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**Forest law enforcement and governance:
progress in Asia and the Pacific**

Edited by

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**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
REGIONAL OFFICE FOR ASIA AND THE PACIFIC**

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Foreword

The forestry sector in Asia and the Pacific is undergoing sweeping and rapid change. Recent years have seen an increase in demand for both wood products and forest-related environmental services. This demand is anticipated to intensify further in coming years, bringing with it the potential for significantly greater revenue for forest goods and services. To successfully capture these emerging opportunities, countries will need to demonstrate effective forest law enforcement and governance (FLEG), and instill confidence among buyers (of both goods and services) that steady progress is being made in efforts to manage forests sustainably.

Forest law enforcement and governance: progress in Asia and the Pacific documents the efforts of 16 countries in the region to combat illegal forest activities. It is hoped that this publication will serve to identify and encourage the implementation of promising strategies and approaches in the fight against illegal and unsustainable forest practices. Rather than providing an in-depth analysis on the extent of issues and problems related to forest law enforcement and governance, this publication provides an overview of the key FLEG initiatives and activities in each country, highlighting important achievements and the foundations for moving forward.

The recommendation to conduct this review was made by country delegates at the twenty-second session of the Asia-Pacific Forestry Commission (APFC), convened in Hanoi, Viet Nam, in 2008. Delegates to the APFC session recognized that while many countries are currently implementing a range of FLEG initiatives, there was no clear and comprehensive picture of what was actually being done, or how to best build upon current efforts. The idea was further discussed and supported by the ASEAN Regional Knowledge Network on FLEG (ARKN-FLEG) and the review linked to the “Work Plan for Strengthening Forest Law Enforcement and Governance (FLEG) in ASEAN 2008–2015”. The subsequent development of a standardized reporting framework and organization of the regional workshop was a collaborative effort by FAO, the Association of Southeast Asian Nations (ASEAN), German Technical Cooperation (GTZ), the World Bank and the Institute for Environment and Development (LESTARI) of the Universiti Kebangsaan Malaysia.

This publication clearly demonstrates the region’s commitment to improving forest law enforcement and governance and countries’ recognition of the importance of FLEG for achieving sustainable forest management. It also represents the first effort in the region by which countries have used a common systematic approach for taking stock of FLEG-related activities, allowing for greater ease in sharing knowledge and ideas. It is hoped that the wealth of information and experience reflected in this publication will lead to improved policy making and management decisions that will further strengthen the forest law enforcement and governance framework so vital if countries are to benefit from new opportunities in forestry, such as through carbon finance and certification of forest products.



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The development of the country paper guidelines and the organization of the regional workshop was a collaborative effort of the Food and Agriculture Organization of the United Nations (FAO), ASEAN, the German Technical Cooperation (GTZ), the World Bank and the Institute for Environment and Development (LESTARI) of the Universiti Kebangsaan Malaysia. The organizers are grateful to the German Federal Ministry for Economic Cooperation and Development (BMZ), the Australian Agency for International Development (AusAID) for a study on linkages between forestry and corruption in Asia and the Pacific, the World Bank trust fund for forest law enforcement and governance (funded by the European Union and the UK Department for International Development - DFID, currently part of the Program on Forests - PROFOR) for their financial contributions and support.

Special thanks go to LESTARI and Universiti Kebangsaan Malaysia for providing support in organizing and facilitating the regional workshop. Thanks are also extended for the excellent attention to detail in taking notes during the workshop, which made the summary chapter in this publication possible. Special recognition goes to Dato' Shaharuddin Mohamad Ismail, member of ARKN FLEG, and his LESTARI team (Prof Dr Mazlin Mokhtar, Dr Ahmad Hezri Adnan, Ms Sarah Aziz Abdul Ghani Aziz and Ms Lee Jing) for their untiring efforts in hosting and supporting the regional workshop.

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Reviewing FLEG progress in Asia and the Pacific

Michael J. Pescott¹ and Patrick B. Durst²

Overview

Forest law enforcement and governance (FLEG) is a specific and recognizable field of professional practice within forest management. Indeed, a country's FLEG framework provides the foundation for combating forest crime and for realizing the true potential that sustainable forest management (SFM) can contribute to socio-economic development. With increasing demand for wood products and for environmental services in Asia and the Pacific, the value of strengthening FLEG will undoubtedly increase in the future.

The past 10 to 15 years have seen a marked increase in the number of initiatives aimed at strengthening FLEG in the region, with notable achievements in many countries. Despite recent progress, however, current rates of illegal logging, land encroachment, illegal wildlife trade, wildland arson, tax evasion, corruption, money laundering and other forest crimes indicate that there is still much work to be done in many countries. While reliable figures on the extent of forest crime and effectiveness of recent initiatives are limited, some estimates suggest that illegal logging, for example, represents as much as 50 percent of what is procured legally in some Asia-Pacific countries.

In this context of recent progress, limited information and remaining challenges, it is timely to review the many FLEG initiatives underway in the region and exchange ideas for further strengthening of efforts. The papers in this volume aim to provide an overview of the current FLEG-related initiatives for 16 of the most forest-rich nations in Asia and the Pacific. Each paper was prepared by the country's principal forestry agency using a comprehensive and balanced framework to systematically map, compare and benchmark national progress.

The papers were subsequently used as the basis for discussion at the Asia-Pacific Regional Workshop on Strengthening Forest Law Enforcement and Governance (FLEG), convened in Kuala Lumpur, Malaysia, 30 November to 1 December 2009. This publication includes a summary of the regional workshop and background to the country reporting framework, together with 16 country papers and ancillary contributions.

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Background

Momentum has been building towards strengthening FLEG in Asia and the Pacific, due largely to the increasing awareness of the beneficial effects that effective forest law enforcement and governance can have, such as on encouraging investment, generating national revenue and strengthening democratic institutions. For Asia and the Pacific, this momentum was marked formally by the Bali Declaration in 2001, when FLEG was the focus of the East Asia Ministerial Conference, held in Bali, Indonesia, in 2001. The conference affirmed participating countries' commitments to reduce illegal logging and corruption, and laid the foundation for increased cooperation in addressing FLEG issues in the region.

Moving beyond multilateral agreements, countries in the region have implemented a variety of actions (e.g. improving national legislative frameworks and enforcement strategies, boosting institutional staffing and budget capacities, advancing forest crime prevention, detection and suppression strategies and improving monitoring and transparency on the results of FLEG implementation). Concurrently, several countries have strengthened economic governance and stakeholder participation.

In addition to these actions primarily undertaken by national governments (detailed in the country papers), various international initiatives have emerged over the last decade, including the European Union's Forest Law Enforcement, Governance and Trade (FLEG-T) process, along with numerous national and regional capacity building and stakeholder dialogue processes supported by the World Bank, FAO, ASEAN (e.g. ARKN-FLEG),² GTZ on behalf of BMZ and various NGOs (see the regional workshop summary for more details). These initiatives also support countries to adapt to emerging international trade regulations, notably the Lacey Act Amendments (2008) of the United States and European Union's Due Diligence Regulation (Box 1). Various conventions and international frameworks are also having an increased role in relation to FLEG.³

Despite these numerous achievements, reliable figures on the extent of forest crime and effectiveness of recent initiatives have been limited. Rates of illegal logging can to an extent be determined through discrepancies in trade statistics (Table 1). The accuracy of such estimates is, however, still limited by effective on-the-ground monitoring and reporting of timber harvesting and through supply chains. This can be difficult due largely to the remote and illicit nature of these crimes; however improvements in infrastructure, new technologies and other emerging factors offer promising prospects for addressing FLEG-related challenges. Equally important for enhancing systems of information and data collection, is improving reporting and dissemination of findings to interested stakeholders, including senior government officials, policy-makers, enforcement agencies, field crews and the media.

² The ASEAN Regional Knowledge Network on FLEG (ARKN-FLEG) was established to encourage the use of regional knowledge networks (expert pools) to better inform ASEAN decision-makers. It is composed of FLEG experts from leading research institutions in ASEAN and among the ASEAN Senior Officials on Forestry – ASOF as network members as well as leading international experts as resource persons.

³ Such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Biological Diversity, World Heritage Convention and Convention to Combat Desertification, as well as the International Tropical Timber Agreement, APEC Environmental Vision Statement, the Apia Convention on Conservation of Nature in the South Pacific, and the South Pacific Regional Environment Program (SPREP).

Regardless of the lack of information, current estimates clearly indicate that the effect of forest crimes – including those related to non-wood forest products (NWFPs), plants and animals (which have shown a rapid increase in trade in recent years) – is causing significant environmental damage and is limiting the ability of the forestry sector to reach its full potential. Some estimates suggest that illegal logging alone causes annual losses in government revenue of as much about US\$5 billion, and additional losses of forest resources from public lands of at least US\$10 billion to US\$15 billion per year (World Bank 2008). This illegal logging represents as much as 50 percent or more of what is procured legally in some countries (Schloenhardt 2008).

In the meantime, progress towards SFM continues to be hampered by illegal activities in many countries and investments in forestry continue to accrue high risk premiums due to unclear property rights, poor institutional management capacity (for example staff, expertise and equipment), weak law enforcement, government and industry corruption, coupled with a high transaction costs and high demand for alternative land use. While some progress has been made, the proportion of natural production forest under SFM has remained very low. In Asia, for example, only about 12 percent of the natural permanent forest estate is estimated to be under SFM and only 5 percent of the natural production permanent forest estate was recognized as being sustainably managed in 2005 (ITTO 2006).

More positively, recent years have seen progress in some measurable indicators towards SFM, such as demand for certified timber and NWFPs, international donor support and payments for environmental services. These markets have risen largely as a result of the increasing global awareness of the issues surrounding deforestation and the important roles forests play in mitigating climate change, providing clean and safe water and reducing poverty. Reduced Emissions from Deforestation and Degradation (REDD), for example, could work to provide incentives for certified timber from SFM; however this will require strong FLEG systems that can accurately monitor, report and control legal and illegal logging operations, wildland arson and land encroachment. With appropriate forest policy and management aimed at attracting and delivering emerging sources of finance, there is now great potential for the true financial and long-term benefits of SFM to be realized.

Country reporting and the regional workshop

Recognizing a lack of documentation of FLEG activities, delegates attending the twenty-second session of the Asia-Pacific Forestry Commission, convened in Hanoi, Viet Nam, in April 2008, requested FAO to coordinate a regional review on FLEG progress and initiatives in the region. The suggestion stemmed from the understanding that while many countries were implementing FLEG initiatives, there is no clear picture of what is actually being done and how best to build upon current efforts to further strengthen FLEG. The subsequent development of a reporting framework and organization of the regional workshop was a collaborative effort built upon extensive previous work by the Food and Agriculture Organization of the United Nations (FAO), ASEAN, the German Technical Cooperation (GTZ) and the World Bank.

For ASEAN, FLEG implementation is guided by the Work Plan for Strengthening Forest Law Enforcement and Governance (FLEG) in ASEAN 2008-2015. ARKN-FLEG provides policy options and advice to better inform ASEAN policy-makers on effective FLEG policies and implementation. ARKN-FLEG provided a facilitating role in conceptualizing the country paper framework and organizing the joint workshop through ASEAN and its partners. The implementation of the ASEAN work plan and other FLEG work in the ASEAN Member States has been supported by the World Bank, FAO and GTZ on behalf of the German Federal Ministry for Economic Development Cooperation (BMZ).

FAO, in its capacity as Secretariat for the APFC, provided leadership in carrying out the requested 'stocktaking' review of FLEG initiatives in Asia and the Pacific in collaboration with ASEAN and other partners. FAO has regularly facilitated dialogue on FLEG issues and has worked to document best practices in forest law enforcement and governance (FAO 2005). FAO recently launched a FLEG-T support programme, which has a strong focus on improving legal framework, capacity building and information sharing in Pacific Island Countries. A major supportive function of FAO involves the development and promotion of FLEG implementation tools and protocols, including codes of practice for forest harvesting, reduced impact logging guidelines and monitoring and evaluation procedures.

The World Bank's work on FLEG falls under the Bank's Forest Strategy, which recognizes illegal logging and lack of appropriate forest governance as major obstacles to alleviating poverty, to developing natural resources sustainably and to protecting global and local environmental services and values. The World Bank actively supports a number of Asia-Pacific regional FLEG initiatives and hosts the Program on Forests (PROFOR), a multidonor partnership that also addressing forest governance issues, with a focus on fostering forest institutions that enable good governance. The PROFOR and the Bank's FLEG Trust Fund are designed to enable sharing of experiences among countries and is consistent with its other active cooperation with ASEAN partners.

Summary of the Asia-Pacific Regional Workshop on Forest Law Enforcement and Governance (Kuala Lumpur, Malaysia, 30 November to 1 December 2009)

The Asia-Pacific Regional Workshop on Forest Law Enforcement and Governance provided a forum for representatives from the region to share experiences with FLEG implementation and identify key issues and ways forward. A total of 75 participants attended the two-day meeting with most being country representatives from forest management and forest law enforcement institutions. Representatives of several non-government organizations, multilateral agencies, regional and international organizations and donor-funded projects also participated. A total of 14 countries were represented, including nine ASEAN Member States (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Viet Nam), China, Papua New Guinea (PNG), Solomon Islands, Sri Lanka and Timor-Leste. Of the 16 country papers presented in this publication, only India and Fiji were unable to attend the regional workshop.

The meeting commenced with welcome remarks from senior representatives of FAO, the World Bank, GTZ, the ASEAN Secretariat and the Malaysian Forestry Department. Among the key points highlighted were:

- There has been a perceptible change in attitudes related to illegal logging and associated trade, corruption, money laundering and discrepancies in trade statistics in the region, especially in the past ten to 15 years.
- Until recently, many countries were still in a period of ‘denial’ with regard to illegal forest practices and attempts to discuss these issues often collapsed because of the sensitivities involved; positively, attitudes have changed dramatically, marked in part, by the 2001 Bali Declaration from the East Asia Ministerial Meeting on FLEG.
- ASEAN’s FLEG initiatives were recognized as positive examples to promote a favourable policy agenda in support of FLEG activities.
- Strengthening FLEG will be a fundamental requirement for delivering forest-related climate change mitigation efforts, including REDD.⁴
- Developing a thematic approach for country reporting and sharing experiences from among the countries of the region are important elements in advancing FLEG objectives.
- Moving from political commitment to the realm of concrete actions is still a major challenge for many countries.

The workshop heard from two regional experts on the historical context of FLEG⁵ and emerging global demands.⁶ It was noted that in the early 1990s international consumer awareness only started to raise concern over the origins of wood and subsequently increasing the demand for ‘green’ wood. This change can be seen by the growth of forest certification schemes such as the Forest Stewardship Council (FSC) (Figure 1). This demand for certified legal timber is set to strengthen further with the emerging international import regulations, most notably, the United States Lacey Act Amendment and the European Union’s proposed Due Diligence Regulation (Box 1). However the costs involved with bringing a forest up to certification standard remain high, especially for natural forests. Unless countries can improve their capacity to efficiently manage natural forest areas more sustainably, these emerging markets will be underutilized. Part of the issue has been the uncertainty surrounding what good governance is and how to cost-effectively enforce the law, given resource constraints. Issues such as ensuring the legality of the timber through the entire supply chain are not possible without a strong system of regulation and law enforcement. Over time this has been clarified and a consensus on what good governance and law enforcement means has emerged gradually and comprehensively.

⁴ Deforestation and forest degradation account for approximately 20 percent of global carbon dioxide emissions and could generate up to US\$20 billion per year for global forest sectors, increasing the economic incentive for combating forest crime and promoting sustainable forestry.

⁵ Bill Maynard, Sustainable Forestry and Rural Development Project (SUFORD) Technical Advisor, Department of Forest Inspection, Ministry of Agriculture and Forestry Lao PDR.

⁶ Vincent van den Berk, Programme Coordinator, European Forest Institute, FLEG-T Asia.

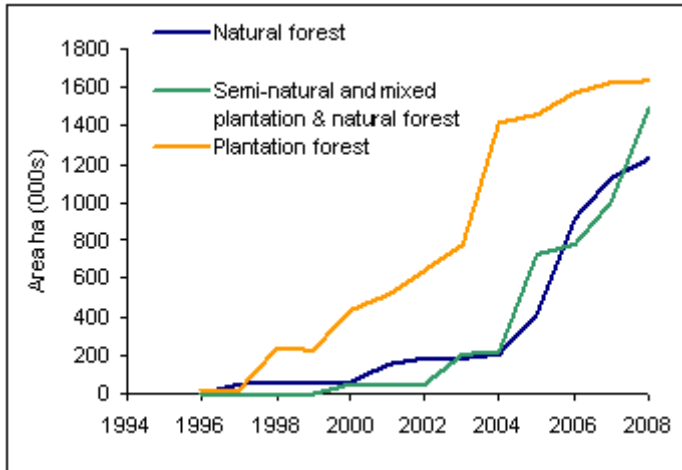


Figure 1. FSC-certified forest in Asia and the Pacific by forest type⁷

Within this context, workshop presenters put forward several strategies to strengthen FLEG in the region:

1. Demand-driven governance must be emphasized. This essentially means policy-making should cover both ends of the supply chain by designing common objectives and goals to avoid frustration.
2. For people on the ground, simplicity is key for success. Policy-makers and technical experts should avoid overcomplicating matters.
3. There is no substitute for experience. Countries best suited to utilize emerging markets (such as for certified timber) will have years of experience in implementing good governance and law enforcement on the ground.
4. Price and market access premiums for certified/legal tropical hardwood will provide additional incentives to improving FLEG and forest management.
5. Most countries could further benefit from streamlining forest legislation, strengthening social contracts, clearly defining responsibilities in law enforcement and clarifying forest ownership and use rights.

⁷ FSC data received December 2008, analysed by J.S. Broadhead.

Box 1. Policies impacting timber trade and illegal logging

Passed in 2008, the United States **Lacey Act Amendments** represents the world's first national legislation banning imports of illegally harvested wood and wood products. The legislation prohibits the trade of both animals and plants that were illegally harvested or traded in contravention of the laws of the country where the product was sourced. It also increases transparency by requiring importers to declare the species, country of origin and other related information.

In 2009, the European Parliament passed a proposal to strengthen legislation designed to remove illegal wood from the supply chains of forest products destined for the European market. Implemented through the **Due Diligence Regulation (DDR)**, the EU's proposal will prohibit the sale of wood products and timber derived from illegal logging and require data/information on the timber source, suppliers and recipients of the wood products. The legislation is expected to come into force within two years

Both policies are expected to have a significant impact on timber markets in Asia and the Pacific.

The workshop included country presentations and panel discussions, both of which provided extensive information on FLEG initiatives in the region, and helped to provide a clearer picture on what is being done to strengthen FLEG in each country. The following summary provides key points arising from the panel discussions:

Group 1: Cambodia, Lao PDR, Malaysia, Thailand and Viet Nam

- Participants emphasized the importance of dealing with corruption as a key issue that has transcended many layers from the grassroots to the political level in many countries. It is crucial to identify new strategies to solve this problem.
- Those who commit forest crimes should be made known to the public, and this in turn, requires cooperation from the media.
- Forest crimes are dependent on the wider social, economic and political status in each country, such as providing alternative livelihoods for the rural poor; thus interagency cooperation is required.
- Effective and established systems for prosecuting illegal forest activities are still lacking in many countries.
- Consumers of wood products, including developed countries in the region such as Australia and Japan and elsewhere in the world, need to take greater responsibility for the demand they create.
- The demand for clearing forest for agriculture is still the key driver of deforestation and must be addressed.

Group 2: China, Indonesia, Myanmar, Philippines and Sri Lanka

- Representatives from Indonesia and China recognized the need to strengthen FLEG relations between the two countries, in particular, ensuring proper documentation for establishing verification systems such as that adopted by CITES.
- It was recognized that much illegal timber trade has been conducted via fraudulent documentation and other trade manipulation measures.
- The need to build awareness of legal requirements and to make legal systems more transparent to local and international people involved with the supply chain was highlighted.
- Illegal logging will not be resolved unless there are changes in consumer behaviour and attitudes. There is still strong demand for illegal timber, hence the need for international and regional cooperation to address this situation.
- FLEG is a complicated and multifaceted issue that requires multidisciplinary approaches and strategies.

Group 3: Brunei, Papua New Guinea, Solomon Islands and Timor-Leste

- Because almost all forest land in the South Pacific is under customary ownership, there is much ambiguity about what constitutes 'illegal logging'. Logging rights must be approved by local landowners and through customary councils.
- There is a need to identify, document and promote more success stories related to good governance and leadership. Brunei was cited as a country with an effective FLEG framework in place; it has also been able to reduce pressure on forests due to its oil and gas export-based economy.
- Participants noted that economic development is generally associated with increasing demand for land and clearing of forests; thus, there is a need for more clearly defined alternative development models to avoid further deforestation.

In addition to country reports, the workshop included presentations outlining many of the key non-government and multilateral initiatives currently underway in the region.

The European Union's FLEG-T facility aims to address forest crime and related trade through various activities including Voluntary Partnership Agreements,⁸ public procurement policies, promoting the EU market legislation (see Box 1 on the Due Diligence Regulation) and by providing technical and financial assistance to timber-producing countries. Working within this facility, the European Forest Institute (EFI) manages EU funding for Asia with the overarching goal of building synergies and collaborating with existing regional initiatives and partners in Asia, such as ASEAN's ARKN-FLEG and Senior Officials on Forestry, Asia Forest Partnership, East Asia FLEG, ASEAN+3, APFNet and ITTO/FAO Promotion of Best Practices for Improving Law Enforcement in the Forest Sector. Key examples include the EU-China Bilateral Coordination Mechanism on FLEG, ongoing Voluntary Partnership Agreement (VPA) processes in Indonesia and Malaysia and identification of activities to assist enterprises assure the legality of timber trade among countries in the Mekong subregion.

⁸ VPAs between the EU and timber-producing countries to: increase trade in guaranteed legal timber between FLEG-T partner countries and the EU, set up control and licensing systems to provide a government-backed guarantee of legality and provide financial, technical and institutional support to improve forest governance.

