry operations with criminal justice components, the Bank has supported, for example, assessments of law enforcement institutions (police, prosecutors, and so on) in dealing with anti-money laundering.

A recent opinion from the Bank’s legal department concludes that while interventions in the criminal justice sector can be permitted under the Bank’s mandate, any particular proposed intervention should be “grounded in reasonable economic rationale and should avoid interference or the appearance of interference in the political affairs of a member country.” A discussion note accompanying the legal opinion argues that “engagement in the criminal justice sector would complement and reinforce current Bank strategy in other areas. The Bank’s anticorruption strategy, for example, would be enhanced if the Bank were able to assist members in connection with the criminal law aspects of fraud and corruption. And work in the sector would be a logical extension of the Bank’s current work in legal and judicial reform to enhance the rule of law.” Further, “the Bank should avoid support for investigations, prosecutions and judgments under criminal laws in specific cases. Instead, the Bank should focus its support on institutional capacity building, technical assistance, and other activities that address sector or subsector-wide issues.”

operations, firearms safety, and other special expertise may be needed.

As can be seen, the complexity and risk of suppression efforts underlies the value of measures to avoid through sound prevention and detection efforts the emergence of a serious law enforcement problem. Where such efforts fail, or are not made, the problems of suppression can rapidly become nearly insurmountable.

Empirically, suppression of forest crime in developing countries is very limited and essentially ineffectual, providing very little deterrence to further crimes. Akella and Canon (2004) disaggregate the deterrent effect into low probabilities of crime detection, prosecution, and conviction and, similarly, low expected sanctions and penalties. In sum, few forest crimes are prosecuted, and few offenders are punished.

### Assessing Drivers and Responses to Forest Crime

Forest law enforcement programs need to be formulated at the national and local levels building on established laws, institutional arrangements, the interests and capabilities of different stakeholders, and the specific crime problems being encountered. Many of the specific interventions and tools discussed above and described throughout this report can simultaneously contribute to more than one of the enforcement functions of prevention, detection, or suppression.

Annex 1 brings the drivers of forest crime (motive, means, and opportunity) together with the prevention-detection-suppression framework in several typical typologies of forest crime. Table

<table>
<thead>
<tr>
<th>Typical contexts</th>
<th>Potential drivers (motive, means, opportunity)</th>
<th>Potential responses</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregular timber sales, award of concessions, and service contracting</td>
<td>• Low risk of sanctions</td>
<td>• Improve procedures for timber sales and awarding concessions to increase transparency and accountability</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increase proportion of timber sold/concessions awarded through competitive bidding</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly motivated staff in public forest administration/enterprises</td>
<td>• Reorganize public forest administration to increase staff motivation</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized and corrupt financial audit system</td>
<td>• Enhance effectiveness of financial audits on public forest administration/enterprises</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Improve data management and transparency in public forest administration/enterprises</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strengthen cooperation with police force and judiciary</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Amend penalty code</td>
<td>P</td>
</tr>
</tbody>
</table>

Note: P, prevention; D, detection; S, suppression.
5.1 provides an example of a single typology (irregular timber sales, award of concessions, and service contracting) taken from the much more comprehensive assessment provided in the annex.

Issues of cost, risk, capacity, and commitment need to be addressed in the design of forest law enforcement and strengthening programs, and, as discussed in this report, policy and program development can benefit from open, consultative, and well-structured planning processes. This level of planning can benefit from development of more detailed and specific menus of alternatives laid out in a typology of forest crime context as described in annex 1.
Based on the discussion and analysis presented in the previous chapters, it is proposed that forest crime be addressed through multifaceted approaches. Such approaches need to:

- **Address key drivers both within and outside the forest sector**: Some governance issues relating to forest crime lie entirely within the forest sector, while other governance issues affecting forests and forest-dependent people extend beyond the forest sector. Likewise, within the scope of law enforcement as it relates to forest crime, some are limited to the forest sector, while other initiatives are less sector-specific in nature. Important synergies can be obtained across these issues.

- **Combine actions with both short- and long-term implications in a realistic stepwise plan**: Visible short-term impacts are often needed to create and maintain momentum, whereas long-term work with the structural drivers is necessary to ensure that these efforts are sustainable over time. Early “wins” (for example, significant increases in forest revenue) are important factors to motivate continued efforts.

- **Address both failures of law and failures of implementation**: On the one hand, ensure that the correct laws and policies are in place. On the other, work to enforce the law. This two-pronged approach to legal compliance is the only way to ensure that the full range of motivations, opportunities, and means for illegal behavior is addressed.

- **Strengthen supply-side measures with measures to control imports of illegal timber and wood products**: This is especially important regarding countries where export demand is a significant driver of illegal activities in the forest sector. It should be noted that—at least in principle—these measures need not be restricted to timber and wood products and could be also extended to other products (for example, wildlife or products that derive from illegal conversion of forest lands).

- **Integrate anti-money-laundering and asset forfeiture laws into the fight against forest crime and related corruption**: These tools, along with the UN Conventions Against Corruption and Transnational Organized Crime, provide strong and effective regimes that governments can use to fight forest crime and related corruption.

Translating the emerging understanding of the development significance of poor governance and corruption has already been recognized as a challenging and demanding area that will require innovation, learning, and risk taking. Effectively addressing forest law enforcement...
and governance issues will require responding to important, and partly unresolved, ethical and operational challenges. These include:

- How to develop credible interventions when dealing with deeply flawed and compromised institutions and governments
- Realistically and responsibly distinguishing between problems that arise from weak capacity and those that reflect weak commitment
- Appropriately pacing and sequencing pressures for reform in relation to the uncertain emergence of local champions and consensus
- Maintaining partnerships in the face of delays, disappointments, and the inevitable needs for compromises
- Knowing whether and when to disengage

Forest law enforcement and governance work may sometimes be at the frontier of the international community’s capacity to deal with problems of armed groups, political interests, and criminal organizations. Development practitioners will need new skills and knowledge, some of which will have to be built through experience, to deal with problems such as blending promotion of systemic and long-term governance reforms with targeted crime suppression programs.

Focusing more directly on illegal logging and other forest crimes will not always be a natural or comfortable role for development agencies including the Bank. Inevitably, it will involve development agencies in complex and controversial issues regarding the quality of laws, and put these institutions at times at odds with powerful interest groups defending the status quo for personal gain, including in some cases high-level government officials. Consequently, there are two potential areas of risk which the international community needs to be aware of:

- As with any complex and controversial issue involving different interests and actors, there are reputational risks related to work with forest law enforcement and governance. The Bank and its partners need to be especially sensitive to issues related to human rights and equity in their work. Transparency and advocacy and support to participatory approaches are important means to avoid this type of risks.
- A more vigorous engagement with forest law enforcement and governance will also inevitably involve difficult issues related to national sovereignty in the management of natural resources. This political risk needs to be carefully managed.

Involvement in forest law enforcement and governance is not, however, entirely new or novel, and the Bank and others can have a constructive role by linking existing forestry work effectively with broader efforts to improve governance in client countries.

Forest law enforcement and governance problems are not new and will never be entirely or permanently eliminated. However, developing countries and the global community have come in recent years to a new recognition of the nature and significance of forest crime, and there has never been such a wide and strong consensus on the need for action and collaboration to control illegal logging, illegal deforestation, arson, wildlife crime, forest-based corruption, and the other crimes discussed in this report. As denial continues to give way to action, the analysis and experiences underlying this report point to the need for new and deepened national and international forest law enforcement efforts.

The constructs suggested in this report for understanding the sources and drivers of crime and the structure of forest law enforcement systems provide a framework for assessment of national programs and international action. It builds on a body of expert knowledge and professional law enforcement practice that is only
just now being brought to bear on problems in the forest sector. While other frameworks and models are available and can be equally useful, the main message here is one of an urgent need to increase the knowledge content of the debate on forest crime and to improve the technical content of national programs and development assistance.

In many countries, law enforcement capacity and expertise exists in other sectors and needs to be marshaled in new ways to support forest development. In others, specialized capacity needs to be developed within forestry agencies. Exploitation of new enforcement innovations and opportunities, made possible, for example, by the introduction of anti-money-laundering legislation, the adoption of the UN Conventions Against Transnational Organized Crime and Corruption, and by other new legal and judicial innovations, will require new skills and capacity.