Directly linked is the EC-Indonesia FLEGT Support Project, a cooperation project between the Government of Indonesia and the European Union. Supported by this project, the Indonesian Ministry of Forestry in late 2009 issued Decree No. P.38/Menhut-II/2009 & No. P.6/Vi-Set/2009 outlining criteria and indicators for certification for SFM (PHL) and verification of timber legality (LK). The decree covers state forest managed by the government and by communities for private forest and for timber originating from forest concessions. Both PHL and LK certifications are granted if operations have been assessed and approved by independent assessor and verifiers who are accredited by the National Accreditation Committee (KAN). Basically, all wood industries (up- and downstream) should have LK certification (concessionaires and industries), whereas only concessionaires should have PHL certification. Previously issued PHPL certificates (SFM certificates) are still valid until they expire.

The International Tropical Timber Organization's (ITTO) Thematic Programme on Tropical Forest Law Enforcement, Governance and Trade (TFLET) is a strategic approach established to tackle key problems of SFM in the tropics. The programme works to address flawed policy and legal frameworks, weak enforcement capacities, insufficient information, corruption and distorted market conditions. The programme also pursues improved transparency and effective management of supply chains, increased domestic and international trade of legally produced tropical timber, assessment of the status of tropical forest tenure, identification of alternative business models and improved capacity of community and small- and medium-sized enterprises in production and trade of tropical timber from legal sources.

TRAFFIC has focused efforts on identifying and tracking discrepancies between import and export figures to provide an indication of the level of illegal timber trade (Table 1). A number of factors can lead to discrepancies between import and export data, such as differences in product valuation, transfer pricing, inconsistent units and conversion factors, log-scaling methods, mixed products in shipment, errors in coding products according to the Customs Harmonized System (HS) for classification, reporting in different fiscal or calendar years, time lags between exports and imports, data entry errors, under invoicing and incorrect grading. Some discrepancies are a result of human error; some are attributable to legitimate trade factors; and some are a result of illegal practices. To improve the accuracy of international timber trade statistics and in turn strengthen efforts to manage illegal timber trade, the following actions are recommended:

- Systematic use of customs/excise export declaration forms as part of import protocol.
- Cooperation and reciprocal policy on timber bans between exporting and importing countries.
- Intelligence exchange between customs/excise, forestry and other relevant agencies.
- Harmonization of HS codes to 8 digits.
- Measurement units should be standardized for each product under the HS code.

- Prompt and detailed reporting and analysis of import and export data for early and accurate comparative analyses.

Table 1. Reported sawntimber exports and imports, 2000-2006 (m³)

Year	Country	Export	Country	Import	Difference	Variance (%)
2005	Malaysia	47 039	UK	47 222	-183	0
2002	China	272 217	Japan	286 456	-14 239	5
2000	USA	110 517	Taiwan P.O.C.	99 082	11 435	10
2006	Malaysia	24 036	Indonesia	18 012	6 024	25
2005	Malaysia	14 593	Indonesia	21 859	-7 266	50
2006	Hong Kong S.A.R.	353 919	China	227	353 692	100
2006	China	41 581	Taiwan P.O.C.	89 054	-47 473	114
2003	Indonesia	40 409	Japan	314 305	-273 896	678
2003	Indonesia	2 589	Netherlands	20 526	-17 937	693
2006	Indonesia	271	Taiwan P.O.C.	14 850	-14 579	5 389
2006	Indonesia	3 408	China	450 082	-446 674	13 107
2006	Indonesia	146	USA	21 289	-21 143	14 503

Source: Chen (2008).

The Center for International Forestry Research (CIFOR) has been researching and engaging with stakeholders regarding FLEG on a number of fronts, including: anti-money laundering, addressing the need for integrated forest law enforcement (ILEA) involving enforcement agencies, forestry agencies and industry, anti-corruption watchdogs and finance institutions; options for improving domestic timber markets (e.g. management, monitoring, registering and reporting of timber that is traded domestically as well as internationally); knowledge and management needs to deal with the likely increase in demand for pulp and paper; supporting the Asia Forest Partnership with its expanding role in exchange of information and experience on forest governance issues.

The Responsible Asia Forestry and Trade (RAFT) programme is implemented collaboratively by several partners: The Nature Conservancy, the World Conservation Union, the Center for People and Forests, the Tropical Forest Foundation, the Forest Trust, TRAFFIC, the International Union for Conservation of Nature and the World Wide Fund for Nature. The RAFT programme, which is funded by USAID, promotes SFM and responsible timber trade across Asia. A key issue being addressed is that forests are undervalued in comparison to alternative land uses, due largely to inadequate FLEG frameworks that would support a strong sustainable forest industry. As a result, many countries still experience high levels of deforestation, degradation and illegal logging, in particular Indonesia, Malaysia and PNG. Some reports suggest that as much as 10 percent (US\$3.8 billion) of wood imported into the United States may be illegal. Combating illegal logging and trade can only be effective if it is accepted as a shared responsibility by everyone along the value/supply chain – producers (like Indonesia), processors (like China) and consumers (like the United States). The RAFT initiative aims to address this by:

- Working to ensure SFM is incorporated into the emerging international REDD framework.

- Encouraging the use of documentation in trade, in particular a customs/excise export declaration form.
- Promoting customs/excise agencies to work together if there are any discrepancies in trade statistics.
- Encouraging collaboration, such as with East Asia Forest Law Enforcement and Governance (East Asia-FLEG), the Asia Forest Partnership, FAO's Asia-Pacific Forestry Commission (APFC), the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet), ITTO and ASEAN.
- Developing/implementing credible carbon stock monitoring for SFM (to support REDD finance, working as an incentive for legal and certified timber).

PROFOR is a multidonor partnership housed within the World Bank working to improve knowledge and approaches for SFM. The programme has a FLEG-focused activity for countries in the Mekong region. Countries in this region have increased their role in global timber trade while much logging in natural forest is still either unsustainable or unauthorized – or both. The Mekong Project is expected to focus activities on Cambodia, Lao PDR, Thailand and Viet Nam, while engaging key regional and global trading partners (e.g. China, Indonesia and the EU). Close linkages will be maintained with other ongoing regional efforts (e.g. EU FLEG-T and VPA negotiations). Among the project aims are introducing modern practices for crime prevention, detection and suppression; promoting efficiency and transparency in resource use, fiscal revenues and stakeholder participation; and targeting a balance between national initiatives and multilateral collaboration.

The World Bank is engaged in a number of efforts to strengthen forest crime prevention, detection, suppression and recovery efforts in the region. Core approaches include encouraging the development and implementation of Timber Theft Prevention Plans (Magrath et al., 2007); combating fraud and corruption; improving forest inventory to better assess and recover illegally harvested timber; reducing procurement fraud; anti-money laundering; encouraging procedures for highlighting politically exposed persons; and implementation of security surveys and security plans. Efforts are also being made to encourage regional and international collaboration among law enforcement agencies, such as through the INTERPOL Environmental Crime Program, Wildlife Crime (Operation Baba), Pollution Crime, Project Chainsaw, CITES, the UN Office on Drugs and Crime (UNODC) and the World Customs Organization (WCO).

World Bank efforts have also highlighted security implications of forest management choices and actions that can be taken to combat illegal activities. For example, it is important to consider the impact of different silvicultural systems, boundary definitions, harvest planning and infrastructure design on security issues such as the amount of valuable timber left within forest stands after logging, conflicts with the local public, the presence of forestry workers and access through logging and fire tracks. The World Bank also encourages a range of 'good forestry practices' such as controlling entry and exit points through fencing, gates and barriers (Plate 1), reducing the number of roads/access points, installation of appropriate boundary makers and signage (Plate 2) and regular patrolling and surveillance within forest areas (Plate 3).



Plate 1. Entry/exit point (courtesy Forest Practices Authority, Tasmania)



Plate 2. Boundary marker (courtesy W.B. Magrath)



Plate 3. Forest patrol (courtesy P.G. Krishan)

Perum Perhutani in Indonesia provides useful examples of efforts to develop effective timber theft prevention at the forest management unit level. The forest area of Perum Perhutani comprises 2.4 million hectares of state-owned plantations on Java and Madura and has a history of social forest management problems. Recent efforts to improve the situation include the corporate timber security, 'Drop the Gun Policy' and risk zoning. The results from a survey of field plots demonstrate that the Perum Perhutani security programme is credible and demonstrably effective; it is disseminated within enterprises, risk assessment-based, has access controls in place, transactions controls and chain-of-custody systems.

Given the extensive area of production forests (more than 97 million hectares) in just ten major forested countries of Asia and the Pacific, there are clear opportunities for implementing measures similar to those of Perum Perhutani in a number of other forest concessions in the region.

Workshop conclusions and recommendations

The final session of the workshop involved group discussions to identify key actions that have proved most successful, as well as key constraints, needs and emerging opportunities to strengthen FLEG. Among the points raised were:

Successful FLEG activities

- Improving coordination among neighbouring and trading countries, especially regarding trade and monitoring agreements.
- Making the legal framework clear and well known to stakeholders.
- Awareness building through education and communication campaigns among stakeholders including the forest industry/private sector.
- Clarifying institutional roles and responsibilities.
- Strengthening interagency cooperation, especially between joint enforcement agencies.
- Training of forest enforcement officers.
- Establishment of task/strike forces.
- Anti-money laundering efforts.
- Timber certification and external auditing.
- Involvement of local communities in surveillance.
- Computer-based transparent information on forest crimes and offenders.
- Remote sensing/aerial surveillance.
- Regular on-site field inspections and patrolling.
- External auditing.
- Adopting international anti-corruption policies (e.g. UN Convention against Corruption).
- Networking with the media (TV, radio, and newsprint) and NGOs.

- Use of informers.
- Emergency hotline (SMS, toll-free calls).
- Information/feedback boxes.
- Localization of income generation.
- Systems for forest crime reporting.
- Heavy punishments to deter illegal activities.

Key constraints and needs

- Inconsistencies and overlapping forest laws at national and subnational levels, between civil and criminal laws, between forest and non-forest laws and within regulations relating to customs/excise and trade, banking and anti-corruption.
- Access to transparent, reliable and timely information such as that which could be used for evidence in prosecution, especially with regard to the chain of evidence to link loggers, intermediaries and end users.
- Costs involved with staffing, training, equipment and information collection requirements for enforcement (i.e. detecting/monitoring, collecting evidence and prosecution).
- Government incentives for the private sector and local people for monitoring and to perform legal/registered operations.
- Independent supervision to reduce the potential for political interference such as with awarding concession areas.
- Cooperation and coordination between and among authorities/agencies.
- Clarity of the law, especially in defining who is responsible for addressing forest crimes and knowing which laws to apply.
- Market demand (i.e. not enough differential in price between legal and illegal logs).
- Rural poverty and associated dependence on forests for income.
- Infrastructure for monitoring.
- Interest from the media.
- Misleading information and poor education.
- Lack of human resources and political will.
- Weak court systems.
- Too many initiatives and confusion on the best approaches for FLEG.
- Integrity and transparency in land allocation processes.
- Clarity for responsibility in monitoring and enforcing the law.
- Better understanding of the extent and causes of governance issues (e.g. corruption, legal/administrative limitations).

Emerging opportunities

- Affordable technology for monitoring and reporting forest crimes (e.g. remote sensing, cell phones, computerized systems).
- Payments for environmental services such as carbon financing from REDD could provide incentives for building capacity to combat forest crime and for strengthening SFM.
- Increasing the number of international initiatives that provide financial and technical support.
- Land and forest tenure reform processes underway in several countries.

- Ecotourism, bioprospecting and other markets for non-wood forest products and services.
- Access to information through the Internet and other media for improved decision-making, transparency and public awareness.
- New livelihood opportunities, both within and outside the forestry sector, providing more alternatives to forest-dependent local people.
- Fast-track forest prosecution through special courts (e.g. green courts⁹ in the Philippines).
- Reward systems provided as incentives for authorities and informants.
- Geopolitical factors increasing transparent foreign direct investment.
- Increased ability for transboundary and interagency cooperation through improved ability to communicate through air travel, telecommunications, the Internet and international forums such as ASEAN, APFC, ITTO, etc.
- Tree genome tracking technology if employed with an appropriate registering system could work to prove whether a particular product comes from an illegal source.
- Increasing environmental awareness and commitment.

Upon reflection of workshop discussions and the presentation of country papers, participants put forward the following key issues to be addressed to strengthen FLEG in the future:

- Enforce forest and related laws equitably.
- Review conflicting and outdated laws.
- Enhance regional collaboration to combat illegal transboundary trade.
- Strengthen institutional capacity through training, resourcing and clarification of roles and responsibilities.
- Improved cooperation and coordination between and within national enforcement agencies.
- Promote government and industry transparency and anti-corruption measures.
- Increase frequency and accuracy of monitoring and reporting systems on law enforcement and measures of good governance.
- Promote information and data collection and incorporate into decision-making processes.
- Develop policy based on attracting investment and delivering to emerging markets for sustainably produced forest products and growing demand for environmental services.

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Assessing and benchmarking national FLEG systems

William B. Magrath¹

The papers in this collection represent an important contribution to the development of forest law enforcement and governance (FLEG) as a specific and recognizable field of professional practice within forestry and natural resources management. Law enforcement, and forest law enforcement in particular, is often mischaracterized as merely consisting of the use of state powers to arrest and prosecute alleged perpetrators of criminal offences (e.g. Colchester *et al.* 2006). Forest law enforcement is thus cast immediately as somehow socially suspect and potentially regressive. In many instances, law enforcement in forestry has been dominated by recourse to violence and force, has reinforced policies and institutions that are severely biased against poor people (especially indigenous forest-dependent groups and communities) and has often ignored a range of corrupt and criminal activities by politically privileged and protected elites and public officials. The risk that enforcement policy can go wrong is one of the key reasons why solid analytics and better diagnostics are needed.

As opposed to emphasizing coercion, a more constructive approach is to see forest law enforcement first as properly aiming at securing compliance with sustainable resource management and development, and second as consisting of a much more diverse set of policies and instruments than merely the use of state force. While definitions and usage vary slightly, there is wide agreement that crime prevention and detection are at least as important as suppression in forest law enforcement. And there is increasing recognition that recovery, in various forms, also needs to be seen as integral to compliance and enforcement.

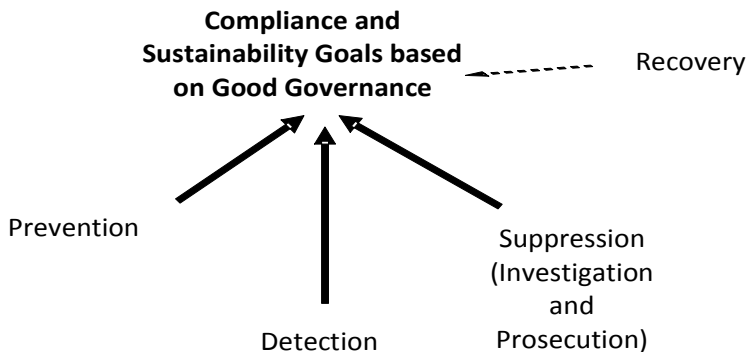


Figure 1. Components of natural resource law enforcement provide the basis for monitoring and reporting

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The authors of these country studies have assessed individual country forest law enforcement and governance efforts in this more comprehensive and balanced framework. This helps provide a basis for meaningful international comparison of law enforcement approaches and results and provides a basis for benchmarking both national level progress and forest law enforcement policy analysis. Over time, and on the basis of exchange and experience, the quality of data, analysis and methodology can improve, while at the same time this kind of process helps to improve the quality, effectiveness and justice of forest law enforcement.

This paper develops the key themes, underlying concepts, issues and forest practices relevant to formulating a comprehensive view of a country's forest law enforcement and governance policies and programme. It introduces the thematic elements used as the basis for the country paper guidelines (Appendix 1), by providing a freestanding overview of the kinds of issues that must be confronted by those responsible for natural resource law enforcement and governance policy. This information should be of interest in assessing and comparing policies and programmes in different countries and over time. Governance context is discussed first, providing a workable definition of the general concept as well as its more specific application to forest sector governance. This is followed by analysis of prevention, detection, suppression (including investigation and prosecution), and recovery components in which the underlying law enforcement issues are presented, along with examples of how they are presented in the forestry sector and how, at least in some countries, they are addressed.

The development of thematic elements used as the basis for country paper guidelines (Appendix 1) was a collaborative effort between the workshop organizers, and draws on a number of sources, notably, 'The use of the ASEAN Peer Consultation Framework in forest law enforcement and governance assessment in the Philippines that follows this paper. Appendix 1 also provides examples of initiatives under each of the thematic elements.

Governance context – enabling conditions and non-law enforcement

Governance refers to the manner in which public officials and institutions acquire and exercise the authority to shape public policy and provide public goods and services (World Bank 2007). Governance includes both the 'enabling conditions' for enforcing the law, as well as the capacity to manage broader economic and social factors that contribute to forest crime. In simple terms, governance is control. In forestry, it is the control of forest resources, of the decisions regarding their use and of the distribution of the benefits and costs that flow from alternative uses of forest resources. The likelihood that a forestry sector will be marked by compliance with laws and regulations is highly dependent on the quality of governance in society as a whole and as it underlies specific enforcement measures. An assessment of the law enforcement regime needs to begin with some consideration of the basis of control and authority over forest resources. Perceptions of legitimacy, fairness, predictability and other qualitative aspects of the ways in which control and power are gained and applied are at the heart of the assessment of governance.

Recent research and thinking about the *quality* of governance puts emphasis on the ways in which control is acquired and exercised and provides some ways to reduce reliance on purely subjective assessment. The quality of governance tends to be high when authority is acquired

on the basis of transparency and in accordance with formally recognized procedures.

Corruption is a result of the failure of governance and is defined as the misuse of office for private gain. As discussed in a World Bank report (2009), good forest governance is characterized by respect for the rule of law; low levels of corruption; robust institutions and high competence of officials and other functionaries who implement rules; willingness to address forest sector issues; and the sanctity of critical legal elements such as enforcement of property rights and voluntary contracts (World Bank 2009).

Poor governance erodes institutions and spreads corruption across the economy through a corruption contagion effect. The corrosive effects of illegal logging, especially on governance, are not confined to the forest sector. Forest products are bulky and illegal lumber could be easily intercepted by officials. So the connivance and corruption of a range of officials – customs/excise, police, local politicians and transport authorities – are needed for the industry to survive. Corruption in the forest sector is therefore contagious and weakens governance through other segments of the economy. The effects of corruption spread further by providing opportunities for money laundering, weakening the rule of law in forest areas, diluting the effectiveness of policies, generating trade distortions and disrupting legitimate economic activities more generally. Poor forest governance also ‘empowers’ criminals. Forest crimes such as illegal logging, illegal occupation of forest land, arson, wildlife poaching, encroachment on both public and private forests and corruption thrive in an environment of poor governance (Kishor and Damania 2007; Ross 2001; Seneca Creek Associates 2004).

The World Bank (2009) proposes five basic categories or building blocks that might be used to frame an assessment of sectoral governance:

1. Transparency, accountability and public participation.
2. Stability of forest institutions and conflict management.
3. Quality of forest administration.
4. Coherence of forest legislation and rule of law.
5. Economic efficiency, equity and incentives.

In addition, there is a range of additional specific questions relevant to an overall assessment of governance. These include whether a country has ratified the UN conventions against corruption and transnational organized crime, and is in compliance with their related obligations; whether the country is a member of the Financial Action Task Force (FATF) which establishes international standards with respect to anti-money laundering and the control of the financing of terrorists; whether the country has and enforces freedom of information legislation; whether forestry sector agency officials are required to disclose their assets and interests (see World Bank and UNODC 2009a); and whether the country has established an anti-corruption commission or similar independent body.

In the most general sense, the overall quality of governance in a country and the quality of governance specifically within the forestry sector can provide (or constrain) the ability of the institutions in or associated with the forestry sector to define good laws and to deliver compliance with them. From a starting point of exploring the governance context, an assessment of forest law enforcement can then turn to the specific prevention, detection, suppression and recovery building blocks.

Prevention

Crime prevention is simply the disruption of the mechanisms that cause crime (see Pease 1997; Hughes 1998; National Crime Prevention Institute 2001). Whether forest law enforcement in a country involves deliberate efforts to prevent crime should be one of the first and most important questions addressed by policy analysis. As suggested below, possibly one of the strongest methods of preventing forest crimes is the maintenance of a strong system of forest management based on technically, environmentally and socially robust practices. However, there can be much more to forest crime prevention. It is useful, therefore to frame an assessment of crime prevention within the current understanding of the root causes of crime.

Modern criminological theory proposes three general causes of crime: *structural*, *psychological* and *situational*. Individual criminal acts may have some origin in any or a combination of the three, and the overall crime problem of a country or an individual sector of the economy could also be the result of a combination of causes. As can be seen, the extent to which crime prevention efforts are feasible and likely to be effective will vary.

Structural

So-called structural causes of crime are those that derive from the ways in which societies are organized and structured. Economic disparities between rich and poor, gaps between urban and rural populations, between powerful and disenfranchised groups or between racial and ethnic groups are the kinds of structural features of a society that can contribute to crime.

In the discussions on forestry, one of the most frequently cited root causes of deforestation is poverty. While this may be a factor among many others, in discussions on illegal logging, arson and encroachment on forest land and many other natural resource crimes, it is too often asserted as the fundamental driver. This is often a simplification and misses other important factors. Nevertheless, there are needs-based crimes and, there is good reason to believe, as discussed in several papers in this collection, that rural poverty plays an important role in illegality in the forest sector. However, it needs to be recognized that poverty-driven illegality may also be due to unclear property rights or mismatch between customary and formal institutionalized rights; not criminal intent *per se*.

Differentials in power can also contribute to crime. In the case of forestry, it is often noted that rich and powerful elites are able to exploit their positions and privileges to take advantage of valuable natural resources. Greed-based crime can involve corruption or can be carried out through agents, operatives or contractors. There can obviously be close connection between the issues of overall governance and those that influence the ways that the distribution of power in a society can contribute to crime and corruption.

Whatever the specific socio-structural causes of crime in any particular setting, the essential preventive response is social change. Poverty reduction through rural and agricultural development, job creation policies and programmes, provisions of social services and forms of support to disadvantaged groups and communities may be justified on their own merits. But they can also be justified as a partial response to forest crimes, just as they are justified in many countries as part of a response to urban crime and violence.

To a large extent, responsibility for large-scale and widespread poverty reduction schemes is usually not the specific responsibility of forestry authorities. It can therefore be difficult, as a practical matter, to mobilize such efforts in response to illegal activity affecting forests. However there are many examples of forest authorities taking a lead role in localized rural development efforts targeting communities living near threatened forest areas. Programmes to empower local community members as forest guards and forest and land tenure reform programmes, all reflect elements of a structural crime prevention approach.