Beyond more and better knowledge, it is clear that enormous investments will be required to achieve the needed control on forest crime. No one knows how much will be needed. To a large extent, investments in better resource management, social development, and industrial restructuring will spill over into improved compliance with laws and regulations. But substantial amounts of resources will be needed specifically for specialized and increasingly sophisticated forest law enforcement capacity building.

The means, motive, and opportunity construct is of particular value in suggesting areas of comparative advantage across potential partners in forest law enforcement and governance. As shown in figure 5.1, for example, consumer countries and industry have particular niches in helping to reduce the motive for illegal logging by reforming markets and public procurement policies that discriminate against stolen material. Governments and financial institutions can help limit the development of excess wood processing plant and equipment by requiring and exercising due diligence in assessing wood supply and land availability in consideration of wood-based and agro-industrial investments. Producer countries have obvious priority in respect of improving forest management as an approach to reducing the opportunities available for illegal activities.

In terms of more specific priorities, the international community should:

- Deepen the technical content of FLEG processes at the international and national levels, mobilize opportunities for multilateral enforcement action, and integrate the regional FLEG processes into existing structures for regional cooperation.
- Promote collaboration between the progressive elements of the industry, international financing institutions, and international NGOs involved in the FLEG process to develop improve and harmonize safeguards and due diligence on forest investments. The aim should be both to ensure the legality of the timber used and to mitigate the risk for other forest crimes, such as poaching, arson, and encroachment of forest areas, resulting from forest industry investments. These impacts can be either direct (for example, by increasing industrial capacity beyond availability of the legal supply of roundwood either through a single investment project or through the combined impact of several investments) or indirect (for example, by opening up previously inaccessible areas through the construction of forest roads).
- Ensure effective coordination between the implementation of the EU FLEGT Regulation and Action Plan and other forest law enforcement and governance efforts. This is needed especially concerning the VPAs envisioned in the FLEGT action plan, and the lending and advisory operations of the international financing institutions, especially the World Bank. The implementation of
the VPAs is likely to require significant investment in the development of sound policies, legislation, regulatory frameworks, and institutional reforms and capacity building. These are areas where the Bank and other international financing institutions are already involved in a number of priority countries, and close coordination is needed to bring about synergies and avoid overlapping actions. Under the EU FLEGT, an increasing number of projects are implemented by various organizations internationally or in specific regions. These need also be effectively coordinated.

- Explore the potential of the EITI as a means of increasing the transparency of the forest sector financial flows in some key forest countries. Though not directly related to illegal logging at this time, EITI may have the scope to inform forest law enforcement and governance, or at some future point incorporate forest sector financial flows within its scope and mainstream these into the discussion on financial flows from private companies to the government. The latter option could become feasible in countries where a relatively small number of companies operate large forest concessions.

The world’s problems of forest law enforcement will not be solved only by jails, courts, and arrests. Dramatically improved resource management, effective rural development services, and poverty reduction serving forest-dependent communities, industrial restructuring, protected areas systems serving the needs and aspirations of local communities, and all the other components of sustainable forest sector development and just and equitable economic and social development will, in the end, be more important.

Credible penalties, effective enforcement, and fair and just legal systems are, however, essential ingredients to the control of forest crime. Forest law enforcement and governance should not displace the established focus of forest sector development strategies or assistance. More sophisticated, technically and analytically sound forest law enforcement and governance work should, however, be added to the array of interventions and approaches supported by the global community.
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ANNEX 1. A Framework for Assessing Potential Responses to Forest Crime

While the prevention, detection, suppression framework provides the elements for a strategy to address illegal logging and other forest crime, alone it is not sufficient to determine appropriate policy responses in a given context. For practical purposes, this framework needs to be complemented with a more context-specific assessment. While it is evident that a detailed definition of appropriate forest law enforcement and governance responses can only take place at the country level with the involvement of the key stakeholders, the aim of this annex is to present a generic discussion based on typical drivers (motive, means, and opportunity) in commonly found forest contexts.

Table A.1 presents a range of typical contexts for illegal logging and other forest crime, as well as an indication of some of the most common drivers (motive, means, and opportunity) in each context. Depending on the type of forest crime and the factors underlying that type of crime in a particular country there are a variety of potential forest law enforcement and governance responses that aim to prevent, detect, and suppress illegal activity.

From the table, where forest crime is driven by poverty (need as opposed to greed), efforts to diminish illegal activity are most appropriately focused on prevention of the crime in the first place, through poverty alleviation efforts, land tenure reform, and the like. Much of this is beyond the scope of the forest sector, though integrally related to broader development efforts. Prevention-related initiatives are likewise important in combating commercially motivated forest crime. In these cases, prevention activities are generally related to broader public sector governance reform and strengthening forest sector management. In both scenarios, efforts to improve the supply-demand imbalance for forest products are necessary to eliminate underlying motivations.
## Table A.1. Potential Drivers and Forest Law Enforcement and Governance Responses to Forest Crime

<table>
<thead>
<tr>
<th>Typical contexts</th>
<th>Potential drivers (motive, means, opportunity)</th>
<th>Potential responses</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illegal logging</td>
<td>People unable to meet their basic needs</td>
<td>Legalize illegal use and/or simplify regulations concerning access to public forest/wildlife resources</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>Lack/high cost of alternative energy</td>
<td>Create opportunities for income generation</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Offer alternatives to fuelwood as source of energy</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>Illegal logging for securing subsistence</td>
<td>• People unable to meet their basic needs</td>
<td>P</td>
</tr>
<tr>
<td>Small-scale illegal logging to enhance livelihoods by</td>
<td>• People unable to meet their basic needs</td>
<td>Legalize illegal use and/or simplify regulations concerning access to public forest/wildlife resources</td>
<td>P</td>
</tr>
<tr>
<td>- People without legal access forest land</td>
<td>• Legalize illegal use and/or simplify regulations concerning access to public forest/wildlife resources</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>- Managers’ owners of community forests</td>
<td>• People unable to meet their basic needs</td>
<td>Legalize illegal use and/or simplify regulations concerning access to public forest/wildlife resources</td>
<td>P</td>
</tr>
<tr>
<td>- Private forest owners</td>
<td>• Poverty</td>
<td>Create opportunities for income generation</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Complex legal procedures related to harvesting and access to forest resources</td>
<td>Reduce bureaucracy and fees associated with legal timber harvesting</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Disputes over land tenure rights local tenure of forest land</td>
<td>Clarify land tenure, consider establishing</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized, under-resourced, and corrupt forest law enforcement</td>
<td>Strengthen forest law enforcement</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Corrupt community leaders</td>
<td>Improve internal control on law enforcement staff</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Criminal groups organizing illegal logging</td>
<td>Improve internal control in communities</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>Strengthen cooperation with police force and judiciary and target the organizers/financiers behind these activities</td>
<td>D+S</td>
</tr>
<tr>
<td>Large-scale commercial illegal logging</td>
<td>• Poorly motivated staff in public forest administration/enterprises</td>
<td>Amend forest-related legislation and penalty code</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• High cost of legal timber</td>
<td>Use money laundering and asset forfeiture laws</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Capacity of wood processing industries exceeding legal supply</td>
<td>Reorganize public forest administration to increase staff motivation</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Export demand insensitive to legality of timber</td>
<td>Reduce bureaucracy and fees associated with legal timber harvesting</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized and corrupt forest law enforcement and auditing system</td>
<td>Embark on phased program of capacity reduction in wood-processing industries</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Inadequate monitoring data on timber flows and origin of timber</td>
<td>Increase supply by establishing plantations or adjusting forest management regulations</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collaborate with governments and private sector in importing countries to increase demand for legal timber/deter imports of illegal timber</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase resources and enhance independence of forest law enforcement</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enhance effectiveness of financial audits on public forest administration/enterprises</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide support to patrolling networks among private forest owners</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use anti-money-laundering laws</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promote independent forest monitoring</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improve data management and transparency in public forest administration/enterprises</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promote responsible business practices (chain-of-custody systems, certification) in private industries</td>
<td>D</td>
</tr>
</tbody>
</table>
## Table A.1. Potential Drivers and Forest Law Enforcement and Governance Responses to Forest Crime (cont.)