By some definitions, efforts aimed at changing behaviour in global timber markets can be classified as responses to structural causes of crime. To the extent that markets for wood fail to differentiate between legally and illegally obtained material, schemes such as the European Union Forest Law Enforcement Governance and Trade (FLEGT) programme or the Due Diligence provisions of recent European Union (EU) legislation or those of the recent amendments to the United States Lacey Act are efforts to influence the structure of trading relations so as to prevent criminal activity. Engagement by governments in support of programmes and efforts such as Voluntary Partnership Agreements currently negotiated between the EU and timber-producing countries, promotion of sustainable forest management certification systems, efforts to attract businesses committed to corporate social responsibility and dissemination of information about the attractiveness of markets for so-called ‘good wood’ can all be seen as parts of a crime prevention strategy. These kinds of efforts are aimed at addressing structural aspects of the forest sector that make it predisposed to crime risks. As discussed below, it will usually be necessary to simultaneously develop complementary initiatives at the operational level to reinforce and enable changes in incentives and motivations that can be delivered through structural crime prevention.

Psychological

Less frequently cited in contemporary discussions of forest crime in developing countries are causes of crime that arise from individuals or small groups that are arguably based on defects of character or mental capacities. Many psychological theories of crime have been advanced over the years, including in forestry, and many have been discredited. As recently as the 1940s for example, professional anthropologists working for the United States Forest Service attributed an irrational love of fire among people in poor rural communities in Florida as a factor leading to repeated incidents of wildland arson (Shea 1940). To the extent that crime arises from defects in individuals, prevention prescriptions revolve around changing the individual either through some form of rehabilitation or by incarceration.

Situational crime prevention

While structural and psychological theories of crime may explain some crimes, neither can explain nor help prevent all crimes. In any case, neither provides much guidance or advice to the forest manager. In contrast, *circumstantial* or *situational theories* of crime generally posit that crime is opportunistic and can occur when the environment permits. Situational crime prevention has been defined as: “a pre-emptive approach that relies not on improving society or its institutions, but simply on reducing opportunities for crime” (Clarke 1992). While situational theories of crime and crime prevention also are limited and incomplete, they are of particular interest because they propose proactive measures (Appendix 2). Many of the generic crime prevention techniques listed can be concretely applied in forestry, and many are

within the scope of control of forest managers. Measures to increase effort, which include target hardening and access control, directly raise the costs of crime by making it physically more difficult. Examples include stronger gates and locks and higher fences. These measures could include even more exacting and demanding processes that make crime more costly and difficult.

Specialists distinguish *deterrence* from *prevention* based on whether the crime disruption mechanism operates through the prospective criminal's perception of risks and reward or effort. Effectively, deterrence can be seen as one form of prevention. Increasing risks includes measures that affect the potential criminal's perception of the probability of being detected, apprehended and punished. Perceptions are the critical dimension; risk-increasing measures involve important psychological and information considerations. For example, to immediately discourage crime perceptions can be affected directly by employing conspicuous security patrols. Perceptions also can be shaped to create a belief that, over a longer period, criminal activity will be pursued and effectively punished. Deployment of cameras and other surveillance systems, and their use as sources of evidence in court and other proceedings, can create recognition that a business or property is a risky target. Boundary marks, signs and notices are other potentially risk-increasing measures, provided that the perception is created and maintained that restrictions are meaningful and will be pursued. Reducing the reward of forest crime can be more difficult, at least by managers at the forest management unit (FMU) level.

The analysis of situational causes of forest crime carries over almost entirely into a need to examine the quality and coverage of sustainable forest management. Basic indicators of the quality of forest management, such as area covered by approved forest management plans, enforcement of codes of practice, extent of independently certified sustainable forest management, provisions for definition of a permanent forest estate and protected areas' effectiveness (WWF and WB 2007), are all relevant to an assessment.

Situational crime prevention at the FMU level is discussed at length by Magrath *et al.* (2007) who highlighted four basic dimensions of FMU-level crime prevention practices:

- Attention to the extent to which basic forest management planning decisions, such as compartment and coupe layout, road development, harvest scheduling and choice of silvicultural system are made in recognition of their impacts on and connections to threats and vulnerabilities.
- Effort exerted to implement *access controls* to manage entry and exit to and from the FMU and to limit the presence of potential criminal threats while permitting access to legitimate users. These can range from physical barriers, to signage systems, to surveillance and patrols.
- Adoption of timber transaction processes and controls, with appropriate separation of financial management responsibilities from physical resource custody, chain-of-custody hardware and software systems, accounting controls and related systems to minimize risks of fraud and corruption.
- Integrated security planning, training and assignment of management and functional responsibilities for resource protection.

Magrath *et al.* (2007) also discussed ways in which public policies and forest-use contractual arrangements can promote or hinder adoption of enhanced security practices at the FMU level. These include whether forest concession fee and royalty arrangements indemnify managers from losses due to theft versus obligating concessionaires to pay for all removals whether by the concession or by illegal third parties; whether security performance is explicitly factored into concession renewal decisions; and whether concession contracts and forest management planning regulations specifically require preparation of written security plans. These are among the kinds of incentive issues that an analysis of forest crime prevention policy could explore.

Detection

The second key component of a forest law enforcement programme concerns the ways in which crime is detected. Law enforcement everywhere and in all sectors is handicapped because crimes go undetected, are unreported and misclassified and because information is not shared. Biderman and Resiss (1977) note, “the problem is well known: an activity which is by some criterion a crime may occur without being registered in the system devised to count it, thus reducing the accuracy of inferences from the data. This elusive subtotal is called ‘the dark figure of crime’.” These problems are particularly severe in the case of natural resources where the limited capacity of management and law enforcement agencies to recognize, understand and disseminate information on crimes and criminal activity represents a major challenge and limits both crime prevention and suppression.

Victims of many crimes are immediately and painfully aware of their victimization. People who are robbed, assaulted, whose homes are broken into or whose cars are stolen, recognize their loss and damages so personally and directly that the question of detection does not even arise. Many and possibly even most crimes, however, are not so immediately recognized. Shoplifting, for example, is a common and widespread crime. Shopkeepers and store clerks will sometimes observe shoplifters at work, but successful shoplifters are not detected and it can be some time, if ever, before a shopkeeper becomes aware of any losses.

Forest crime detection has a particular aspect that forest management agencies and policy-makers can find especially challenging because being subject to crime is seen as a sign of failed forest management, which makes forest crime detection a form of self-criticism. Many forest agencies have tended to use information on seizures and arrests as indicators of crime, but this is seriously biased to underestimate crime because this reflects law enforcement effort and incidents that are successfully resolved rather than all cases. This *moral hazard* problem is one of the issues that led to the development of various independent monitoring arrangements (Global Witness 2005).

In forestry and natural resource management, crime detection tends to revolve around several methods: Direct observation, recognition of losses (sometimes referred to as *shrinkage*) and the observation of discrepancies in records, statistics and transactions. Often indicators related to one or more of these concepts can be observed at the same time by different actors within the law enforcement system, and a key to performance is the effectiveness of criminal intelligence processes in assembling, organizing and processing information. How, and how well, systems of crime detection work in forestry are key questions for assessment.

Direct observation

Police detect a relatively small share of criminal activity. Police patrols monitor only small areas, will seldom see crimes in progress or be the first to observe evidence of crimes and will rely on reports from victims and witnesses. For many reasons, people may be reluctant to report crimes to the police. In many countries the police may be feared or people may see no advantage in reporting crime.

This is no different in forestry and especially forestry in developing countries. Forest officials are notoriously unable to be present in the areas of their responsibility. Forests are large, remote, unroaded and inaccessible. Budget-limited forest agencies are not equipped with vehicles or communications equipment and staff shortages make it unrealistic to build law enforcement around direct observation of illegal activity. The exception to this is where it is possible to organize deliberate and targeted surveillance either of sites and resources at special risk or through clandestine undercover operations targeting suspected illegal transactions. Systematic patrols with routes set out to optimize coverage of vulnerable areas are increasingly used in well-managed parks and protected areas. Systems of road and river check points, border crossing inspections and the stationing of guards around critical natural sites or human-induced installations can be components of both crime prevention and crime detection.

The use of information from the general public, from people themselves engaged in criminal conduct or from specially mobilized groups is another way some law enforcement authorities are able to expand their ability to monitor resources and detect crime. In the Philippines, for example, a system of multisector forest protection committees was at one time maintained as a valuable source of information and crime detection. Programmes in many countries have been developed to organize forest watch groups among local communities either on a voluntary or paid basis. In some countries, hunter groups have been organized to report suspected crimes in return for access to forest areas.

Patrols by game wardens in wildlife conservation areas and road check points in forest areas are among the direct observation methods deployed in many countries. In some countries, border and customs/excise guards may conduct searches at airports, rail stations and ports to look for evidence of endangered species traffic violations. These searches may be random or systematic or triggered by information provided by intelligence operations or by sources in other countries. The point for forest law enforcement assessment is not, in the first instance whether some technique or practice is better than another. The first priority is to note that detection methods are different. This enables comparison of the extent to which different countries' enforcement systems rely on different methods, laying out the potential for comparing and contrasting results.

An approach to crime detection that has recently attracted attention from those interested in forestry is the use of the tools provided by laws against money laundering (Setiano and Husein 2005). There are a number of forest-relevant features of the internationally recognized standard for anti-money laundering (AML) regimes. Of particular interest in relation to crime detection are provisions that place a legally binding burden on banks and related financial institutions to exercise care in the conduct of financial transactions so as not to be unknowingly involved in the concealment of crimes and to require reporting of suspicious

transactions to designated government agencies (usually termed financial intelligence units [FIU]). To be in compliance with ‘know your customer’ requirements, banks doing business with forestry firms should be aware of the general dimensions of their client’s legitimate operations, and should be properly suspicious when transactions are conducted that are inconsistent with the client’s normal, customary and legitimate business. Thus, a logging enterprise depositing revenues from wood sales that are far in excess of what would seem consistent with the company’s licensed harvest volume, ought to generate suspicion by a responsible bank. It is important to recognize that AML standards only require banks to diligently monitor the transactions they are asked to conduct and to pass on reasonable concerns to appropriate authorities. Banks are not called upon to conduct detailed investigations and are protected from risks associated with violation of bank secrecy requirements. Follow up to *suspicious transactions reports* (STR) is the responsibility of the FIU and other law enforcement authorities.

Similarly, a family member of a poorly paid public forestry official conducting large foreign exchange transactions could properly generate suspicion. The so-called politically exposed persons (PEPs) provisions of AML legislation call for enhanced due diligence by banks and financial institutions conducting transactions on behalf of senior government officials and in many instances forestry officials would come under these provisions. Whether a country has legislation following international best practice as defined by FAFT and whether the concerned institutions in the forestry sector have sensitized actors in the financial sector to the special concerns of forest law enforcement is an increasingly important set of considerations that merits assessment.

Shrinkage

In many industries managers estimate losses from theft by comparison of inventories from time to time after taking into account deliveries and sales. Changes in inventories that cannot be accounted for are termed *shrinkage* and, in the absence of other explanations (spoilage, deterioration, etc.) are attributed to theft. Similarly in forestry and wildlife management, reductions in forest area, stocking and wildlife numbers can be the basis of estimates of losses due to crime. Unfortunately, in many natural resource applications resource assessments, inventories and wildlife censuses are badly out of date or so inaccurate and imprecise as to be of little practical value in estimating losses to crime.

The relevance of the shrinkage concept to global forest crime is obvious. Forest laws in many countries specifically address the conditions under which forest conversion can occur and establish procedures to control and regulate conversion. Some countries have developed explicit land-use development plans that specifically call for conversion of forests and there are many instances of deliberate and legal deforestation. In principle, at least, it would be possible to establish an estimate of illegal activity by inventorying duly authorized forest land-use conversions and applying the results to an estimate of initial forest area.

Technological advances in remote sensing and forest inventory practices have the potential to make a contribution to detection of crime in forestry. Forest cover change detection has become dramatically easier and cheaper over the last 25 years due to improvements in satellite imagery, and especially in the wider and more timely availability of data and information. A factor confounding the use of technological methods for measuring resource changes to

detect illegal activity is the need for complementary data that enable normative judgement about the legal or criminal significance of an observation. For example, it is increasingly easy to identify, precisely locate and map removals from the forest. However, determining whether such a change is due to a legitimate management action, a natural event or a criminal act, will usually require supplementary information. In some cases, this may be readily available or easily resolved, as when a clearance or road network can be observed in a well-mapped protected area where such activities are clearly prohibited.

Discrepancies/deviations/exceptions

As is clear from the discussion of shrinkage as a basis for estimating illegal logging, a point of comparison is an essential starting point. Analysts seeking to estimate the extent of crime in forestry can look to comparison of a number of different indicators.

Trade statistics have frequently been used for this purpose. Table 1, based on Johnson (2002), shows how Indonesia’s log export figures consistently and significantly differed from China’s import figures from 1998 to 2000. Log export volumes reported by Indonesia were a remarkable 103 times lower than China’s reported imports in 2000 from that country (similar discrepancies were observed in Malaysia’s reported imports). These discrepancies might originate from many sources, some legitimate and some possibly criminal. Partly in response to what it has called rampant illegal log trade, Indonesia requested international assistance and restored its log export ban in late 2001. This established an important precedent in the International Tropical Timber Organization (ITTO), being the first time that importers were asked by an exporting country to, in effect, police the sources of their raw materials. As Johnson noted, “while the main responsibility of ensuring sustainable supplies continues to lie with exporters, importers will have to play a much larger role in this regard if illegal trade in timber products is to be curbed” (Johnson 2002). Such discrepancies have been noted for many sets of trading partners and there have been variations on the basic comparison. In a similar set of comparisons, for example, more recent studies for the World Bank showed that Vietnamese imports of logs and sawnwood from Cambodia and Lao PDR were large and growing during periods when logging and/or log exports had been officially prohibited or severely limited.

Table 1. Log exporting data (Indonesia) and log importing data (China), 1998-2000

Product	1998			1999			2000		
	Exports	Imports	% diff.	Exports	Imports	% diff.	Exports	Imports	% diff.
Industrial roundwood	28	35	25	88	382	334	6	618	10 200
Sawnwood	52	317	510	77	580	653	20	931	4 555
Plywood	873	1 000	15	452	558	23	439	595	36

In a similar manner, comparison of harvest planning figures with harvest realizations, log deliveries and mill output can potentially be used to assess the potential for illegal logging problems. Slightly more sophisticated would be comparisons of timber revenue results with plans in monetary terms and on the basis of conversion to physical volume terms. This would

be commonly done as part of operational and financial audits, and in many countries would be a potential for intersectoral oversight of resource management agencies by financial and economic authorities.

Closer to the FMU level, log tracking and chain-of-custody techniques have received much attention in relation to detection of illegal logging. A variety of log marking and tagging practices have been used in many countries for many years and new technologies such as optical character recognition bar coding, radio transponders, micro-tagent paints, are continually becoming available. The law enforcement significance of these systems essentially depends on their ability to contribute to the systematic generation of *exception reports*. In a management information system, exception reports result when values that should match do not reconcile. For example, the volume of logs felled in a cutting coupe should equal the volume of logs transported to and from an associated landing. If these values do not reconcile, it could be that logs are being illicitly diverted or there could be other legitimate explanations (measurement error, breakage). An exception report would raise a *red flag* indicating a departure from the expected, normal or customary result and signal the need for follow-up investigation. In many situations, regular inconsistencies are normal and exception reports will be generated only on the basis of deviations that exceed the norms of experience. In addition to signaling risks of illicit activity, exception reports can also serve other management functions such as identifying needs for training or other measures. Red flags are indicators that are best formulated based on intimate knowledge of an enterprise's normal practices. To be routinely useful, red flags need to be established around clear definition and understanding of the kinds of transactions and events that characterize proper and legitimate business activity. Identification of risks and irregularities is difficult or impossible when business transactions are not standardized and are not recorded through standardized processes, forms and systems that are subject to routine review and special audits. For example, while it would be quite normal and expected for pre-harvest inventory results to differ from postharvest measurements, large and persistent discrepancies not due to fraud or theft might indicate a need for better training or equipment for inventory staff.

Actors in crime detection

An issue that may be of relevance in characterizing forest crime detection in some countries is the question of who is involved in detecting and reporting crime and how reports from different sources are received and considered. NGOs play an important role in detecting large-scale forest crimes. For example, Global Witness, a United Kingdom-based NGO, has been very active in investigating illegal logging activity, and in 2007 published a report detailing the involvement of Cambodia's ruling elite in ongoing illegal logging (Global Witness 2007). Similarly, the Environmental Investigation Agency has conducted investigations of suspected illegal logging in Indonesia and other places. Organizations such as Greenpeace, Chatham House and the Center for International Forestry Research (CIFOR) also conduct research that points to ongoing illegal logging activity. This publicly available information, as well as news reports in the media, can provide investigators and prosecutors with good sources of information to help target their detection efforts.

Another important source of information regarding potential crimes, as suggested earlier, can be the FIU, which compiles and analyses records regarding large cash transactions and suspicious transaction reports filed by financial and other institutions required to submit such

reports. If, for example, an investigator or prosecutor already has information that a particular individual or business entity is engaged in large-scale illegal logging, that person should be able to make an inquiry with the FIU to see if any reports of suspicious transactions have been filed or if any large cash transactions have been reported. If so, these reports may provide valuable information. In short, a wide variety of intelligence sources can be tapped to lead investigators to likely targets for further investigation.

Intelligence cycle

Red flags need to be acted on immediately and followed up rigorously. Not all red flags will signal genuine security problems or risks, and some may not be immediately actionable but could provide information that will be valuable in the future. In employing a system of red flags or other indicators, the concept of the *intelligence cycle* can be useful. To be useful in protecting resources from theft or other attacks, data and information on potential and actual threats must be collected, analysed and applied. Figure 2 illustrates the intelligence cycle, an iterative process that integrates surveillance results in resource protection programmes.

- *Direction.* Potential threats and vulnerabilities identified during FMU planning and from ongoing experience during implementation of the management programme should be targeted for monitoring and surveillance.
- *Collection.* Surveillance results from monitoring devices, guards, patrols, other staff and other sources should be assembled and collected.
- *Evaluation.* Collected information should be assessed to determine significance and validity.
- *Analysis.* Information should be analysed and reports prepared (for example, to law enforcement agencies) recommending responses such as filing charges or target hardening.
- *Dissemination.* Information ought to be delivered in usable form to decision-makers such as owners, managers, law enforcement officers or others who can direct actions or responses, including redirection of intelligence collection.

A functional intelligence cycle may involve a number of different agencies and may engage with different agencies on different issues. Direction to pursue general or specific information related to illegal logging, for example, may come from a natural resource agency, a prosecutorial authority or from a unit with financial sector regulatory authority. Similarly, roles

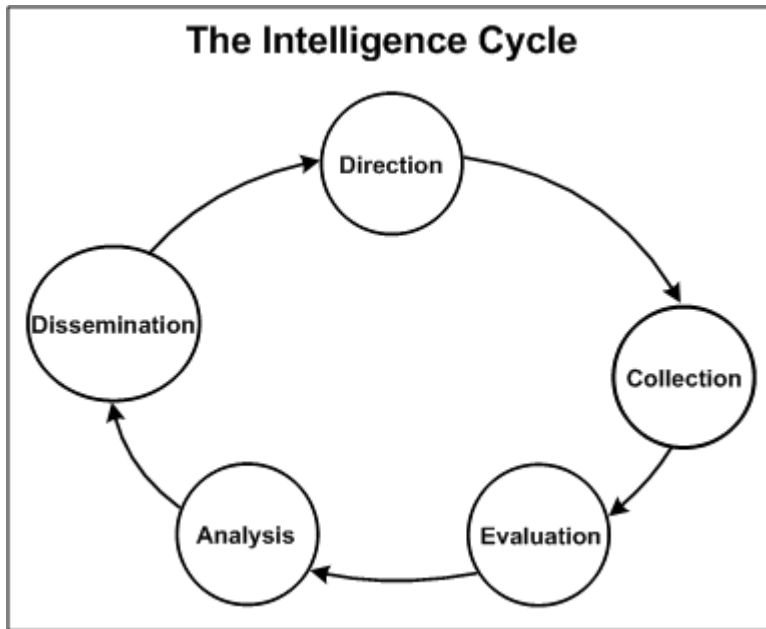


Figure 2. The intelligence cycle

Source: World Bank (2005).

and interests of different agencies with respect to intelligence collection, evaluation analysis and so forth will vary. From the perspective of assessing a forest law enforcement system, the key issues with respect to the intelligence cycle are: Whether roles, interest and responsibilities are generally clear for different functions; whether, in particular, responsibility for leadership in giving direction is clear and is actually taken; and whether involved agencies are held accountable in any meaningful way.

Suppression

All countries have criminal justice systems that are called on to address violence, defend property owners, protect the public and generally enforce the law. Results vary in degree, efficiency and impact, but in every country, the criminal justice system pursues, convicts and imposes sanctions against criminals. When applied in the forestry sector, however, the seriousness and effectiveness with which criminal sanctions are pursued stands in significant contrast with other areas of criminal justice, such as crimes against persons and property, narcotics and terrorism. This discrepancy reveals a problem in the policy response to illegal logging, which could stem from a lack of appreciation, lack of capacity or a lack of interest and willingness to enforce the law in the forest sector. Attention to these issues is vital to improving forest law enforcement policy. Better data and analysis on differing models and approaches from different country experiences could be a valuable contribution.

The need to resort to reactive response to crimes after they have occurred is both a suggestion of failure in other aspects of the natural resource management programme, and an opportunity for governments to demonstrate a genuine resolve and commitment to requiring compliance with sustainable resource management. Unfortunately, very few countries, including developed countries, are able to avoid the need to employ some reactive suppressive measures against offenders and it is important for an assessment of a law enforcement programme to explicitly examine the conduct and results of the investigation, arrest and prosecution functions that comprise the suppression element of the system. The precise organization of these law enforcement functions varies widely depending on a country's criminal law system, on the allocation of powers across and among general law enforcement agencies, specialized natural resource law enforcement agencies and natural resource management agencies. Variations from one system to another may carry identifiable benefits and costs. These can make pursuit of crime and criminals harder or more costly under some circumstance than others. In some countries, laws, traditions of justice and concerns for the rights of those accused of crimes have almost intentionally led to the emergence of systems that make law enforcement difficult and costly.