<table>
<thead>
<tr>
<th>Typical contexts</th>
<th>Potential drivers (motive, means, opportunity)</th>
<th>Potential responses</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict timber</td>
<td>• Inefficient legal procedures</td>
<td>• Strengthen cooperation with police force and judiciary</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>• High cost of armed conflict</td>
<td>• Focus on conflict resolution/management</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poor control of timber imports in recipient countries</td>
<td>• Improve controls on origin of timber</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>• Ineffective international sanctions</td>
<td>• Promote international collaboration in sanctioning conflict timber</td>
<td>S</td>
</tr>
<tr>
<td>Other forest crime</td>
<td>• Low risk of sanctions</td>
<td>• Improve procedures for timber sales and awarding concessions to increase transparency and accountability</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly motivated staff in public forest administration/enterprises</td>
<td>• Increase proportion of timber sold/concessions awarded through competitive bidding</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized and corrupt financial audit system</td>
<td>• Reorganize public forest administration to increase staff motivation</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Enhance effectiveness of financial audits on public forest administration/enterprises</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improve data management and transparency in public forest administration/enterprises</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strengthen cooperation with police force and judiciary</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Amend penalty code</td>
<td>S</td>
</tr>
<tr>
<td>Evasion of taxes, royalties, and other fees by enterprises</td>
<td>• Unreasonably high tax burden in relation to timber price and general tax level</td>
<td>• Adjust taxes as appropriate</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized and corrupt financial audit system</td>
<td>• Impose sanctions on enterprises found guilty of tax evasion</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Inadequate accounting systems in private enterprises</td>
<td>• Enhance effectiveness of financial audits on enterprises</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Oblige enterprises to provide required information in an easily accessible form</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strengthen cooperation with police force and judiciary to achieve minimum acceptable level of compliance</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Amend penalty code</td>
<td>P</td>
</tr>
<tr>
<td>Evasion of taxes, royalties, and other fees by communities or private forest owners</td>
<td>• Low risk of sanctions</td>
<td>• Adjust taxes, royalties, and other fees to a level where most communities/private forest owners would make the payments voluntarily</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Inadequate accounting systems in private enterprises/communities</td>
<td>• Promote sound accounting practices in community forestry</td>
<td>D</td>
</tr>
</tbody>
</table>
### Table A.1: Potential Drivers and Forest Law Enforcement and Governance Responses to Forest Crime (cont.)

<table>
<thead>
<tr>
<th>Typical contexts</th>
<th>Potential drivers (motive, means, opportunity)</th>
<th>Potential responses</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Enhance effectiveness of external financial audits on community forests and private woodlots within the limits of available resources</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Strengthen cooperation with police force and judiciary to achieve minimum acceptable level of compliance</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>• Amend penalty code</td>
<td>• Amend penalty code</td>
<td>P</td>
</tr>
<tr>
<td>Circumvention of labor laws</td>
<td>• Indifferent attitude in enterprises toward labor laws</td>
<td>• Impose sanctions on enterprises found guilty of circumventing labor laws</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized and corrupt oversight</td>
<td>• Impose sanctions or disciplinary actions on companies proven to circumvent regulations</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Strengthen cooperation with police force and judiciary to achieve minimum acceptable level of compliance</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>• Amend penalty code</td>
<td>• Amend penalty code</td>
<td>P</td>
</tr>
<tr>
<td>Unauthorized wood processing</td>
<td>• Strong domestic and export demand encouraging unauthorized wood processing and illegal logging</td>
<td>• Enable an increase in authorized processing capacity by increasing legal timber supply</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Excessive bureaucracy related to licensing</td>
<td>• Simplify licensing procedure</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized and corrupt oversight</td>
<td>• Impose sanctions or disciplinary actions on companies proven to circumvent regulations</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Strengthen cooperation with police force and judiciary to achieve minimum acceptable level of compliance</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td>• Amend penalty code</td>
<td>• Amend penalty code</td>
<td>P</td>
</tr>
<tr>
<td>Wildlife poaching</td>
<td>• People unable to meet their basic needs</td>
<td>• Legalize illegal use and/or simplify regulations concerning access to wildlife resources</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Lack of/high cost of alternative sources of food</td>
<td>• Create opportunities for income generation</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Poverty</td>
<td>• Offer alternative sources of food</td>
<td>P</td>
</tr>
<tr>
<td>Wildlife poaching to engage in trade in animals and animal parts</td>
<td>• Poverty</td>
<td>• Create opportunities for income generation, reduce bureaucracy and fees associated with legal timber harvesting</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Complex legal procedures to hunting of wildlife</td>
<td>• Clarify hunting rights with focus on rural poor</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Disputes over hunting rights</td>
<td>• Strengthen wildlife law enforcement</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Poorly organized, under-resourced, and corrupt wildlife law enforcement</td>
<td>• Improve internal control of law enforcement staff</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Corrupt community leaders</td>
<td>• Improve internal control in communities</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Criminal groups organizing illegal hunting by recruiting rural poor</td>
<td>• Strengthen cooperation with police force and judiciary and target the organizers/financiers behind these activities</td>
<td>D+S</td>
</tr>
<tr>
<td></td>
<td>• Inefficient legal procedures</td>
<td>• Amend forest-related legislation and penalty code</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>• Use anti-money-laundering and asset forfeiture laws</td>
<td>• Use anti-money-laundering and asset forfeiture laws</td>
<td>P</td>
</tr>
</tbody>
</table>
### Table A.1. Potential Drivers and Forest Law Enforcement and Governance Responses to Forest Crime (cont.)