Forest law enforcement assessments need to bring these orientations and their implications into clear focus. Three basic assessment topics in respect of both investigation and prosecution are:

- Do those responsible for law enforcement know the law?
- Do they have the capacity (skills, equipment, mandates, etc.)?
- Do they want to enforce (political will)?

Investigation and prosecution

The effectiveness of law enforcement in tackling illegal logging depends on a complex set of factors; thus, policy-makers need to understand how the law enforcement process works and what organizational infrastructure and capacities are needed to conduct successful investigations and prosecutions. How these work, or do not work, is vital information that can figure in a law enforcement assessment. The manner, skill and effort with which crimes are investigated is a key determinant of the success of the suppression of crime. A study of forest law enforcement in Indonesia, for example, found that “most illegal logging cases brought to trial are dismissed because corruption is prevalent, evidence has been lacking, cases have been poorly put together, insufficient evidence has been collected or the wrong type of evidence has been collected; or because judges prosecutors and the police lack knowledge about important forest laws and regulations” (*A systemic 10 step program to curb illegal logging and improve law enforcement in Indonesia*: http://assets.panda.org/downloads/fleg10steps11_oct_05.pdf).

Including these issues in assessment can help policy-makers ensure that the agencies and personnel responsible for carrying out laws have been adequately trained and equipped with sufficient resources to do so.

The particular details of rules and procedures vary by country, but the same general framework applies in most countries, and can be grouped into four different components:

1. Formal investigation of specific targets.
2. Formal submission of criminal charges by the prosecutor.
3. Presentation of evidence at trial.
4. Adjudication of the charges and imposition of punishment if there is a conviction; resolution of any appellate review.

The prosecutor is the principal representative of the state in all matters related to the adjudication of criminal offences. Most often the prosecutorial function is not specialized around forestry and forest crimes compete with many other potentially more serious and higher priority crimes. Whether as a matter of both law and practice, the prosecutor is politically independent, knowledgeable about forestry, has resources to support bringing high quality cases to court and has access to basic legal and administrative skills are issues which have seldom been systematically inventoried for developing countries, but which are obviously needed if criminal prosecutions are to be successful. Box 1 contains criteria that have been suggested for assessing criminal prosecution systems.

Even where prosecutors give attention to forest crimes, and have basic skills and capacity to bring cases to court, a whole range of issues can influence their effectiveness and success. In most civil law countries, the powers of prosecutors traditionally have been divided and constrained. For example, most civil law jurisdictions require prosecution if the evidence is sufficient, and require that a judge approve a decision to charge an individual with a crime. Most civil law countries deny investigators powers that, for example, the United States permits to strengthen evidence in a case. In the United States, investigators may offer to engage in crime to collect evidence against suspected criminals – for example offering to buy or sell stolen wood or poached wildlife. Some countries permit the use of participant informants, who may themselves be criminals, in the investigation of ongoing criminal activities; the use of electronic surveillance; offers to provide immunity from prosecution in exchange for testimony; and the compelling of testimony at the investigative stage through the use of the grand jury. These are good examples of the kinds of variations within the suppression and prosecutorial area where country assessments can recognize differences and contribute to better policy and, particularly to the identification of possibilities for capacity building. How these components work, are organized, who is involved and what limits effectiveness are issues that need to be assessed and monitored.

Suppression indicators

In many ways the most natural indicators of a forest law enforcement system relate to crime suppression, although, as is clear from the earlier discussion, the most obvious measures can be misleading. Nevertheless, a serious assessment of a country's forest law enforcement status is not complete without data on numbers of arrests, quantities of illegal goods seized, numbers of cases pursued to different levels and their outcomes and penalties (including sentences and fines). Here the country reports from Asia presented in this volume provide a useful first attempt to collect a regional dataset for analytical purposes.

Box 1. Criteria for a criminal prosecution system

Bryett and Osborne (2000) suggested characteristics for which a public prosecution system should strive:

Efficiency: Efficiency is relevant to the fairness and equity of a prosecution system. An inefficient system would leave defendants in the criminal justice system for longer than a more efficient system, and would leave victims' concerns unresolved for a longer period of time.

Effectiveness: Effectiveness is measured by reference to benchmark standards on variables such as promptness of decision, conviction rate, the percentage of cases where advice is against prosecution, remand delays, etc; then the relative fairness and equity of a prosecution system correlate to its relative effectiveness – the greater the system's effectiveness, the greater will be its fairness and equity.

Fairness to each person whose interests are affected by a decision: It is fundamental to the legitimacy of a system of public prosecutions that it deals fairly with each person in each of the constituencies which it serves – victims, defendants, witnesses, investigators, the media and so forth.

Equity among all whose interests are affected by a decision: It is equally important that a system of public prosecutions operates equitably across all the cases with which it deals and gives the proper weight and consideration to the often competing interests which are involved.

Independence: The independence of the prosecutor provides in part an important assurance of the objectivity which he or she can deploy. A prosecutor lacking independence may operate to an ulterior agenda, resulting in partial or biased judgements in a case. Where impartiality is not assured, fairness and equity will suffer.

Preservation and enhancement of public confidence: There is a need not merely for prosecutions to be fair and equitable in fact, but also that they be perceived as such. This is crucial to the preservation and enhancement of public confidence in the criminal justice system which in turn will impact upon people's view of the legitimacy of the state.

Consistency in decision-making: It is a cardinal principle of good public administration that all persons who are in a similar position should be treated similarly. Consistency in decision-making underlines the equitable treatment of all cases.

Accountability: The accountability of a criminal prosecution system directly impacts on its equity and fairness because the mechanisms for accountability provide the avenues for challenge to the work of prosecutors. Accountability enhances equity and fairness in prosecution systems because they enable identification and remedy of decisions which are unfair or inequitable. The likelihood of detecting aberrations correlates with the effectiveness of accountability – the weaker the accountability mechanisms, the less likely bad decisions are detected.

Application of open, transparent and documented procedures: 'Unwritten rules' are a threat to the fair and equitable administration of any public service. 'Unwritten rules militate against certainty, and certainty of the bases upon which decisions are to be made is key to the consistent application of policy. Secret rules both undermine public confidence in their application, and the effectiveness of accountability procedures. Fairness and equity therefore require that rules and guidelines be certain, and that they be known and accessible. Equally, the processes by which decisions are made and the influences which decision-makers absorb, must be transparent.

Recovery

Perhaps the newest area of forest law enforcement to begin to receive attention from policy-makers and law enforcement analysts is the issue of recovery in the aftermath of crime. Arguably, in the past levels of forest crime were low and limited to areas of limited significance or to areas likely to be moved into other land uses. Consequently the question of recovery from forest crime seldom rose to requiring serious attention. With greater recognition of the significance of forest crime, and greater sensitivity to environmental values of forests, greater attention is being given to the rehabilitation of forests, wildlife populations and other resources affected by crime. In addition, it is increasingly recognized that law enforcement operations themselves not infrequently lead to the seizure of stolen material that has value for evidence and may eventually be suitable for sale or other disposition. The development of appropriate methods for dealing with seized material, so as to make appropriate use in judicial proceedings and to ensure that disposal of seized material does not benefit criminals or continue to fuel illegal activity is increasingly recognized as important. Finally, one of the newest developments in international criminal law enforcement cooperation is the use of a variety of legal procedures to effect the recovery of stolen assets placed abroad by criminals and corrupt public officials.

Forest restoration

If an aim of forest law and regulation is sustainable forest management, breaches of the law are likely to involve impacts on the forest that are negative and unsustainable. The severity and significance of damage will depend on the scale and nature of the crime, the characteristics of the ecosystem and a range of other considerations. Arson leading to large and severe fires in moist forests not adapted to fire, for example, might be more significant than timber theft focusing on a few high value species if the overall forest structure is left intact.

An important consideration in policy-making regarding restoration of areas damaged by crime is to ensure against inadvertently creating incentives that encourage further crime. This problem is related to what Pyne (2009) describes as *firefighter arson*: “As soon as people were paid to fight fires, they had a reason to set them. ‘Job-hunting’ was listed as early as 1908 as a significant cause of fires in the U.S. During the early 1930s, the Depression inspired a tidal wave of fires set by destitute men, particularly in the [U.S.] West”.

Whether active efforts to restore crime damaged are either possible or desirable will depend on a number of considerations. These will include the severity of damage, the risk posed by that damage (for example erosion or landslide dangers in the Philippines have often been blamed on illegal logging), the likely pace of natural regeneration and the feasibility of artificial regeneration. Obviously, cost and budgetary consideration will factor into the decision-making. But whether a country’s forest law enforcement efforts specifically address restoration via plantation establishment, supplementary wildlife management efforts or other remedial measures could be important issues to address in a forest law enforcement assessment.

Disposal of seized material

Every government has inventories of stolen wood, wildlife products and other forest products, as well as logging equipment trucks, barges and other equipment that have been seized during

actions against forest crimes. An obvious priority for these items is their use as evidence in cases bringing alleged criminals to justice. In the first instance, this requires governments to have custody systems that protect evidentiary value, that facilitate more detailed investigations and that keep the material secure from theft, vandalism and deterioration. In addition, when and where goods are no longer of value as evidence, disposal methods are needed that ensure that seized materials do not in some way result in motivating future crime. Disposal systems and practices vary from country to country and by resource and in some countries systems and practices are poorly developed and procedures are followed inconsistently. CITES mandates specific requirements and procedures for handling of prohibited products seized in international trade and an assessment could review experience with compliance and knowledge among concerned officials of requirements and obligations. A forest law enforcement assessment should typically take note of the volume and value of different kinds of seizures and analyse the way these materials are managed and ultimately disposed of.

Asset recovery

Going beyond the recovery and disposition of the physical products of forest crime – logs, animals, etc –recovery of the money stolen by criminals and corrupt officials is an increasingly high priority extension of forest law enforcement. In most countries, laws permit confiscation of illegal proceeds, but only on the basis of formal legal proceedings that transfer ownership of the property. This may be only on the basis of a criminal conviction or in some cases as a civil law finding. So-called *non-conviction based confiscation*, means that the court proceedings to confiscate illegal proceeds are conducted separately, and do not require a criminal conviction. Confiscation is a measure that can be sought while the investigation and prosecution are in process. Assets that can be connected with the criminal activity are identified, seized and restrained by court order, to ensure that they are available to be transferred to the state if and when the defendant is convicted. For more information about confiscation and asset recovery and ideas about issues that might be relevant to a forest law enforcement assessment, see Greenberg *et al.* (2009) and World Bank/UNODC (2009b).

Conclusion

As can be seen from the discussion in this introduction, forest law enforcement touches upon a surprisingly wide range of issues and possible measures. Concepts from criminology, law and economics, as well as forestry itself, are relevant and need to be drawn on and understood when analysing forest law enforcement policies and programmes. It is only within the last decade that forest law enforcement and governance has come to be an accepted and recognized concept, and only even more recently has serious attention been given to systematic comparison of experiences in different countries and with different policies, programmes and strategies. The country assessments that follow range in depth and coverage, but together they represent important progress.

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Appendix 1. Thematic elements used in the country paper guidelines – developed by the ASEAN Secretariat, GTZ, the World Bank and FAO in preparation for the regional workshop held in November 2009

Enabling conditions

- National and subnational legislative and regulatory frameworks, including forest law enforcement strategies and implementation programmes.
- Forest policies that address FLEG implementation.
- Institutional framework and intra- and interagency cooperation.
- Institutional capacities (staffing and budgets).
- General development context (rural poverty situation).
- General law enforcement situation (victimization rates, crime incidence).
- Corruption context (e.g. Transparency International ratings).
- Signatory to UN Conventions on Transnational Organized Crime and Corruption (yes/no).

Prevention

- Crime prevention strategies and security risk management.
- Timber theft prevention plans at national, subnational, administrative and local levels.
- Knowledge in security management and crime prevention techniques.
- Community awareness programmes.
- Sustainable forest management situation (supply and demand balances).
- ‘Hardening/strengthening’ of timber sales and taxation systems.

Detection

- Monitoring of forest crime trends, including community reports and surprise inspections.
- Physical and technical surveillance, including aerial surveillance and timber-tracking systems.
- Intelligence sources and informant networks, as well as reward systems for information provided.
- Asset and conflict-of-interest disclosure requirements.
- Efforts to sensitize financial institutions to ‘know your customer’ and ‘politically exposed persons’ requirements relevant to forestry, and to generate appropriate reporting of suspicious transactions related to forest crimes.
- Forestry information disclosure practices.
- Physical and financial audit requirements and independent monitoring arrangements.
- Criminal intelligence programmes.
- Undercover operations and informant networks.

Suppression

- Forest crime information management systems.
- Access to records on criminal forest offences.
- Adequacy and effectiveness of administrative and criminal penalties.
- Clarifying the roles and responsibilities of the military, police and other public security agencies.

Investigation

- Investigation planning and mentoring programmes for forest law enforcement officers.
- Adequacy in legal knowledge of forest law enforcement officers.
- Modus operandi reports.
- Interview and witness statements, including witness protection and plea bargaining with forest offenders in exchange for information and evidence.

Prosecution

- Chain of evidence.
- Quality and completeness of statements.
- Judges' and prosecutors' knowledge of forest and forest-related laws.
- Roles of prosecutors, independence of prosecutors and prosecutorial discretion.

Recovery

- Seizure and recovery of stolen assets, as well as disposal of recovered assets or proceeds.
- Processes for addressing forest-related money laundering.
- Provisions for treatment of crime-affected forests.

Forest governance (non-law enforcement)

- Forest governance framework (participatory approach, transparency, accountability, public disclosure, etc.)
- Equitable treatment and participation of all stakeholders in forest management, including public consultations.
- Ability of forest landowners or right-holders (government, private, community, etc.) to receive a fair return for the use of forest lands.
- Protection of non-formalized customary rights.
- How timber sales and concession allocation are organized, including the pricing of resources and methods of sales.

Monitoring and reporting

- Successful prosecutions and failed prosecutions.
- Asset forfeiture and disposal of assets or proceeds.
- Forest crimes detected and/or reported, including locations and type, police reports, incident reports, etc.
- Production, consumption and trade flows in timber and timber products.
- Extent of forest lands by forest types and functional-use management classes.
- Fiscal revenue from the forest sector.
- Contribution of forestry to formal GDP and employment.

Appendix 2. Twenty-five techniques for situational prevention

Increase the effort	Increase the risks	Reduce the rewards	Reduce provocations	Remove excuses
<p>1. <i>Target harden</i></p> <ul style="list-style-type: none"> ■ Steering column locks and ignition immobilizers ■ Anti-robbery screens ■ Tamper-proof packaging 	<p>6. <i>Extend guardianship</i></p> <ul style="list-style-type: none"> ■ Go out in group at night ■ Leave signs of occupancy ■ Carry cell phone 	<p>11. <i>Conceal targets</i></p> <ul style="list-style-type: none"> ■ Off-street parking ■ Gender-neutral phone directories ■ Unmarked armoured trucks 	<p>16. <i>Reduce frustrations and stress</i></p> <ul style="list-style-type: none"> ■ Efficient lines ■ Polite service ■ Expanded seating ■ Soothing music/muted lights 	<p>21. <i>Set rules</i></p> <ul style="list-style-type: none"> ■ Rental agreements ■ Harassment codes ■ Hotel registration
<p>2. <i>Control access to facilities</i></p> <ul style="list-style-type: none"> ■ Entry phones ■ Electronic card access ■ Baggage screening 	<p>7. <i>Assist natural surveillance</i></p> <ul style="list-style-type: none"> ■ Improved street lighting ■ Defensible space design 	<p>12. <i>Remove targets</i></p> <ul style="list-style-type: none"> ■ Removable car radio ■ Women's shelters ■ Prepaid cards for pay phones 	<p>17. <i>Avoid disputes</i></p> <ul style="list-style-type: none"> ■ Separate seating for rival soccer fans ■ Reduce crowding in bars ■ Fixed cab fares 	<p>22. <i>Post instructions</i></p> <ul style="list-style-type: none"> ■ 'No Parking' ■ 'Private Property' ■ 'Extinguish camp fires'
<p>Support whistleblowers</p>				
<p>3. <i>Screen exits</i></p> <ul style="list-style-type: none"> ■ Ticket needed for exit ■ Export documents ■ Electronic merchandise tags 	<p>8. <i>Reduce anonymity</i></p> <ul style="list-style-type: none"> ■ Taxi driver IDs ■ 'How's my driving?' decals ■ School uniforms 	<p>13. <i>Identify property</i></p> <ul style="list-style-type: none"> ■ Property marking ■ Vehicle licensing and parts marking ■ Cattle branding 	<p>18. <i>Reduce temptation and arousal</i></p> <ul style="list-style-type: none"> ■ Controls on violent pornography ■ Enforce good behaviour on soccer field ■ Prohibit racial slurs 	<p>23. <i>Alert conscience</i></p> <ul style="list-style-type: none"> ■ Roadside speed display boards ■ Signatures for customs declarations ■ 'Shoplifting is stealing'
<p>4. <i>Deflect offenders</i></p> <ul style="list-style-type: none"> ■ Street closures ■ Separate bathrooms for women ■ Disperse pubs 	<p>9. <i>Use place managers</i></p> <ul style="list-style-type: none"> ■ CCTV for double-deck buses ■ Two clerks for convenience stores ■ Reward vigilance 	<p>14. <i>Disrupt markets</i></p> <ul style="list-style-type: none"> ■ Monitor pawn shops ■ Controls on classified ads ■ License street vendors 	<p>19. <i>Neutralize peer pressure</i></p> <ul style="list-style-type: none"> ■ 'Idiots drink and drive' ■ 'It's OK to say No' ■ Disperse troublemakers at school 	<p>24. <i>Assist compliance</i></p> <ul style="list-style-type: none"> ■ Easy library checkout ■ Public lavatories ■ Litter receptacles
<p>5. <i>Control tools/weapons</i></p> <ul style="list-style-type: none"> ■ 'Smart' guns ■ Restrict spray paint sales to juveniles ■ Toughened beer glasses 	<p>10. <i>Strengthen formal surveillance</i></p> <ul style="list-style-type: none"> ■ Red light cameras ■ Burglar alarms ■ Security guards 	<p>15. <i>Deny benefits</i></p> <ul style="list-style-type: none"> ■ Ink merchandise tags ■ Graffiti cleaning ■ Disabling stolen cell phones 	<p>20. <i>Discourage imitation</i></p> <ul style="list-style-type: none"> ■ Rapid repair of vandalism ■ V-chips in TVs ■ Censor details of modus operandi 	<p>25. <i>Control drugs and alcohol</i></p> <ul style="list-style-type: none"> ■ Breathalyzers in bars ■ Server intervention programmes ■ Alcohol-free events

Sources: Clarke and Eck (2003); Cornish and Clarke (2003).

The use of the ASEAN Peer Consultation Framework for FLEG assessment in the Philippines

Thang Hooi Chiew¹

Introduction

The ASEAN Peer Consultation Framework

The ASEAN Peer Consultation Framework (PCF) is patterned after the Peer Review mechanism of the Organisation for Economic Co-operation and Development (OECD). The mechanism involves a systematic examination and assessment of the performance of a Member State in a particular policy area by other Member States, with the ultimate goal of helping the reviewed state improve its policy-making, identify and share good practices and comply with established standards and principles. The examination is conducted on a non-adversarial basis and relies on the shared confidence of Member States in the process.

In order to adapt the Peer Review mechanism to Association of Southeast Asian Nations (ASEAN) dialogues that are more consultative, less evaluative and non-intrusive compared to other methods of coordination, the term ‘peer consultation’ was preferred to ‘peer review’ because the latter may imply peer pressure and intervention. As such, the ASEAN PCF adheres to the ASEAN principles of non-interference and consensus and is based on commitment to share regional standards for sustainable forest management (SFM). It is a cooperative process which relies heavily on mutual trust, respect and shared confidence among the ASEAN Member States. In addition, it is consistent with the ASEAN Vision 2020 and the Roadmap for an ASEAN Community, 2009-2015. A main feature of the process is its efficiency that allows a PCF exercise to be conducted in six months, involving the preparation of a country memorandum, development of a questionnaire, the country visit, preparation of the assessment report, a plenary meeting to consider the draft assessment report by ASEAN Member States and submission of the report to the meeting of the ASEAN Senior Officials on Forestry (ASOF).

Participants in a PCF process have the flexibility to take into account the forest policy objectives of an ASEAN Member State and to look at its performance in a country-specific historical and political context. The peer consultation can therefore assess and encourage trends towards compliance with regional and international forest policy principles. In fact, it provides an opportunity for decision-makers and managers to look at the experience of others through systematic exchange of information, views and positions on forest policy decisions and their application.

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The main objectives of the ASEAN PCF in Forestry are:

1. To monitor ASEAN Member States' forest policies and programmes and assess their effectiveness, inputs, outputs and results (outcomes and impact) against the goals, policies and benchmarks defined for ASEAN forest policy cooperation, such as the ASEAN Criteria and Indicators for Sustainable Management of Tropical Forests, 2007, as well as nationally established objectives.
2. To assist in improving individual and collective SFM performance.
3. To provide comparative reporting and credible analysis for a wider audience in ASEAN Member States and to reduce the proliferation of reporting requirements to international organizations and conventions.
4. To showcase good practices, share experiences and foster cooperation in the ASEAN region.

In this regard, the first Pilot ASEAN PCF in Forestry was conducted in Brunei Darussalam where a country visit was carried out from 19 to 24 March 2007 to assess forest policy implementation, support mutual learning and foster cooperation in ASEAN. This was followed by a second ASEAN PCF exercise that was carried out in the Philippines where the country visit was conducted from 7 to 11 July 2008. This PCF exercise looked at the impact of the country's forestry initiatives towards SFM and its compliance to regional and international commitments, among others, under the Philippine Master Plan for Forestry Development. At the request of the Philippines, the exercise also included a thematic focus on forest law enforcement and governance (FLEG) so as to better link the country's PCF with the thematic areas of the East-Asia FLEG initiative and the implementation of the Work Plan for Strengthening Forest Law Enforcement and Governance (FLEG) in ASEAN, 2008-2015, particularly on country experiences.

The forest sector in the Philippines

The Philippines is made up of approximately 29.82 million hectares of land and 0.18 million hectares of inland waterbodies, totaling 30 million hectares. Administratively, the country is divided into regions, provinces, municipalities, communities and *barangays* (villages). The country is one of the 18 mega-biodiverse countries of the world and it is conserving and protecting its flora and fauna diversity through the 1997 National Biodiversity Strategies and Action Plan (NBSAP) and The Philippine Biodiversity Conservation Priorities, where the latter will include a protected area in every centre of biodiversity in the country.

Nevertheless, the country's previously lush tropical forests faced continuous deforestation and degradation throughout the whole of the last century. Forest cover decreased from 17.8 million hectares (57.3 percent of the total land area) in 1934 to a reported 5.4 million hectares in 2000 (18.0 percent of the total land area), of which only about 0.83 million hectares are old growth forests or virgin forests. The country went from being responsible for 30 percent of the world's tropical timber export in 1965 to being a net importer of wood materials at present. According to the *FAO global forest resources assessment 2005*, the country has 7.16 million hectares (23.9 percent) of forest, 3.61 million hectares (12.0 percent) of other wooded land, 19.04 million hectares (63.5 percent) of other land and 0.18 million hectares (0.6 percent) of inland waterbodies.

The Philippines has a forest law through the Presidential Decree PD 705 of 1975 – the Forestry Reform Code of the Philippines, and currently, it has the 1990 Master Plan for Forest Development (revised 2003) that serves as a national framework for forest sector development. The country is also pursuing a six-principle SFM approach based on seven criteria and 57 indicators. However, illegal logging and poaching, slash-and-burn farming, undefined boundaries of forest lands and limited livelihood options in the upland regions of the country still persist and continue to undermine SFM. In this regard, a Sustainable Forest Management Bill has been proposed by the Department of Environment and Natural Resources (DENR), but the Bill is still pending enactment by the Philippine Congress.

To halt the loss or degradation of forest areas, the Philippines has shifted from a highly centralized to a more participatory mode of governance, and from a timber production-oriented to a more protection-focused management approach through the implementation of the Master Plan for Forest Development in 1990 (revised in 2003) and the promulgation of the National Protected Area System (NIPAS) Act in 1992.

Conduct of the ASEAN PCF in Philippine forestry

Process initiation

The Philippines as one of the two assessing ASEAN Member States that had participated in the Brunei Darussalam ASEAN PCF exercise in March 2007 was convinced that an ASEAN PCF exercise in the Philippines would provide further insights and inputs to improve, among others, its forest management systems and strengthen forest law compliance and forest governance.

In this regard, a letter was sent to the ASEAN Secretariat signifying its intention to be assessed under the ASEAN PCF. After getting a positive reply, the ASEAN Secretariat facilitated an initial meeting in the Philippines where the preferred thematic areas that the PCF in the Philippines would focus on and be assessed were decided. This was to ensure that the results and findings from the PCF exercise would be useful to further enhance the sustainable management, conservation and development of forest resources in the Philippines and the ASEAN region, including a more transparent, accountable and inclusive forest sector.

A PCF Country Memorandum was then prepared by the Forest Management Bureau (FMB) of the DENR which formed the basis for the formulation of the guiding questions in the Draft Questionnaire that was used by the PCF Assessment Team in conducting the exercise in the Philippines, and as a reference document for members of the team. The Memorandum basically outlined the changes of forest cover in the Philippines since the 1930s, including forest plantation development; state of forest management and conservation of biological diversity; environmental services provided by forests; policy and institutional framework; and state of research and education, including extension services in the forest sector of the Philippines. It was further supported by the country's forestry statistics; the Revised Master Plan for Forestry Development (MPFD), 2003; National Forest and Tree Resources Assessment, 2003-2005; draft Chapter 3: Green Philippines of the Medium-Term Philippine Development Plan (MTPDP); and related information regarding forestry initiatives and programmes.

Questionnaire development

A special Preparatory Meeting on Peer Consultation Framework Initiative: Developing Questionnaire for ASEAN PCF in Forestry of Philippines was held on 5 June 2008 in Jakarta, Indonesia, by members of the Assessment Team with technical support from the ASEAN Secretariat and the ASEAN-German Regional Forest Programme (ReFOP), as well as an expert on assessing national FLEG issues provided by the World Bank. In this regard, Mr Michael C. Dyson of Dyson Corporate Security, Australia, delivered a presentation covering forest crime prevention, including environmental design, detection, suppression, prosecution, integrated security management and intelligence-led policing.

A draft questionnaire was then prepared by the assessing ASEAN Member States with the assistance of the ASEAN Secretariat and ReFOP, based on the generic Guidelines for the ASEAN Peer Consultation Framework (PCF) (Draft) that were developed during an ASEAN-OECD Executive Seminar which was held at the OECD Office in Paris in December 2006, as well as the questionnaire used in the ASEAN Peer Consultation Framework (PCF) Exercise in Forestry of Brunei Darussalam in March 2007. This draft questionnaire had also included a set of questions addressing the issues of FLEG as requested by the Philippines, based on the outcomes of the Preparatory Meeting on Peer Consultation Framework Initiative: Developing Questionnaire for ASEAN PCF in Forestry of Philippines that was held in Jakarta, Indonesia on 5 June 2008.

In brief, the Draft Questionnaire had nine questions under the section Policy and Legislation; five questions under the section Forest Resources; eight questions under the section Institutional Aspects; eight questions under the section Social and Economic Aspects; three questions under the section Environmental Aspects; eight questions under the section Regional and International Commitments; and four questions under the section Good Practices and Lessons Learned.

Of the 45 questions, a total of nine or 20 percent of the questions addressed issues on FLEG covering, among others, current policy procedures and methods, as well as specific laws enacted to address and detect illegal forest activities; special budget allocated for undertaking forest law enforcement; number of successful prosecutions, assets forfeited, etc; number of agencies involved in undertaking activities in suppressing illegal forest activities in the Philippines; and the effectiveness of the Multi-sectoral Forest Protection Committee (MFPC) in the Philippines, including the implementation of the Chainsaw Act, 2002, together with the regulations issued in 2004. The Draft Questionnaire is contained in Appendix 1.

An analysis on the relationships of the questions in the Draft Questionnaire with the Monitoring, Assessment and Reporting Format for Sustainable Forest Management in ASEAN (MAR Format) which was developed to implement the ASEAN Criteria and Indicators for Sustainable Management of Tropical Forests was also carried out. In this context, it was estimated that 33.3 percent of the total questions in the Draft Questionnaire were related to a number of indicators in the MAR Format. This percentage increases to 45.5 percent if one were to exclude those questions dealing with regional and international commitments, as well as good practices and lessons learned in the Draft Questionnaire. The analysis is found in Appendix 2.

Assessment

The Assessment Team comprised four government officials, two each from Indonesia and Malaysia. The team's chairperson, Dr Azmi Mat Akhir, Senior Research Fellow, Asia-Europe Institute, University of Malaya, Malaysia, was formerly the Special Advisor to the Secretary-General of ASEAN. He had also led the ASEAN PCF in Brunei Darussalam in March 2007 and is very experienced in ASEAN affairs. The overall PCF exercise was implemented through the coordination of the Agricultural Industries and Natural Resources (AINR) Division, the former Natural Resources Unit (NRU) of the ASEAN Secretariat, with technical assistance from ReFOP, including three resource persons engaged by ReFOP.

A five-day country visit to enable an independent and in-depth assessment by members of the Assessment Team was undertaken in July 2008. The multistakeholder meeting held on the first day of the visit at the DENR was officially opened by Mr Manuel D. Gerochi, Undersecretary for Staff Bureaus of the DENR; thus reflecting a political interest in the process. The contributions by officials of the FMB, led by the Director and ASOF Leader, Mr Romeo T. Acosta, had been highly instrumental in the success of the PCF exercise in the Philippines. Visits were also made to the FMB Region 4 Headquarters in Pasay City, Metro Manila; Region 4A of the Philippines (CALABARZON – Cavite-Laguna-Batangas-Rizal-Quezon Provinces); the Ecosystems Research and Development Bureau (ERDB) of the DENR; College of Forestry and Natural Resources of the University of the Philippines (UPLB-CFNR); and Forest Products Research and Development Institute (FPRDI) of the Department of Science and Technology (DOST) in Los Baños; as well as the Quezon Provincial MFPC; Metro RelNa MFPC; and the Quezon Provincial Administrator and Provincial Attorney in Lucena City. All the stakeholders met expressed their strong support for the PCF process.

The consultations and discussions during the meetings with stakeholders in Manila and on-site visits in Laguna and Quezon provinces provided comprehensive opportunities for members of the Assessment Team to gather targeted information on their roles in and views on the national forest policy and programmes and their implementation, as well as their impacts on sustainable management of the forest resources and socio-economic development of the country.

A wrap-up session was held at the end of the country visit to further discuss with the senior officials of the FMB-DENR and representatives of other stakeholders and to share impressions on first conclusions of the mission, as well as to collect additional information and supporting data relevant for the drafting of the assessment report.

Findings of the ASEAN PCF in Philippine forestry

The focus of the findings of the PCF exercise in the Philippines was on the policy and institutional framework with emphasis on:

- Trends in forest policies and legislation development, the roles and responsibilities of the FMB, the devolution of certain forestry functions to local units and forestry research, education and extension in the forestry sector.
- Land and forest resources, especially trends in forest and forested lands.

- SFM involving People-oriented Forest Programmes (POFPs), Community-based Forest Management (CBFM) and the use of criteria and indicators for monitoring, assessment and reporting progress in achieving sustainable management of the forest resources in the Philippines.
- Conservation of biological diversity and forest protection, including the MFPC.
- Environmental services provided by the forests in the Philippines, such as recreation and water.
- The national legal regime and forest law enforcement landscape.
- Good practices and lessons learned for mutual learning among ASEAN Member States.

In addition, the findings of FLEG implementation in the Philippines had also focused on policy and legislation involving policy procedures and methods for detecting illegal forest activities and legal provisions on property rights; institutional aspects in terms of budget allocated for undertaking forest law enforcement; social and economic aspects covering prevention and suppression measures used to arrest illegal forest activities and the number of successful prosecutions, including assets forfeited; and on good practices and lessons learned, especially the effectiveness of the MFPC in combating illegal forest activities, and the use of the Chainsaw Act, 2002, together with its operational rules and regulations.

The most pertinent findings of the PCF exercise in the Philippines, among others, were the decline of forest resources in the Philippines during the late 1950s to 1970s, which was attributed to large logging concessionaires; the inevitable occupation of logged-over areas by the landless who converted these areas into slash-and-burn farmlands; illegal cutting for fuelwood production and other uses of wood by forest-dependent communities and those living within the vicinity of forested areas; and uncontrolled conversion of forest lands to permanent non-forest uses. Other factors included weak policies and programmes, undefined limits of forest lands, lack of private investments, conflict in the Philippine Forest Administration, weak intersectoral participation and weak foundation in forest science.

As such, policy change had been instituted and manifested through log and lumber export bans, including a ban on harvesting the old growth forests; delineation of boundaries between forest lands and national parks; increased forest charges; massive reforestation and afforestation programmes; creation of a sound national protected area system to promote biodiversity conservation; and implementation of ecosystem and watershed approaches in forest management.

The changing policy was also evidenced by the devolution of some forest management and protection functions of the DENR to local government units (LGUs); participation of civil society groups, particularly non-governmental organizations (NGOs) and people's organizations, including POFPs; recognition of the vested rights of indigenous peoples over their ancestral lands; and adoption of CBFM as the national strategy for SFM and social justice. These approaches had greatly reduced the forest depletion rate and increased forest cover; a study using satellite imagery, conducted in 2002 to 2003, gave an estimated forest cover of 7.17 million hectares out of the 15.89 million hectares of forest land in 2003 to 2005.

Currently, efforts in SFM and utilization are effected through POFPs centred on the production-sharing CBFM approach. These efforts are supported by forest utilization

research, forestry education and forestry extension and communication. The adoption of the Watershed and Ecosystem Management approach as the overarching principle in forest management that promotes holistic, multiple-use and sustainable management of resources within watersheds will also further enhance the realization of SFM in the Philippines.

In addition, despite all the changes regarding the focus of forest law enforcement, the major constraints to effective enforcement of laws, presidential decrees and executive orders on timber harvesting and illegal logging and poaching remain the same as before due to the continuing inadequacy of the government to enforce laws effectively, as well as inadequacy of the legal instruments themselves. A conducive national legal regime must be established for effective enforcement of forest laws and good governance through advocating its three basic pillars: accountability, transparency and people's participation.

Nevertheless, the control of illegal logging activities as a forest protection measure is being conducted through the MFPC mechanism with the participation of various stakeholders at the provincial level, although many areas are still facing problems and constraints, especially the lack of financial resources.

More specifically, forest law enforcement and the overall forest policy has shifted from focusing on ensuring that large logging concessionaires comply with the existing rules and regulations governing logging operations and shipment of logs and other timber products to giving more equitable access to forest resources to local communities and individuals and giving more weight to the protection of ecological functions of the forests. This is in response to the increasing deterioration of the forest ecosystems as a result of pressures from the growing population of communities depending largely on the forest for their subsistence, as well as the lack of substantial accomplishments in forest protection and law enforcement efforts by the government.

At the field level, forest law enforcement and forest protection are the responsibility of the forest guards and forest protection officers of the Community Environment and Natural Resources Offices (CENROs). They are organized into monitoring teams for forest crime detection and apprehension of perpetrators of illegal logging activities, including those in possession of illegally sourced forest products, and in validating Certificates of Timber Origin (CTOs) and all other necessary documents proving the legality of forest products in shipment. All apprehensions are reported to the Office of the Regional Executive Director (RED) where the case may be settled administratively or taken to the courts for litigation and final judgement. In this regard, the Forest Utilisation and Law Enforcement Division of the Office of the RED provides the necessary support to the monitoring teams and coordinates law enforcement efforts in the region.

Due to extremely limited human and financial resources at its disposal compared to the magnitude and the diversity of work that needs to be done, the DENR as the forest law enforcement agency in the Philippines has initiated other measures to strengthen and fill in the gaps in forest law enforcement through:

- (i) Deputation of environment and natural resource officers for greater involvement of the citizenry.

- (ii) Coordination with other agencies particularly the LGUs, Philippine National Police (PNP), Armed Forces of the Philippines (AFP) and the media.
- (iii) Support for the training of judges, prosecutors and law professors on forest law and regulations.
- (iv) Designation of special courts and prosecutors for illegal logging to accelerate the prosecution of court cases.
- (v) Support for parallel initiatives of environmental law groups to provide legal assistance to forest law enforcers (forest guards and deputized forest officers) who experienced harassment and legal suits from the apprehended illegal operators.
- (vi) Establishment of the *Sagip Kalikasan* (Save Nature) Task Force to investigate and arrest forest law violators, monitor and assist in their prosecution and final conviction, establish a database of its operations, including monitoring of all prosecution cases recommended to the DENR Secretary and coordinate law enforcement activities of the DENR with activities of other government agencies.

To further enhance FLEG efforts in the Philippines, it is imperative to crystallize a set of policy measures and identify appropriate means for implementing these measures, as well as the early passage of the Sustainable Forest Management Bill by the Philippine Congress. The Bill would provide concrete strategies to address the attainment of SFM and forest resource management in response to continuous demand for forest products and services through the integration of relevant forestry legislation and related bills, while ensuring an enabling environment that takes into consideration the social, economic and environmental dimensions of development.

In addition, further action should be taken by the DENR to strengthen forest law enforcement through:

- (i) Integrating forest law enforcement with the broader concern for poverty alleviation and social equity through the integration of forest law enforcement with the overall effort of the CBFM that balances regulatory aspects with the provision of development opportunities to address the livelihoods of forest-dependent communities.
- (ii) Developing effective mechanisms for active and sustained involvement of different sectors to facilitate the evolution of such a mechanism, an important component of which is the provision of adequate support and incentives to ensure the continuing long-term operation of the multisectoral group.
- (iii) Continuous capacity development of individuals and sectors involved in forest law enforcement; and in addition to the DENR forest rangers and forest prosecution officers, there is also a need to provide continuous training to judges and prosecutors on forestry law related to the performance of their functions. This should be complemented with logistical and legal support, such as communication equipment and transportation facilities.

- (iv) Improving the integrity and credibility of forest law enforcers within the DENR to ensure that the DENR's forest law enforcement officers have the appropriate knowledge, skills and values to do their job in an honest, effective and efficient manner through training on value reorientation, networking and institutional collaboration, provision of adequate logistical support and incentives and strict punishment imposed on those convicted of involvement in illegal activities.
- (v) Allowing independent monitoring of in-house monitoring systems to monitor violations of forest laws and regulations and the performance of law enforcement officers by international NGOs or credible MFPC-type monitors. This may be necessary in order to make the monitoring of compliance with existing laws and regulations fair.
- (vi) Sourcing adequate and sustainable financial resources through the development of a mechanism where a certain percentage of forest charges from timber harvesting may be set aside for rehabilitation and forest law enforcement activities and/or from external sources to augment the limited budget from the DENR.
- (vii) Improving efficiency in the forest law enforcement programme so as to unify law enforcement across the DENR units which can lead to greater results even without additional funds; and pursue collaborative initiatives with other agencies of the government such as the Bureau of Customs, Philippine Coast Guard and Philippine Ports Authority to provide additional hands in the DENR's enforcement activities.
- (viii) Development of alternative sources of timber through greater establishment of tree plantations as alternative sources of timber to reduce the heavy pressure placed on natural forests; and encourage more investments to flow into plantation development which would also create viable sources of livelihood for forest-dependent communities.

Conclusions

The ASEAN PCF in Forestry can be used to assess the effectiveness of forest policy implementation and progress made towards the achievement of SFM, as well as to share information on specific themes or aspects of forestry as requested by the assessed country. For example, the PCF conducted in the Philippines, where at the request of the country a thematic focus on FLEG implementation was also included in the exercise.

In this context, future PCF exercises in ASEAN Member States could also address issues on reducing emissions from deforestation and forest degradation (REDD) that are currently being elaborated under the United Nations Framework Convention on Climate Change (UNFCCC), the Ecosystem Approach under the Convention on Biological Diversity (CBD) and the four Global Objectives on Forests of the United Nations Forum on Forest's Non-legally Binding Instrument on All Types of Forests (NLBI).

The ASEAN PCF is an important tool for facilitating and supporting regional cooperation and mutual learning among ASEAN Member States and across the ASEAN region in

improving forest policy implementation and identifying good practices in SFM; these include domestic reforms, as well as the actions taken by ASEAN Member States in meeting their obligations under the various regional and international instruments. For example, the Roadmap for an ASEAN Community, 2009-2015; the ASEAN Multi-Sectoral Framework on Climate Change: Agriculture and Forestry Towards Food Security (AFCC); the UNFCCC and its Kyoto Protocol; the CBD and its Cartagena Protocol on Biosafety; the United Nations Convention to Combat Desertification (UNCCD); and the International Tropical Timber Agreement (ITTA), 1994.

In the Philippines, community-based forest management and similar approaches are currently more prominent than corporate logging and forest management. Private investments are also growing in forest plantation development, albeit slowly, while people's organizations and LGUs are providing more protection to forest and forest resources. Furthermore, there is also a growing awareness among the coastal communities on the importance of mangroves for fisheries which has helped to conserve the resource.

However, there are still several factors that continue to undermine SFM in the Philippines. Despite all the positive changes on forest law enforcement, the major constraints to effective enforcement remain the same as when the Timber License Agreement (TLA) was the dominant instrument issued to authorize timber harvesting. These include inadequacy of the government to enforce laws effectively and the lack of programmes to create a socio-economic environment that is conducive for SFM. Illegal logging, poaching, slash-and-burn subsistence agriculture and limited livelihood options in the uplands still exist. Unmarked boundaries of forest lands, coupled with unstable forest policies make it difficult to undertake effective planning of SFM. Successfully addressing these factors would greatly enhance the attainment of SFM in the Philippines.

A common view to overcome obstacles to effective FLEG in the Philippines, as expressed by most of the stakeholders during the PCF exercise, would be to focus on a two-pronged approach that enhances the existing capability of the government for law enforcement and, at the same time, facilitates the improvement of the economic conditions of the communities dependent on the forests through alternative livelihood development.

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Appendix 1: ASEAN PCF Exercise in Forestry of the Philippines

Draft Questionnaire

Set A: Policy and Legislation

1. What are the national policy, legal framework and development strategies for the management and conservation of forest resources in the Philippines?
2. What are the specific timeframes, responsibilities, indicators and milestones for the achievement of the Philippines' strategic forest policy goals?
3. What results have been achieved to date regarding implementation of the policy framework? How are the country's forest policy goals captured by legislation? What are the challenges in the future and how does the country intend to address them?
4. What is the focus of the Philippines' overall development strategy (e.g. macroeconomic stability emphasizing inflation rate rather than environmental stability) as compared to its national forest policy (e.g. conservation, commercial timber management, social forestry, a blend of the above)? How are the country's forest policy and development strategies balanced?
5. *Are current policy procedures and methods effective in detecting illegal forest activities (e.g. forest monitoring, informant network, community awareness programmes, reward system for information)?²*
6. *Are there any specific laws enacted to address illegal activities in the forest sector in the Philippines (e.g. forfeiture of assets, awarding of rewards for informants, protection of whistle-blowers, etc.)?*
7. *Do current laws have clear rules and provisions on legal property rights, do not have excessively weak disincentives for illegal forest activities and conflicts with other bodies of legislation in the other sectors (e.g. agriculture, mining or infrastructural development)? Are there new legislations proposed for enhancing forest law enforcement in the Philippines?*
8. Has information on the national forest policy and forest laws been effectively disseminated to the public in a timely manner?
9. How does the Philippines conduct national forest policy and legal framework review?

² Question in italics are those that address forest law enforcement and governance (FLEG).

Set B: Forest Resources

1. What is the nature/character/condition of the Philippines' forest resources (e.g. primary/secondary/planted forests, area integrity, fragmentation, degraded)?
2. What are forest resource trends (i.e. forested areas, timber production and trade, land tenure, forest fire and haze, conversion, totally protected areas)?
3. How does the Philippines conduct national forest cover assessments and what is the frequency for conducting them?
4. What are the natural and anthropogenic threats to the Philippines forest resources?
5. Are there plans to embark on large-scale forest plantation programmes to meet the increasing demand for timber and timber products in the Philippines?