<table>
<thead>
<tr>
<th>Arson</th>
<th>Potential drivers (motive, means, opportunity)</th>
<th>Potential responses</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arson associated with subsistence-level slash-and-burn agriculture</td>
<td>• Poverty • Lack of viable alternative agricultural systems • Marginalization and disempowerment of indigenous peoples</td>
<td>• Land tenure reform • Agricultural intensification • Legal reform to decriminalize slash-and-burn agriculture</td>
<td>P+D</td>
</tr>
<tr>
<td>Arson associated with large-scale land clearing for commercial agriculture</td>
<td>• Biased policies and incentives • Weak regulatory controls of land development</td>
<td>• Policy reform based on strategic environmental assessment • Regulatory reforms to monitor and control land development</td>
<td>P+D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Encroachment</th>
<th>Potential drivers (motive, means, opportunity)</th>
<th>Potential responses</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion of forest land associated with subsistence-level slash-and-burn agriculture</td>
<td>• Poverty • Cyclical unemployment</td>
<td>• Land tenure reform • Agricultural development • Stabilization policies</td>
<td>P</td>
</tr>
<tr>
<td>Conversion of forest land associated with large-scale land clearing for commercial agriculture</td>
<td>• Distorted policies • Corrupt land access arrangements</td>
<td>• Policy reform • Anti-money-laundering and asset forfeiture laws</td>
<td>P</td>
</tr>
</tbody>
</table>

Source: Adapted from Puustjarvi (2006b).

**Note:** P, prevention; D, detection; S, suppression.
1. The global annual value of timber logged illegally on public lands (US$10 billion) was estimated through a weighted average of (available) country level estimates of illegal logging and scaling up by the estimated area under forest cover. The annual global value of taxes and royalties evaded on legally sanctioned logging (US$5 billion) was estimated by using a weighted average of taxes evaded from available country estimates and scaling up by the total (global) value of logging. These estimates give an approximate idea of the magnitude of the problem but mask country-specific variations, which are dealt with elsewhere in this report.

2. The Forests Team is part of the Environmentally and Socially Sustainable Development Vice Presidency.

3. While many use the term FLEG in a generic sense to describe the issue of forest law enforcement and governance, in an effort to distinguish the issue and specific activities related to the issue from the multistakeholder processes, this paper will use the acronym FLEG only to refer to these multistakeholder processes.

4. Lindsay, Mekouar, and Christy (2002) also assert that illegal activities in the forestry sector result from both failure to enforce legislation and inadequacies in the legislation itself.

5. However, while there is no internationally accepted definition of such key concepts of forest law enforcement and governance as illegal logging, much of this remains somewhat ambiguous and different stakeholder groups use different definitions to promote their agenda. In practice, exact definitions may only be possible at the national level based on consultation, discussion, and consensus building.