Set C: Institutional Aspects

1. Who are the main drivers influencing the Philippines' forestry sector and what are their interests and interventions?
2. Is there a national forest consultative/advisory body? What is its mandate and who are its members?
3. How are cross-sectoral issues being managed (e.g. agriculture, ecotourism, energy, economics, poverty reduction, spatial planning, trade, etc.)?
4. What are the mechanisms used for public participation in the preparation and implementation of the national forest policy? How are respective mechanisms such as stakeholder consultations institutionalized to help achieve consensus on cross-cutting issues (e.g. national forest programmes, poverty reduction strategies, etc.)?
5. What is the administrative structure and how are the management functions (i.e. planning, implementation, monitoring, evaluation and feedback) organized for administering the Philippines' forest resources? What are the respective roles of national versus provincial or state authorities? Please identify involvement of other government agencies, and other forestry stakeholders in the conduct of forest monitoring, evaluation and/or assessment.
6. How are fiscal allocations to the forestry sector organized? Is the forest administration involved in national budgeting, if yes how?
7. Is there sufficient managerial, professional and technical staff with appropriate skills, knowledge and abilities to meet the above (institutional) requirements? Is there a capacity development plan to help overcome constraints in this area?
8. *Is there a special budget allocated for undertaking forest law enforcement in the Philippines?*

Set D: Social and Economic Aspects

1. What are the emerging issues or constraints in achieving sustainable forest management (SFM) in the Philippines?
2. What is the level of public awareness on forestry issues? Is the public's understanding supportive to SFM? Is there an outreach programme to the younger generation to raise awareness of SFM issues?
3. How does the national economic and social development strategy support SFM, and balancing social and economic development of the country?
4. What is the share and trend of the forestry sector in Gross Domestic Product (GDP)? Is part of the forest sector-generated revenue re-invested in SFM? How is benefit sharing from forest incomes managed? How can forestry contribute to poverty alleviation?
5. What are the potentials and strategies for sustaining and possibly increasing the economic contribution of the forest sector to the national economy (e.g. ecotourism, environmental services, carbon trade)? What are the strategies based upon (e.g. market mechanisms, incentives, etc.)?
6. *Are illegal forest activities prevalent in the Philippines? Please provide details on the number of persons charged, number of successful prosecutions, assets forfeited, etc.*
7. *What prevention measures are implemented and are there any new proposed control measures to arrest illegal forest activities in the Philippines (e.g. crime trends mapped, log tracking system, community policing programmes, vehicle barriers, land allocation programmes, crime prevention through Environmental Design techniques, boundary demarcation, etc.)?*
8. *Please also provide details on methods employed and the number of agencies involved in undertaking activities in suppressing illegal forest activities (e.g. informants' network, interagency cooperation, criminal intelligence programme, mentoring programmes for law enforcement officials, modus operandi reports, etc.).*

Set E: Environmental Aspects

1. What are the specific strategic plans to promote environmental functions (e.g. biodiversity, climate change, watershed management) of SFM and how are they being implemented?
2. Are there Environmental Impact Assessment (EIA) procedures and, if yes, how are they applied?
3. Are there procedures for protecting soil productivity and water retention capacity within production forests and downstream catchment values? How effective are these procedures and are there any new procedures/measures proposed for their improvement?

Set F: Regional and International Commitments

1. Are there transboundary issues which inhibit or enhance achieving Philippine forestry sector goals (e.g. illegal logging and illegal timber trade, etc.)? How are these issues being addressed with neighbouring countries in the region?
2. What role do external actors (e.g. donors, foreign investors, international organizations) play in forest management? Should this role change and if so why and how?
3. How are the forestry-related goals and policies of the ASEAN Vientiane Action Programme (VAP) 2005-2010 reflected in the Philippines' national policies and strategies? How does the country contribute to regional cooperation in terms of SFM within the ASEAN framework? How has the Philippines organized to comply with the ASEAN Criteria and Indicators for Sustainable Management of Tropical Forests and in reporting its implementation through the use of the Monitoring, Assessment and Reporting Format for Sustainable Forest Management in ASEAN?
4. How are the forest and forest-related goals and relevant provisions of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, the United Nations Convention to Combat Desertification (UNCCD), the Convention on Biological Diversity (CBD) and its Cartagena Protocol on Biosafety, the International Tropical Timber Agreement (ITTA) 1994 and the four Global Objectives on Forests of the Non-legally Binding Instrument on All Types of Forests reflected in the country's forest policy and programmes? What is the status of their implementation?
5. How is implementation of the IPF/IFF Proposals for Action linked with the national policy and programmes?
6. What actions have been taken by the Philippines in the context of implementing the decisions and work plans of the East Asia Forest Law Enforcement and Governance (EA-FLEG), and the Asia Forest Partnership (AFP)?
7. Are there any bilateral or multilateral projects operating in the Philippines that support the forestry administration and sector development?
8. Are there other international/regional forestry-related initiatives and agreements?

Set G: Good Practices and Lessons Learned

1. What achievements in forest management are noteworthy and could be shared as examples of innovation and good practice?
2. *What is the status of implementation of the Multi-sectoral Forest Protection Committees (MFPC) in the Philippines? Are they effective in combating illegal forest activities?*
3. *Have the Chainsaw Act, 2002 and its operational rules and regulations issued in 2004 been effective in curbing illegal logging in the Philippines?*
4. Have there been recent national evaluations or independent assessments of national forestry development/management? Please provide summary findings of the evaluation/assessment.

Appendix 2: An analysis on the relationships of the Draft Questionnaire with the Monitoring, Assessment and Reporting Format for Sustainable Forest Management in ASEAN

Set A: Policy and Legislation

1. The questions on national policy and legal framework for the management and conservation of forest resources, as well as the implementation of the policy and legal framework and whether there are any specific laws enacted to address illegal activities in the forest sector are being addressed in Indicator 7.1 – Existence and implementation of a framework of policies, laws and regulations to govern, among others, national objectives for forest production, conservation, protection and investment, including the control of illegal activities in forest areas, of the Monitoring, Assessment and Reporting Format for Sustainable Forest Management in ASEAN (MAR Format).
2. The question on whether there are current laws having clear rules and provisions on legal property rights is being addressed in Indicator 7.2 – Extent (area) of forest tenure and ownership according to the public sector (state/federal, municipalities, local communities, etc.), private sector (firms, associations, individuals, families, etc.) and indigenous communities, of the MAR Format.
3. The question on whether the information on the national forest policy and forest laws have been effectively disseminated to the public in a timely manner is being addressed in Indicator 7.11 – Timeliness of information to increase public awareness about forest policies, legislation and sustainable forest management practices, of the MAR Format.
4. The other question under *Set A: Policy and Legislation* that enquires whether current policy procedures and methods have been effective in detecting illegal forest activities is being addressed in Indicator 3.1 – Extent and nature of forest encroachment, degradation and disturbance caused by humans and the control procedures applied in the Permanent Forest Estate (PFE) and non-PFE, including illegal exploitation, of the MAR Format.

Set B: Forest Resources

1. The question on what is the nature/character/condition of the Philippines' forest resources is being addressed in Indicator I.3 – Extent (area) and percentage of total land area under each forest type for the PFE and non-PFE; and Indicator 1.6 – Forest condition of the PFE and non-PFE for area of primary forest (managed, unmanaged, and degraded), secondary forest, and degraded forest lands, of the MAR Format.
2. The question on what are the forest resource trends in the Philippines is being addressed in Indicator 1.5 – Changes in forested area in the PFE and non-PFE as a result of, among others, area formally converted to agriculture, settlements and infrastructural development, area formally added, and area converted illegally, of the MAR Format.

3. The other question under this set of questions on *Forest Resources* dealing with what are the natural and anthropogenic threats to the Philippines' forest resources is being addressed in Indicator 3.1 – Extent and nature of forest encroachment, degradation and disturbance caused by humans and the control procedures applied in the PFE and non-PFE; and Indicator 3.2 – Extent and nature of forest degradation and disturbance due to natural causes and the control procedures applied, also in the PFE and non-PFE, of the MAR Format.

Set C: Institutional Aspects

1. The question on how are fiscal allocations to the forestry sector being organized in the Philippines is being addressed in Indicator 7.3 – Amount of funding in forest management, administration, research and human resource development from government sources (national government and sub-national government), international development partners (grant and loan), and private sources (domestic and foreign), of the MAR Format.
2. The questions on whether there is sufficient managerial, professional and technical staff with appropriate skills, knowledge and abilities in the forestry sector in the Philippines and whether there is a capacity development plan to help overcome constraints in this area are being addressed in Indicator 6.7 – Training, capacity-building and manpower development programmes for forest workers in the short- and medium-term; and Indicator 7.5 – Structure, responsibility and staffing of institutions responsible for sustainable forest management, including the nature of responsibilities and number of staff available, of the MAR Format.
3. The question on what is the administrative structure and how the management functions (i.e. planning, implementation, monitoring, evaluation and feedback) are organized for administering the Philippines' forest resources is being addressed in Indicator 7.9 – Capacity and mechanisms for planning sustainable forest management and for periodic monitoring, evaluation and feedback on progress, of the MAR Format.
4. The other question in *Set C: Institutional Aspects* on what are the mechanisms used for public participation in the preparation and implementation of the national forest policy and how stakeholder consultations are institutionalized in the Philippines is being addressed in Indicator 7.10 – Mechanism for public participation in forest management planning, decision-making, data collection, monitoring and assessment, including the processes and parties involved in undertaking public participation, of the MAR Format.

Set D: Social and Economic Aspects

1. The question on what prevention measures are being implemented in the Philippines to arrest illegal forest activities, such as boundary demarcation and log tracking system, is being addressed in Indicator 1.4 – Percentage of the PFE with boundaries physically demarcated in the production and protection forests; and Indicator 4.7 – Existence and implementation, including parties involved, of a log-tracking system or similar control mechanisms, of the MAR Format.

2. The question on what is the share and trend of the forestry sector in Gross Domestic Product (GDP) is being addressed in Indicator 6.1 – Value and percentage contribution of the forestry sector to Gross National Product (GNP) and Gross Domestic Product (GDP), of the MAR Format.
3. The other question in this set of questions on *Social and Economic Aspects* that requested information on the level of public awareness of forestry issues and whether the public's understanding is supportive of SFM is being addressed in Indicator 7.7 – Existence of communication strategies and feedback mechanisms to increase awareness on sustainable forest management, including their effectiveness, of the MAR Format.

Set E: Environmental Aspects

1. The question on what are the specific strategic plans to promote environmental functions (e.g. biodiversity, climate change, watershed management) of SFM and how they are being implemented is being addressed in Indicator 5.1 – Extent (area) and percentage of total forest area (PFE and non-PFE) managed exclusively for the protection of soil and water; and Indicator 5.4 – Procedures for forest engineering, including forest road lay-out and construction, drainage requirements, conservation of buffer strips along streams and rivers, protection of soils from compaction by harvesting machinery, and protection of soil from erosion during harvesting operations, of the MAR Format.
2. The other question under *Set E: Environmental Aspects* on whether there are procedures for protecting soil productivity and water retention capacity within production forests and downstream catchment values, and whether these procedures are effective is being addressed in Indicator 5.2 – Procedures to ensure the protection of downstream catchment values, including their implementation and effectiveness; and Indicator 5.3 – Procedures to protect soil productivity and water retention capacity within production forests, also including their implementation and effectiveness, of the MAR Format.

Concluding remarks

1. For those questions in the questionnaire that are oriented towards policy, legislative and institutional frameworks that address forest conservation, management and development, as well as those questions pertaining to the state of the forests and the contribution of the forest sector to the economy of the Philippines, there is sufficient one-to-one correspondence with the Indicators in the MAR Format.
2. However, there is no one-to-one correspondence between the questions asked under *Set F: Regional and International Commitments* and *Set G: Good Practices and Lessons Learned* and the Indicators of the MAR Format as these questions in the questionnaire do not specifically address actions required for the attainment of SFM at both the national and forest management unit levels.
3. Nevertheless, it is estimated that 33.3 percent of the total questions in the questionnaire are related to a number of Indicators in the MAR Format. This percentage increases to 45.5 percent if one were to exclude those questions dealing with *Regional and International Commitments*, and *Good Practices and Lessons Learned* under Sets F and G of the questionnaire respectively.

Forest law enforcement and governance in Brunei Darussalam

Haji H.M.F. Nordin¹ and Z. Berudin²

Summary

Good governance and effective leadership are the main factors that contribute to the excellent condition of Brunei's forests. The pro-active response of the government to forestry issues and concerns has paved the way for maintaining pristine forest resources.

The strong leadership in forestry is complemented by an effective legal and policy framework. The Forest Act, Chapter 46, Laws of Brunei, has explicitly provided a clear guideline for managing national forest resources. The same law underwent review and amendment in 2007 to respond effectively to new developments in the forestry sector.

Although forest-related crime is not considered a serious threat in the country, the Forestry Department remains keen in providing an aggressive forest protection campaign. The Forestry Department is committed to further improving forest governance through technical capacity building and widening stakeholder cooperation. It welcomes any initiatives that the Forest Law Enforcement and Governance (FLEG) Program offers to strengthen forest governance and to institutionalize regional and international cooperation towards the protection and conservation of forest resources.

Thematic elements

Enabling conditions

The strong leadership in forestry is complemented by an effective legal and policy framework. The Forestry Department, Ministry of Industry and Primary Resources is the primary government agency mandated by The Forest Act (Chapter 46, Laws of Brunei) for the management and administration of national forest resources. Basically, the act provides rules of the land pertaining to the administration of forests, forest land reservation, forest product harvesting, granting of customary gratuitous rights to forest-dependent inhabitants, stipulation of penalties for forest violations and prescription of forest royalty payments. The act was first enacted in 1934 and has been revised several times including the Forest Act (Amendment) Order 2007 and Forest Act (Chapter 46) – Forest (Amendment) Rules, 2007 to anticipate the latest developments and current trends in the forestry sector.

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The law allocates full administration and jurisdiction of forest reserves to the Forestry Department. Specifically, the Forestry Department is responsible for the overall planning, development and management of all gazetted forest reserves nationwide.

The implementation of the Forest Act is complemented by the 1989 National Forestry Policy and the long-term Forestry Sector Strategic Plan (2004-2023). Furthermore, a number of relevant legislations have been issued to strengthen forest resource management, conservation and protection. These include the Land Code and Land Acquisition Act, the Wildlife Act, the Town and Country Planning Act, the Antiquities and Treasure Trove Act and the Wild Flora and Fauna Order of 2007.

On the operational side, the implementation of forest laws, rules and regulations is done via effective coordination with other government agencies such as district offices, the police, military and customs and excise, and other agencies managing gazetted lands with forest resources. Brunei Darussalam became a party to the Convention on International Trade in Endangered Species (CITES) in 1990; the Forestry Department serves as the country's CITES Scientific Authority and is a member of the CITES Management Authority (entrusted to the Department of Agriculture and Agri-food).

Forest resources found outside the gazetted forest reserves remain under the responsibility of the Forestry Department in a limited capacity. Considering that the land is allocated for uses other than forest purposes, the management jurisdiction of these lands is vested in other government agencies and individuals to whom the land is gazetted or allocated. The Forestry Department only administers the harvesting and utilization of timber and other forest products based on existing forestry rules and regulations.

Prevention

Forest crime in many countries is an alarming situation that threatens the integrity of forest resources. Fortunately, Brunei Darussalam is not seriously threatened by forest crime at the moment. The domestic pressure for informal utilization of forest products is not significant compared to other countries within the region considering the economic dependency of the country on hydrocarbon production.

However, as part of the Forestry Department's strategies to continue the sustainable forest management of forest resources, effective forest conservation and protection activities are being implemented in close coordination with various government agencies.

A comprehensive study conducted for the forestry sector by Andersen and Marsden (1984)³ recommended a 'Reduced-Cut Policy' limiting the annual harvest of timber to 100 000 m³. This policy intended to limit timber extraction from natural forests in order to maintain the supply of local timber sustainably. The wood demand balance is accommodated by the import of semi-finished and finished wood products.

Wood imports are mostly composed of finished wood and mixed-media products from legitimate companies in other countries. Proper documentation is required in order for these products to enter the Brunei market. Thus it is safe to assume that imported wood-based products are of legal origin.

The Forestry Department is also implementing comprehensive awareness programmes that instill awareness of the importance of forests among communities. Nature camps, forest excursions, forestry seminars in schools, the Princess Rashidah Young Nature Scientists Award and other year-round activities are implemented to inform the public of forests' invaluable resources.

Currently, the Forestry Department is strengthening its forest protection activities to control boundary encroachment. The Brunei Government has entered into bilateral arrangements with neighbouring countries for effective boundary management and prevention of illegal exploitation of forest products.

Detection

The land area of Brunei Darussalam is relatively small compared to its neighbours in the region. Any disturbances of significant scale to the country's forest resources can easily be detected by the Forestry Department and its partner agencies.

Regular forest patrols are conducted via air, land and water transport. These forest patrols are carried out as a routine activity of the department's Enforcement Unit. Joint forest patrol operations are also conducted under the 'Jawatan Kuasa Protap Salimbada' composed of representatives from the Royal Brunei Police Force, Royal Brunei Armed Forces, Survey Department, Land Department and Forestry Department.

Otherwise, the Forestry Department also welcomes any information or reports from the public if there is any concern regarding dubious activities.

Suppression

As mentioned earlier, forest crime is not significant in Brunei Darussalam. Illegal activities are mostly limited to cutting of tree(s) by individuals and are addressed at the field level.

Some illegal cutting of trees occurs in the forested areas along the borders of the country. It usually involves illegal cutting of 'gaharu' (*Aquilaria* spp.) which is believed to be sold at good prices in informal markets.

Reports of forest crimes are entered into a database for quick reference. The Police Department has given the Forestry Department access to information pertaining to forest crimes. During operations, the following agencies are involved: the military (logistics), the police (security and arrest), the Survey Department (area verification), the Land Department (land certification) and the Forestry Department (value of the forest products and implementation of the Forest Act).

With regard to boundary encroachment, the Brunei Government engages 'standard operations procedures' with the Malaysian authorities to address illegal harvesting of forest products.

Investigation

Investigation of forest crimes is jointly conducted by the Police and Forestry Departments. While the police execute formal investigation procedures, the Forestry Department provides the technical information and estimation of the value of the forest products.

Prosecution

The prosecution of forest crimes is handled by the police. The Forestry Department has no prosecuting officer to handle the procedure.

Recovery

Recovered forest products will be sent to the police as evidence, once the person has been found guilty by court; the recovered items will then be sent back to the Forestry Department for proper disposal through public auction.

Forest governance (non-law enforcement)

Good governance and effective leadership are key to maintaining the integrity of the country's forest condition. The Forestry Department has the overall responsibility for the management of national forest resources.

Although participatory forest management is still new in Brunei Darussalam, the Forestry Department has already started to invite stakeholder participation through the creation of the Brunei Heart of Borneo (HoB) Council to oversee HoB activities.

The HoB initiative is a milestone for the effective management of forest resources in Borneo. At the country level, His Majesty the Sultan and Yang Di-Pertuan of Brunei Darussalam have reiterated Brunei Darussalam's commitment to the protection of Brunei Darussalam's environment and to promote the sustainability of its forests through the HoB project in which 58 percent of Brunei Darussalam's landmass has been committed. As such, a Project Implementation Framework has been formulated to guide the implementation of the HoB initiative.

At present, the HoB has received overwhelming support from all sectors of society including private corporations, financial institutions, other government agencies as well as other countries that support the initiative's objectives.

Monitoring and reporting

Monitoring and reporting are mainly done by the department's Enforcement Unit. Reported cases together with important related information such as date of investigation, name of person captured, location (via GPS), estimation of the value of the forest products and so forth are all recorded and compiled for ready reference.

However, cases found by other agencies will be shared with the department. Regular meetings conducted with relevant agencies ensure the streamlining of all enforcement activities. Figures 1 to 4 summarize reported illegal activities:

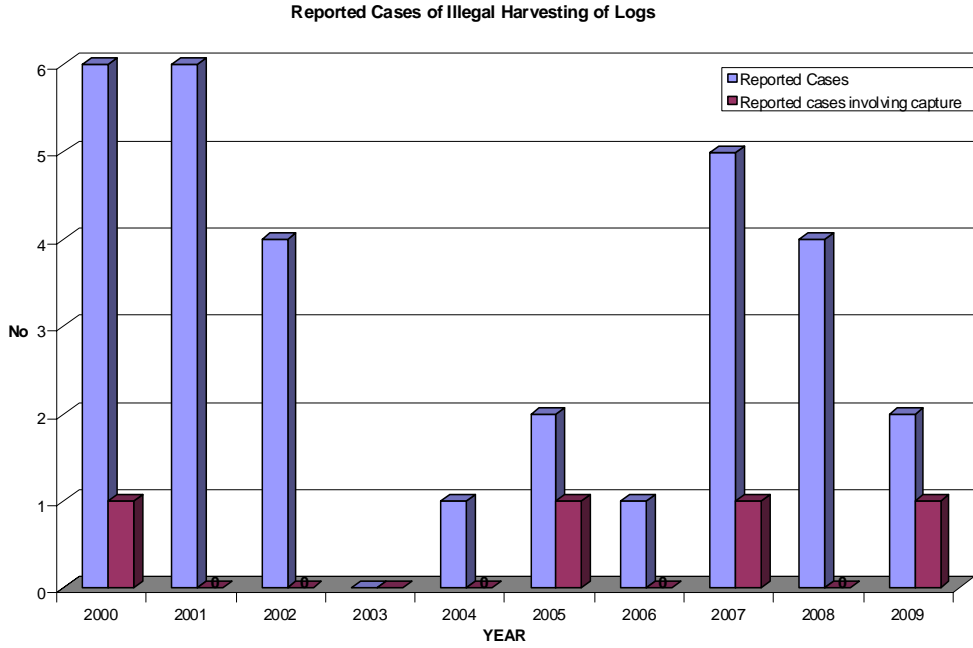


Figure 1. Reported cases of illegal harvesting of logs

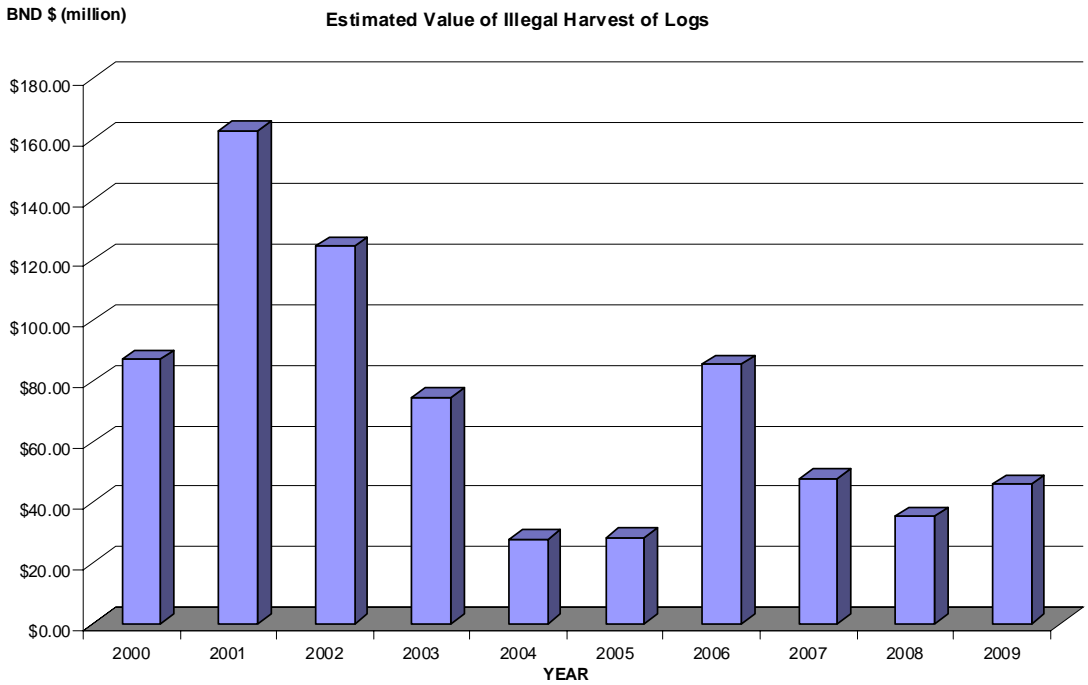


Figure 2. Estimated value of illegal harvesting of logs

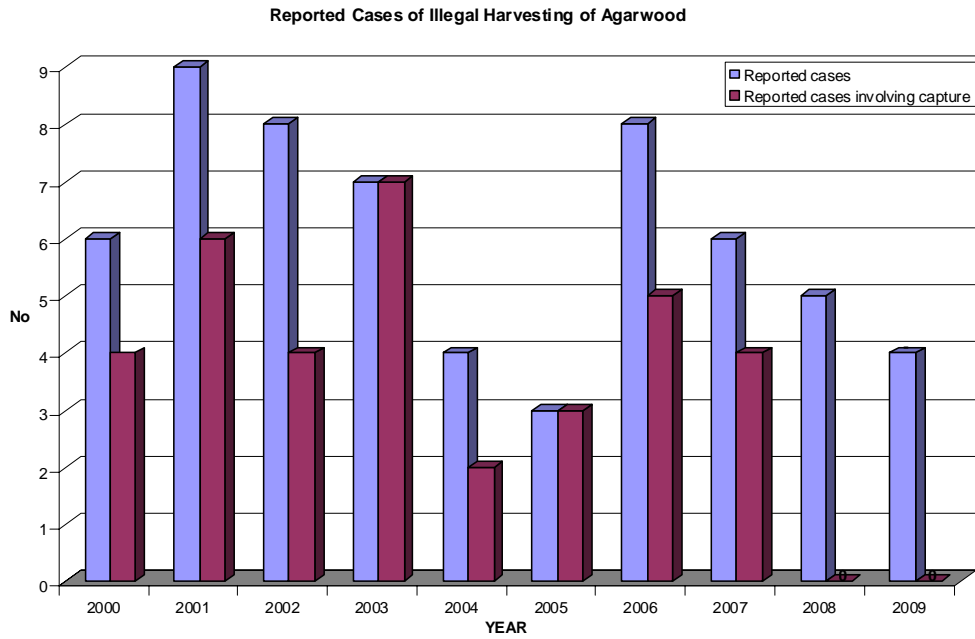


Figure 3. Reported cases of illegal harvesting of agarwood

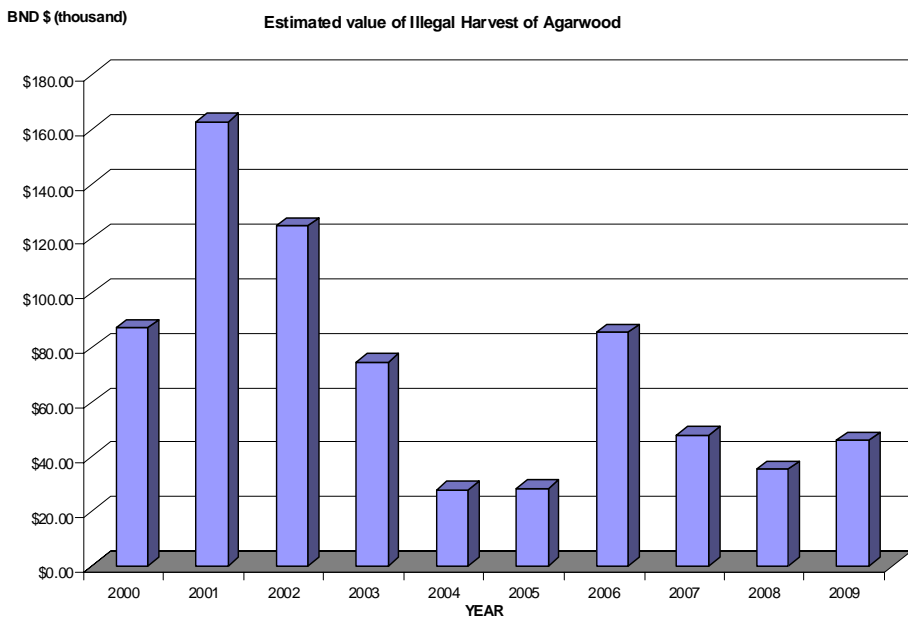


Figure 4. Estimated value of illegal harvesting of agarwood

Comments and conclusion

The FLEG initiative is a welcome development for the Government of Brunei Darussalam, especially the country's forestry sector. We share the common objective of providing the appropriate methodologies for improving forest governance for the conservation and protection of our valuable forest resources. Although Brunei is relatively small in land area, it is an accepted fact that the value of its forest is comparable to other major forested areas in the world.

Forest-related crime in Brunei Darussalam is not considered a serious threat; however, we are keen to provide an aggressive forest protection campaign to protect natural resources. The Forestry Department is committed to further improving forest governance through technical capacity building and widening stakeholder cooperation. As such, we welcome any initiatives that FLEG offers to strengthen our forest governance and to institutionalize regional and international cooperation towards the protection and conservation of forest resources.

Forest law enforcement and governance in Cambodia

Suon Sovann¹ and Khorn Saret²

Summary

The forests of Cambodia cover more than half of the country's total land area and are a significant renewable natural resource. Located at varying altitudes under differing climatic conditions, they not only play important roles in protecting the balance of natural ecosystems and environmental quality, but are also of critical importance to the socio-economic development of the country.

Illegal forest activities resulting in deforestation and degradation are major obstacles for sustainable development and drain socio-economic revenue in Cambodia. They are attributable to inadequate forest law enforcement and governance such as poor monitoring and reporting, lack of prevention and suppression, insufficient facilities, counterproductive trans-border cooperation, unorthodox negotiation with prosecutors and judges and misguided public participation in forest management.

In order to address these issues the Royal Government of Cambodia (RGC) has been implementing in-depth forestry reform, including the establishment of forest laws and relevant regulations, national forest policy, specific strategies, a National Forest Programme and strengthening forest law enforcement and governance. The Forestry Administration (FA) is the government authority for managing forests and forest resources; it has been given the task of implementing the RGC's policies and strategies in forestry reform, especially to improve forest management and good forest governance. In general, this reform has made progress and has been successful.

Thematic elements

Enabling conditions

Forest law enforcement and governance (FLEG) is cross-cutting in nature because it involves multiple aspects of collaboration between relevant government agencies and other countries to efficiently address and combat all forest crimes. The key enabling conditions that support FLEG implementation strategies in Cambodia are described below.

Consolidation of FLEG implementation

The FA in cooperation with relevant government agencies and development partners is preparing a National Forest Programme to manage and develop the forestry sector in Cambodia

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to achieve sustainable forest management. The National Forest Programme has six components (FA 2009a):

1. Forest demarcation, classification and registration;
2. Forest resource management and conservation;
3. Forest law enforcement and governance;
4. Community forestry;
5. Capacity and research development; and
6. Sustainable forest financing.

The FLEG component includes legal and administrative reform, law enforcement and forest crime monitoring and reporting and rapid response to information on forest crimes (DLE 2009a).

The main activities in legal and administrative reform are:

- Establishing a working group on regulations;
- Establishing a working group on forest crime intelligence and inspection;
- Establishing a committee to review and evaluate the work of FA staff;
- Improving institutional structures at the FA;
- Improving FA capacity to manage and resolve conflicts;
- Improving communication in the FA;
- Improving forest governance; and
- Developing monitoring and evaluation (M&E) measures.

Methods to implement law enforcement and forest crime monitoring and reporting are:

- Setting up appropriate means and facilities;
- Developing an effective mechanism for forest crime monitoring and reporting;
- Developing an effective system for communication with judicial bodies *vis-à-vis* forest crimes;
- Improving cross-border collaboration for the prevention and suppression of forest crimes;
- Effective collaboration with other law enforcement agencies;
- Effective implementation of a mechanism to combat illegal land encroachment and land grabbing; and
- Establishing a working group on law enforcement.

The key activities for rapid response to information on forest crimes are:

- Establishing working groups in this context at the central FA and local FA offices; and
- Effective collaboration with journalists and other informants.

The draft National Forest Programme has passed six public consultations at local, subnational and national workshops and will be forwarded to the Ministry of Agriculture, Forestry and Fisheries (MAFF) for further consideration at the end of this year.

Forest policies for FLEG implementation

Forest policies created by the RGC as well as other measures to support FLEG implementation are:

- The National Policy Statement on Forestry Sector in July 2002. The objectives of this policy are forest resource conservation, good governance, socio-economic development and poverty reduction.
- The Forestry Sector Reform on 22 October 1998 to manage forest resources sustainably.
- The Policy Platform and its Triangle Strategy (1998-2003) promulgated and implemented on 30 November 1998 for poverty reduction.
- Order No. 02 dated 6 January 1999 and Declaration No. 01 dated 25 January 1999 to set up measures to mitigate forest anarchy.
- Declaration No. 06 dated 25 September 1999 to curb land encroachment.
- Codes of Practice for Sustainable Forest Management were adopted and applied to logging operations in July 1999.
- The Sub-Decree on Forest Concession Management was adopted in February 2000 to manage forest concessions.
- Imposition of a logging moratorium on concessionaires from 1 January 2002 until their new forest concession management plans (FMPs) and environmental and social impact assessments (ESIAs) were in place.
- Forest concessions' performance was reviewed completely in 1999/2000 with termination of agreements for 17 companies (encompassing 3.5 million hectares); 12 companies needed new FMPs and ESIAs and new investment agreements.
- Order No. 01 dated 9 June 2004 to combat forest land encroachment and land grabbing.
- Order No. 01 dated 10 May 2006 on preventing all types of forest land clearance for real estate.
- Order No. 02 dated 20 September 2006 on management and control of chainsaw utilization.
- Circulation No. 02 dated 26 February 2007 on illegal encroachment of state lands.
- Establishment of national committees and subcommittees at provincial levels in 2004 to assist the FA in combating forest land encroachment and land grabbing.
- The Sub-decree on Permanent Forest Estates Registration & Demarcation dated 1 April 2005 to demarcate and register permanent forest estate (PFE).
- Promulgation of the Rectangular Strategy Phase I in 2002 and Rectangular Strategy Phase II in 2008 to support the state reforms of the RGC and its action plans including forestry reform.

Institutional framework and interagency cooperation

In this context the RGC has established the following mechanisms:

- A Technical Working Group on Forest and Environment (TWG-F&E) involving relevant government ministries and development partners.

- A national committee and subnational committees to prevent and suppress forest land encroachment and land grabbing involving relevant government agencies and prosecutors.
- A national authority to solve land conflicts involving relevant ministries, the National Assembly and lawyers.
- A mobile task force to combat forest and wildlife crimes involving the FA, the police force and the military.

The FA had 1 535 staff in 2009 (1 405 men and 482 women). Five staff members had PhD degrees, 89 had master degrees, 531 had bachelor degrees and 136 had associated degrees; there were 292 technicians and 482 staff had no particular skills (FA 2009b).

General law enforcement

Forest crimes are generally small scale when perpetrated for domestic consumption and local livelihoods, but forest land encroachment and land grabbing are major issues in forest management.

Counter-corruption

Recently the RGC established a national committee under the Council of Ministers to combat corruption. The draft Corruption Law was passed by the Council of Ministers' meeting this year and will be forwarded to the National Assembly.

Prevention

Forest crime prevention strategies

The FA's strategies to prevent forest crimes are:

- Improve collaboration between relevant government agencies and NGOs;
- Improve conflict management capacity within the forestry sector;
- Interagency coordination;
- Improve good governance;
- Promote forest certification;
- Improve international and cross-border cooperation; and
- Develop measures to balance between industrial demand and sustainable timber supply.

Timber theft prevention plans

The FA has advised all of its levels, especially at local levels such as FA inspectorates, cantonments, divisions and triages, to prevent and suppress illegal forest activities including timber theft. Fifty-five FA divisions at the local level have prepared forest management plans including prevention and suppression approaches.

Security management and crime prevention techniques

The FA and the Japan International Cooperation Agency (JICA) organized a training course on 'Forest Crime Investigation and Documentation' at the Forest and Wildlife Training Center. The participants from local FA offices had the opportunity to improve capacity in forest law enforcement.

In a similar vein, a joint training course on 'Nature Crime Investigation' was conducted in Sihanouk Province in January 2007 by the FA in cooperation with the ASEAN-WEN Support Project and the California Department of Fish and Game and funded by the United States Agency for International Development (USAID) and WildAid. Participants included representatives from the FA, General Department of Customs, the Gendarmerie and Economic Police Department.

In October 2009, also at the Forest and Wildlife Training Center, the FA organized a training course on law enforcement, including security management and crime prevention techniques to improve the capacity of FA law enforcement officers. It was organized by the FA and the International Tropical Timber Organization (ITTO) project on 'Strengthening Capacity of Forest Law Enforcement and Governance in Cambodia'. Resource persons included representatives from the FA; the Ministry of Environment; the Ministry of Justice; the Ministry of Land Management, Urban Planning and Construction; the Cambodia CITES Management Authority as well as international experts.

Community awareness programme

The FA has established a community awareness programme funded by the government and the Danish Agency for International Development (Danida) to improve the knowledge of community forestry management (CFM) committees and members in the management and development of community forestry.

Recently, the FA prepared a community forestry programme as part of the National Forest Programme that has the following components (FA 2009a):

- Community forestry identification and formalization.
- Community, institutional and livelihoods development.
- Community forestry development support.

The capacity building of CFM committees and members has been included in the community, institutional and livelihoods development subprogramme. The aim is to optimize the sustainability, productivity and quality of forest products for both domestic use and commercialization and to encourage good institutional governance including:

- Inclusive participation and consensus building;
- CFM committee accountability to community forestry members and stakeholders;
- Participatory planning and budgeting;
- Accounting and financial management;
- Equitable benefit sharing (government, CFM committees and individual members);
- Reporting – transparency and communication;

- Proposal writing;
- Forest protection and rule enforcement; and
- Conflict management.

Forest law extension programme

The FA conducts the extension of forest law and regulations to stakeholders including local authorities and relevant government agencies at provincial, district and commune levels to improve public awareness on forest law and promote participation in forest management.

Sustainable forest management

In this context, the FA prepares management plans for its divisions (forest management units). It also conducts monitoring, assessment and reporting (MAR) using associated criteria and indicators, research on timber demand and supply and industry demand, forest law enforcement and governance and implementation of sustainable forest management elements in the National Forest Programme. All FA divisions prepared forest management plans based on MAR.

Detection

Monitoring of forest crime trends

Formerly, all information pertaining to forest crimes received from informants and community forest members had to be verified to determine whether it was correct and could be addressed by the Forest Law before FA officers could take action.

Based on the rapid response to forest crime information subprogramme, the FA will establish a working group on rapid response to forest crime information received from the media and informants (including community forest members); this group will be responsible for information collection, analysis, recording and reporting to the FA. Also, the local FA will report to FA headquarters on action taken. Collaboration with journalists and informants is vital in combating illegal logging, illegal timber and wildlife transportation and trade, as well as land encroachment and land grabbing.

Aerial surveillance and case tracking

Besides ground surveillance, the FA also carries out aerial surveillance to identify forest crimes especially in deep forests. All aerial survey information is sent to the local FA for subsequent action.

The FA has established a forest crime monitoring and reporting unit since 1999 with independent monitoring of forest crimes by third parties. All forest crime information and documentation is recorded in a Case Tracking System (CTS) by using preliminary investigation reports that have been completed by local FA officers responsible for law enforcement. This mechanism also updates all cases entered in the CTS.

Effective collaboration with journalists and other informants

In the rapid response to forest crime information subprogramme, the FA will deepen its cooperation with the media and other informants to develop efficient and effective reporting and response mechanisms to forest crimes and illegal land grabbing. Measures will be taken to ensure that forest crime information cited by the media or provided by informants is professional and correct. The activities to be implemented are:

- Conducting meetings between the FA and media or informants to develop suitable collaboration systems.
- Carrying out law and legislative extension to the media if necessary.
- Preparing training on forest crime identification and investigation.
- Study tours for journalists to forest crime areas.
- Joint verification of forest crime information if necessary.
- Sharing forest crime information.
- Seeking funds for information extension on prevention and suppression of forest crimes.
- Developing a Free Telephone Hotline and SMS system for receiving forest crime information from the public and establishing an information database.
- Maintaining and developing an information communication network at the FA to accelerate the processing of incoming reports.
- Establishing information boxes at local FA offices to receive forest crime information and other ideas or comments.

Forestry information disclosure

During reform of the concession forest management system in 2002, the FA, in cooperation with relevant government agencies and development partners, carried out public disclosure of the Strategic Forest Management Plan and Environmental and Social Impact Assessment.

In the legal and administrative reform subprogramme, the FA will continue to improve its transparency. The data and information related to forest crimes, or statistics, will be made accessible to the public. The FA will continue to publish its magazines and forestry statistics reports, and will upgrade its Web site regularly. Furthermore, the Public Affairs Unit of the FA will continue to provide information, documents and regulations within the forestry sector for those who request the information. The FA will also continue to share information and experiences in national, regional and international dialogues such as East Asia FLEG, EU FLEGT and ASEAN Regional Knowledge Network (ARKN)-FLEG.

The FA is disseminating information to stakeholders on:

- The Forest Law and related regulations in an extension programme funded by the government and Danida;
- The community forestry programme funded by the government and Danida;
- The rural livelihoods improvement project funded by the United Nations Development Programme (UNDP) and the International Fund for Agricultural Development (IFAD) including the extension of forest law, fishery law and land law; and

- Disclosures of auctions of contraband derived from forest crimes and annual bidding coupes.

Financial audit requirement

Every year the FA is audited by MAFF, the Ministry of Economics and Finance and the National Audit Authority in connection with financial aspects of the forestry sector. The FA also has internal monitoring and evaluation mechanisms.

Forest crime intelligence programme

In the legal and administrative reform subprogramme, the FA will establish a working group on intelligence and inspection *vis-à-vis* forest crimes to investigate crime-related scenes throughout the country and FA follow up. The main activities to be undertaken by the group are:

- Conduct field visits and audit all levels of local FA offices in connection with forest law enforcement.
- Coordinate with relevant government agencies to develop appropriate and effective law enforcement systems.
- Monitor and investigate forest crimes throughout the country, including illegal forest land encroachment and land-grabbing activities.
- Collect and analyse forest crime information from other sources and incorporate this into forest law enforcement systems.
- Prepare intelligence and inspection reports for the FA with recommendations.

Suppression

Forest crime information management systems

There are two forest crime information management systems in the Department of Legislation and Law Enforcement of the FA:

- The CTS under the management of the Forest Crime Monitoring and Reporting Office that was established in 1999 and continues to operate effectively today. This system monitors all forest crimes and records information on action that has been taken.
- The forest crime information management system under the responsibility of the Investigation and Rapid Response Office that was established in 2009. This system monitors, collects, analyses, investigates, verifies and measures forest crime information reported by the media and informants.

Criminal penalties

Based on Article 93 of the Forest Law, any person or legal entity that violates a provision of this law shall be subject to penalties as follows:

- Class I forestry offences: 5-10 years in prison and confiscate all evidence as state property.

- Class II forestry offences: 1-5 years in prison and/or a fine of 10 000 000 riels³ to 100 000 000 riels and confiscate all evidence as state property.
- Class III forestry offences: 1 month to 1 year in prison or a fine of 1 000 000 riels to 10 000 000 riels and confiscate all evidence as state property.
- Warning, repair of damage, fines, revocation or suspension of agreements or permits.



Plate 1. Illegal logging contraband confiscated by FA law enforcement officers (courtesy Suon Sovann)

Roles and duties of relevant law enforcement agencies

Based on Article 78 of the Forest Law, all levels of local authorities, armed forces, customs and excise agents, airport and port authorities and other concerned authorities shall facilitate and assist in the investigation, prevention and suppression of forest crimes and temporarily safeguard any seized evidence, upon request of FA officials. If any relevant authority has witnessed a forest crime he/she:

- Shall immediately inform the nearest office or official of the FA.
- May temporarily detain the offender and evidence until delivery of the case to FA officials qualified in law enforcement to proceed with legal action.
- Shall have no authority to directly collect fines or confiscate evidence.

Investigation

Investigation planning for forest law enforcement officers

In general, investigation planning is prepared by all levels of the FA to investigate forest crimes in their jurisdictions. Article 76 of the Forest Law states that FA officials qualified in law enforcement have jurisdiction to investigate forest crimes and file such cases and documents in courts. All levels of the FA have the duty to investigate, control and suppress forest crimes within their assigned territory.

Adequate legal knowledge of forest law enforcement officers

Capacity building for FA forest law enforcement officers is very important to upgrade their knowledge and skills on new legislations and operational techniques to combat illegal forest activities; for example how to address cross-border issues related to timber and wildlife trade, interagency cooperation on prevention and suppression of forest and wildlife crimes and understanding rules in the Code of Criminal Procedure.