6. Difficulties in obtaining reliable estimates are due to the nature of the (illegal) operations, as well as errors and incompatibility in statistical data when indirect methods of assessment are used (comparison of production, consumption, export and import data). For a discussion on methodological issues see, for example, Blaser et al. (2005) and Ottitsch et al (2005).

7. The intelligence cycle (direction, collection, evaluation, analysis, and dissemination) is a tool employed in many law enforcement settings to rationalize the use of scarce resources in understanding the nature of criminal threats and to support a range of enforcement responses, including the collection of more intelligence, collection of actual evidence, and other responses. See, for example, World Bank/IMF (2005).

8. The G8 addressed illegal logging under its own Action Program on Forests, adopted in
the Birmingham summit in 1998. However, the implementation of concrete actions has been at the initiative of the individual G8 nations. The G8 2005 summit in Gleneagles maintained illegal logging as an issue on its agenda, and the final communiqué contains paragraphs referring to the issue, with specific references to the Congo Basin and the Amazon, and the need for action both by consuming and producing countries.


10. The first such workshop will be organized for the Amazon region in August 2006 in collaboration with the World Bank and GTZ, co-hosted by the Amazon Treaty Cooperation Organization and the government of Brazil. Subsequent workshops are planned for the Congo Basin and Central America.

11. Cameroon, Democratic Republic of Congo, Republic of Congo, Ghana, Madagascar, Mozambique, Cambodia, China, Indonesia, Papua New Guinea, Russia, Bolivia, Brazil, Ecuador, Honduras, Mexico, Peru, and India.

12. This assessment is based on a desk review of project appraisal documents for all stand-alone forestry projects (that is, those projects coded as 100 percent forestry), all projects in any sector coded with at least 10 percent forestry (“forest component” projects), and all full-size Global Environment Facility projects coded as either Forest Ecosystem or Mountain Ecosystem. This is believed to capture the vast majority of projects with forestry-related activities. All projects were active as of November 15, 2005.

13. Financial figures presented here should be interpreted with caution, as they are estimates based on available data. Project documents often do not provide sufficient detail to separate out costs of individual forest governance activities. Despite this, it has been possible to ascertain general trends concerning the Bank’s support for forest governance in its forestry portfolio. Where possible, information has been confirmed by task managers.

14. Economic and sector work refers to activities that involve analytical effort with the intent of influencing client countries’ policies and programs and comprise formal and informal studies of critical issues, either at the country level or for specific sectors. This work has traditionally underpinned the lending and investment operations. Nonlending technical assistance is the transfer of skills and knowledge for developmental purposes and a key instrument for improving policies and project design, enhancing skills, and strengthening implementation capacity.

15. High-risk countries are characterized by high levels of state capture and high levels of state corruption and pose the toughest challenge in terms of reforms. These countries also present substantial fiduciary and reputational risks to the Bank (World Bank 2006d).

16. Department of Institutional Integrity was set up in 2001 and is primarily responsible for assessing the vulnerability of the Bank’s portfolio to corruption and illegal practices.

17. Benin, Haiti, Bolivia, Colombia, Ecuador, Ghana, Guatemala, Guinea, Honduras, Mozambique, Madagascar, Paraguay, Peru, São Paulo, Brazil, Sierra Leone, and Zambia. For more detailed information go to http://www.worldbank.org/wbi/governance/capacitybuild/d-surveys.html#reports.

18. A proposal under considerations proposes bringing down this threshold level to US$10 million.


20. LEGEN has been actively supporting the Bank’s regional FLEG processes, including the preparation of the Africa Forest Legislation...

21. See, for example, (FAO 2005) and the *Oxford Handbook of Criminology*.

22. For an example and references to the standard economic analysis of crime and punishment see Akella and Cannon (2004).

23. An assessment of illegal logging in 10 countries was carried out based on available documents covering Cambodia, Myanmar, and Indonesia from Asia; Cameroon and Liberia from Africa; Brazil and Honduras from Latin America; and Armenia, Russia, and Serbia from Eastern Europe and northern Asia.