Forest crime reports

There are monthly, quarterly, semester, nine-monthly and annual reports on forest crimes prepared by the FA for MAFF and the Focal Point of the Council of Ministers. Based on the records, 8 440 cases of forest crimes were entered into the computerized CTS during 1999 to 2009.

Interview and witness statements

Offenders who are arrested in the field must be interviewed to complete documentation for fines and courts.

Based on the Co-Prakas No. 097 of 3 March 2006 of the Ministry of Justice and MAFF the forms to be completed by FA law enforcement officers to be sent to the prosecutors are:

- Offence Minutes.
- Minutes of Flagrant Offences.
- Search Minutes.
- Interrogation Minutes.
- Minutes of Temporary Seizure of Evidence.
- Minutes of Non-wood Forest Products (NWFPs)/Wood Products for Analysis.
- Minutes of Temporary Detentions.
- Minutes of Delivery of Arrested Offenders.
- Biographical Information on Offenders.
- Level of Penalty Recommended.
- Letter of Evidence Maintained.
- Transactional Fine Decision.
- Warrant for Sending a Case to the Court.

Other important forms that FA enforcement officers may have to deal with are the Request for Search Warrant, the Request for Arrest Warrant and the Transactional Fines Form. Not all of these forms need to be sent to the prosecutor. It depends on the types of forest crimes and related articles in the Forest Law. The procedures to complete these forms are based on the Forest Law and the Code of Criminal Procedure, 2007.

Prosecution

Forest crime evidence

Evidence of forest crimes is considered to be:

1. Forest products and by-products or wildlife products, which constitute real evidence of the crime.
2. Materials, equipment and transportation used to commit the forest crime.

Evidence in item 1 is temporarily seized until the crime has been resolved, whether by paying a fine or a final decision by the court. During transportation of forest products and by-products, a driver who is not accompanied by the owner of the forest products and by-products is temporarily held for investigation of the offenders and other people involved (Article 82 of the Forest Law).

Judges' and prosecutors' knowledge of forest and forest-related laws

In general, judges and prosecutors are not well-informed about forest and forest-related laws. The roles and duties of prosecutors and judges are stated in the Code of Criminal Procedure, 2007.

Recovery

Processes for addressing forest crimes

There are two processes for addressing forest crimes in Cambodia based on the Forest Law:

1. The kinds of forest crimes addressed throughout the FA via its rights under the Forest Law. These crimes can be resolved through fines. After the offender pays the fine the evidence is seized as government property. If the offender does not agree to pay the fine the FA must send the case to the prosecutors.
2. Crimes that are resolved through the court system based on the Forest Law (sent by the FA to prosecutors).

The implementation of court verdicts or final court decisions is the duty of the FA, with the exception of imprisonment. All court verdicts or court decisions on forest crimes are copied to the FA. After court verdicts or court decisions come into effect, confiscated evidence is managed by the FA according to legal procedures.

Forest governance (non-law enforcement)

Forest governance framework

Forest governance is important to ensure sustainable forest management and law enforcement in Cambodia. The government continues its work on:

- Promoting participation of all relevant stakeholders (other ministries and institutions, development partners and civil society organizations) in the process of implementing sustainable forest management and developing effective forest crime prevention and suppression systems:
 - Strengthen interagency cooperation through the TWG-F&E and cooperation with development partners, NGOs and civil society organizations.
 - Strengthen the national and subnational committees on Prevention, Elimination and Suppression of Illegal Forest Land Encroachment and Land Clearance to develop effective systems for solving conflicts over forest land and preventing and suppressing illegal forest land encroachment and land clearance, by involving main stakeholders.
 - Strengthen the National Authority on Land Conflict Resolution to address land conflicts in which relevant ministries are involved.
 - Promote the participation of local people in forest management and conservation.
- Improving the rule of law:
 - Ongoing reforms to ensure that people of every status follow the laws.
 - Support and provide finance for crackdowns on forest crimes.
 - Improve communication with judicial institutions to resolve forest crime cases.
- Improve transparency:
 - Data, information and statistics related to forest crimes are made accessible to the public.
 - The FA continues to publish its forestry magazines every six months, and forestry statistics reports every two years, and upgrades its Web site.
 - The FA continues the process of the Public Affairs Unit to provide information, documents and regulations within the forestry sector for those who request information.
 - The FA continues to involve and share information and experiences in national, regional and international dialogues with EA FLEG, EU FLEGT, ARKN-FLEG, ASEAN-WEN, ITTO, FAO and the World Bank.
- Improve responsiveness:
 - The FA will establish a response mechanism for forest crime information at the central and local levels to review, verify and address illegal forest activities, wildlife crimes and forest land encroachment reported by the media.
 - Ongoing effective communication and collaboration with the Rapid Response Mechanism at the Council of Ministers.

Forest landowners

Forest resources are the government's public property as stated in Article 58 of the Cambodian Constitution and Article 15 of Cambodian Land Law. They are managed by three government agencies. PFEs are under the purview of FA (MAFF), flooded forests including mangrove forests are under the purview of the Fishery Administration (MAFF) and protected areas (23 areas) such as national parks, wildlife sanctuaries, protected landscapes and multiple-use areas (Article 3 of the Forest Law) are under the Ministry of Environment.

PFEs consist of permanent forest reserves and private forests. For local communities living within or near the permanent forest reserves, the state recognizes and ensures their traditional user rights.

Any individuals who plant trees on private land or on state forest land where they have been granted user rights, have the right to maintain, develop, use, sell and distribute their products. The planting of trees within state forest land is done directly by the FA, community forestry or people via their user rights to state forest.

The state provides access to permanent forest reserves for local communities to manage, and conserve and develop based on the Forest Law, subdecree on CFM and guidelines for community forestry. To date, the FA in cooperation with relevant government agencies, local authorities, local communities and development partners has established 399 community forests in permanent forest reserves amounting to 380 587 hectares; 80 385 households from 661 villages, 176 communes, 69 districts and 21 provinces participate (DFC 2009).

Monitoring and reporting

Results of prevention and suppression

The FA in collaboration with relevant government agencies, local authorities and communities has prevented and suppressed numerous forest crimes. Large-scale crimes have been prevented and eliminated. The vast majority of forest crimes consist of small-scale operations in deep forests using chainsaws, ox-carts and cars for transport (see Plate 1), to meet domestic timber demand and supplement the livelihoods of people living in and near forest areas.

The FA recorded 8 440 cases and impounded 37 191 m³ of logs and square timber, 17 374 m³ of sawntimber (Figure 1), 41 184 head and 17 907 kg of wildlife and wildlife products, and various NWFPs from 1999 to 31 October 2009. A total of 3 081 cases were sent to court from 1999 to 2008 (DLE 2009b).

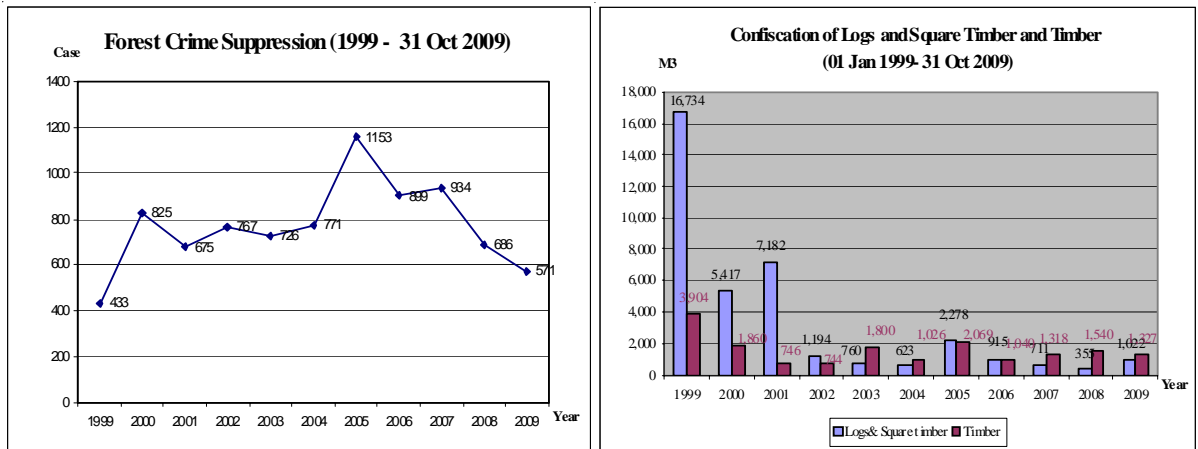


Figure 1. Crime suppression and confiscation of illegally logged timber, 1999-2009

By establishing committees to crack down on illegal forest land encroachment and land grabbing mentioned earlier, approximately 270 000 hectares were addressed through legal procedures and returned as state property from 1999 to 2008 (DLE 2009b).

Production and trade flow in timber and timber products

Forest products include round logs, sawntimber, processed timber, veneer, plywood, fuelwood, charcoal, poles, rattan, liquid resin, solid resin and bamboo. Table 1 shows the production of timber and timber products from 2000 to 2006.

Table 1. Forest production, 2000-2006

Forest products	Unit	2000	2001	2002	2003	2004	2005	2006	Total
Round logs	m ³	187 488	126 697	644	0	4 248	9 552	2 526	331 155
Acacia and Eucalyptus	m ³	0	1 028	6 898	0	1 640	0	3 760	13 326
Sawn- and processed timber	m ³	19 789	16 174	10 016	3 269	3 971	3 675	1 020	57 914
Veneer	m ³	25 749	9 501	1 360	0	0	2 872	0	39 482
Plywood	m ³	17 980	26 039	3 762	0	0	0	0	47 781
Fuelwood	m ³	56	0	7 000	12 753	0	1 359	1 166	22 334
Charcoal	Tonnes	350	0	0	10	0	50	0	410
Poles	Poles	6 210	1 875	52 213	22 961	23 552	0	20 255	127 066
Rattan	Tonnes	0	79	23	10	147	4	40	303
Liquid resin	Tonnes	157	208	304	364	683	185	1 494	3 395
Solid resin	Tonnes	0	10	0	0	0	0	0	10
Bamboo	Tonnes	719	208	3 075	2 562	1 634	555	3 280	12 033

Source: Forestry Administration (2007).

Cambodia exports sawntimber (S2S, S4S), veneer, plywood, furniture, flooring, railway sleepers, particleboard, carvings, processed plantation wood, Acacia and Eucalyptus wood chips to the People's Republic of China, France, Republic of Korea (ROK), Lao PDR, Japan, Taiwan P.O.C., Thailand, Viet Nam and the United States. Total timber product exports were approximately 145 469 m³ and 6 000 tonnes from 2000 to 2006 (FA 2005; FA 2007).

Cambodia also exports NWFPs, but in small amounts such as rattan, bamboo, mushrooms and charcoal processed from plantation wood to China, France, ROK, Japan, Thailand, Viet Nam, Ukraine and the United States. Approximately 9 389 tonnes were exported from 2002 to 2006 (FA 2003; FA 2007).

Fiscal revenue from forest sector

Revenue in the forest sector comes from fines of forest crimes, auction of confiscated material, annual bidding of coupes, reforestation fees and royalties from forest concessions (although most forest concessions have been suspended since 2002), royalties from other forests and other sources. The total revenue from the forestry sector was approximately US\$21 441 800 from 2000 to 2006 (FA 2007). Forestry contributes 6.9 percent of the agriculture sector and the agriculture sector contributes 34 percent of the GDP (MAFF 2009).

Comments and conclusion

FLEG in Cambodia is improving through the implementation of government policies and strategies. The key actions taken by the FA are:

- Successful forestry reform based on the Rectangular Strategy Phase I and continuing reform in the Rectangular Strategy Phase II.
- Preparing the National Forest Programme.
- Strengthening good forest governance with the participation of all relevant stakeholders, improving the rule of law, transparency and responsiveness to achieve sustainable forest management.
- Strengthening forest law enforcement.
- Promoting community forestry for forest management.

However, forest land encroachment and land grabbing are still the main issues confronting FLEG implementation. Rising populations, economic development and suboptimal forest law enforcement and governance exacerbate the situation.

Preparation of this report was hampered by insufficient information and the fact that some aspects of FLEG are still being studied, such as the contribution of forestry to formal GDP and employment, processes for addressing forest-related money laundering and the corruption context.

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Forest law enforcement and governance in the People's Republic of China

Yujie Chen¹

Summary

The People's Republic of China has a legal framework and a management system for forest harvesting, timber transportation and processing. This system issues licences for these activities and punishes those in violation of laws based on the Forest Law and Regulations on Implementation of the Forest Law. China has strong capacity in forest law supervision and enforcement as well as forest resource protection and management. The country has strong commitment to international efforts that address combating illegal logging and trade: It is signatory to CITES, the Ramsar Convention, the CBD, the UNCCD, the UNFCCC, NLBI and other international mechanisms and cooperates with FAO, ITTO, IUCN, TNC, WWF and Forest Trends in actively supporting NGO efforts in this context. China is strengthening international cooperation to suppress illegal logging, for example MOUs with the United States, Indonesia and Australia, establishment of a bilateral forum on combating illegal logging and associated trade and active participation in the regional FLEG processes in Asia, Europe and North Asia. Assistance is offered to some other developing countries in protecting and sustainably developing their forest resources.

China will continue to conduct technology transfer, personnel training, community development and other activities with wood-producing countries in certain developing countries. It will extend cooperation and communication with wood-consuming countries in various ways such as the U.S.-China Strategic and Economic Dialogue, EU-China Bilateral Coordination Mechanism on FLEG and China-Japan High-level Economic Dialogue. A significant effort is being made to achieve a common view on wood legality with other countries and trying to evolve a solution for the joint verification and mutual recognition of wood legality that is in line with the de facto situations of all involved countries, and especially one that is acceptable to developing countries including China itself.

The legal framework for forest harvesting in China

The Criminal Law of the People's Republic of China (hereafter referred to as the Criminal Law), the Forest Law of the People's Republic of China (hereafter referred to as the Forest Law), the Law of the People's Republic of China on Desert Prevention and Transformation, the Environmental Protection Law of the People's Republic of China, the Flood Control Law of the People's Republic of China and other relevant laws specify definite and strict regulations on forest resource protection and intensified management of forest harvesting. Punishments for infringements of these laws are elaborated below.

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Article 344 of the Criminal Law: Whoever, in violation of the provisions of the law, illegally cuts down or destroys rare and valuable trees or other plants under priority state protection or illegally purchases, transports, processes and sells rare and valuable trees or other plants and by-products under priority state protection shall be sentenced to a fixed term of imprisonment of not more than three years, detention or public surveillance and concurrently receive a fine. If the circumstances are serious, the offender shall be sentenced to a fixed term of imprisonment of not less than three years and not more than seven years, and concurrently receive a fine.

Article 345 of the Criminal Law: Whoever, in violation of the provisions of the Forest Law, denudes forests or other woodlands shall, if the volume involved is quite high, be sentenced to a fixed term of imprisonment of not more than three years, detention or public surveillance, and concurrently or independently receive a fine. If the volume involved is high, the offender shall be sentenced to a fixed term of imprisonment of not less than three years and not more than seven years, and concurrently receive a fine. If the volume involved is very high, the offender shall be sentenced to a fixed term of imprisonment of not less than seven years and concurrently receive a fine.

Whoever, for the purpose of profit, illegally purchases forest trees which are clearly known by the purchaser to have come from denuded forest areas shall, if the circumstances are serious, be sentenced to a fixed term of imprisonment of not more than three years, detention or public surveillance, and concurrently or independently receive a fine. If the circumstances are especially serious, the offender shall be sentenced to a fixed term of imprisonment of not less than three years and not more than seven years and concurrently receive a fine. Whoever illegally cuts down or denudes forests or other woodlands in nature reserves at the national level shall be given a heavier punishment.

Article 407 of the Criminal Law: Staff members of forestry authorities, who in violation of the provisions of the Forest Law issue forest harvest licences that exceed the approved annual harvest quota or issue forest harvest licences indiscriminately in violation of relevant provisions, and if the circumstances are serious and lead to serious damage to forests, shall be sentenced to a fixed term of imprisonment of not more than three years or detention.

Article 29 of the Forest Law: In compliance with the principle that the consumption of timber shall be lower than the growth, the state shall impose strict controls over the annual forest cutting volume. In the formulation of the annual cutting quotas, the state-owned enterprise, institution, farmland, factory or mine shall be calculated as units for state-owned forests and trees, and the county as a unit for collectively used forests and trees and privately-owned trees. The forestry authorities at provincial, autonomous region and directly administered municipality levels shall compile a summary sheet, which shall be submitted to the State Council for approval after examination by the people's government at the same level.

Article 32 of the Forest Law: To cut trees, it shall be necessary to apply for a cutting licence and conduct the cutting according to the provisions of the licences; this does not cover cutting by rural citizens of isolated trees in their private farm plots and surrounding their houses.

Article 33 of the Forest Law: Authorities in charge of examining and issuing cutting licences shall not issue the cutting licences in excess of the annual cutting quota.

Article 35 of the Forest Law: Tree-cutting organizations or private individuals shall, in accordance with the area, number of trees, tree species and period of time specified in the cutting licence, finish the reforestation task; the area and number of trees in the reforestation exercise shall not be smaller than those cut.

Article 39 of the Forest Law: In the case of unlawful cutting of forests or other trees, compensation in damages shall be paid according to the law; the forestry authorities shall order the reseedling of trees at ten times the number of trees illegally cut, confiscate the illegally cut trees or income generated from selling illegally cut trees and impose a fine amounting to between three and ten times the value of the illegally cut trees. In case of wanton cutting of forests or other trees, the forestry authorities shall order the reseedling of trees at five times the number of trees wantonly cut and impose a fine amounting to between two and five times the value of the wantonly cut trees. In case of refusal to reseed trees or tree reseedling not being in line with the relevant stipulations of the state, the forestry authorities shall conduct the reseedling on behalf of the law-breakers who shall pay for all the necessary expenses. Should the illegal or wanton cutting of forests or other trees constitute a criminal offence, the legal ramifications shall be addressed.

Article 41 of the Forest Law: If the approved annual cutting quota exceeds that in the tree-cutting licence or authorization is irregular in the issuance of the tree-cutting licence, tree transport documentation, export approval documentation and import and export licences, the forestry authorities of the people's government at a higher level shall order corrective action and assign administrative punishment to executives and employees directly responsible. If the relevant forestry authorities have not ordered corrective action, the forestry authorities under the State Council may directly handle the case; if a criminal offence is found, the legal ramifications shall be addressed.

Article 42 of the Forest Law: If the tree-cutting licence, timber transport documentation, export approval documentation and import and export licences are traded in violation of the provisions of this law, the forestry authorities shall confiscate the illegally traded licences and documentation as well as illegal income, and impose a fine amounting to between one and three times the payment for illegally traded licences and documentation; if a criminal offence is committed, the legal ramifications shall be addressed.

Article 43 of the Forest Law: In the case of consciously purchasing trees illegally or wantonly cut in forest districts, the forestry authorities shall order the termination of the illegal activities, confiscate the illegally purchased trees or income from selling of such trees and may impose a fine amounting to between one and three times the payment for the illegally purchased trees; if a criminal offence is found, the legal ramifications shall be addressed.

Article 44 of the Forest Law : If land reclamation, rock quarrying, sand quarrying, soil extraction, seed collection, resin tapping and other activities are conducted in violation of the provisions of this law, as a result of which forests and trees are damaged, compensation for damages shall be paid. The forestry authorities shall order the termination of the illegal activities and the reseedling of trees between one and three times the number of trees damaged

and may impose a fine amounting to between one and five times the value of the trees damaged.

Article 45 of the Forest Law: Should tree-cutting organizations or private individuals fail to finish the reforestation task in line with the provisions, the authorities that issued the cutting licence shall have the right to revoke the cutting licence until guilty parties have completed their reforestation tasks; in the case of serious violations, the forestry authorities may impose a fine and assign administrative punishments to the employer or authorities at a higher level involving persons directly responsible.

Article 44 of the Environmental Protection Law: Whoever, in violation of this law, causes damage to natural resources such as forests, grassland, water, minerals, fish, wild animals and wild plants shall bear legal liability in accordance with the provisions of relevant laws.

Article 25 of the Flood Control Law: River channel or lake administration authorities shall arrange for the planting and tending of trees along protection dykes, riverbanks or lake sides. No trees along protection dykes or riverbanks may be felled without authorization. Anyone who wishes to fell trees along protection dykes or riverbanks shall first obtain a felling licence and fulfill the quotas for replanting.

Article 16 of the Law on Desert Prevention and Transformation: Local people's governments at the county level or those who live near desertified land shall allocate certain portions of land for the creation of windbreaks and planting of sand-fixing vegetation (forest 'nets'), development of forest zones and planting of perennial bushes and herbaceous plants. The administrative departments in charge of forestry shall be responsible for determining the standards and specific tasks for tree and forest planting and shall organize patch-by-patch implementation, determine responsibilities and ensure completion.

Except for tree felling for regeneration purposes, no trees may be cut down in the forest nets or forest zones. If felling for regeneration purposes must be conducted in these areas, then new forest nets and forest zones must be developed near them.

No felling shall be approved in forest net and forest zone areas where regeneration is difficult.

Forest harvesting, timber transportation and processing systems

In order to protect forest resources and prevent illegal logging, the government has developed a range of laws and regulations with the Forest Law and Regulations on Implementation of the Forest Law (RIFL) as the core instruments.

The Forest Law and the RIFL address management of forest harvesting including the annual allowable forest cut system (AAC), the licence-based harvesting system and the annual timber production planning system.

Annual allowable forest cut

Article 29 of the Forest Law stipulates that in compliance with the principle that the consumption of timber shall be lower than its growth, the state shall impose strict controls over the annual forest-cutting volume. In the formulation of annual cutting quotas, state-owned enterprises, institutions, farms, factories or mines shall be calculated as units for state-owned forests and trees, and the county as a unit for collectively used forests and trees and privately owned trees. Forestry authorities at the provincial, autonomous region and directly administrated municipality levels shall compile a summary sheet, which shall be submitted to the State Council for approval after examination by the people's government at the same level.

Article 28 of the RIFL stipulates that the annual cutting quotas approved by the State Council shall be reviewed every five years.

Since its implementation in 1987, the AAC quota system has played a significant role in protecting forest resources, curbing their consumption and suppressing illegal logging, and has been improved in practical use. During the 8th Five Year Plan, commercial timber, farmers' timber for private use, timber for the cultivation industry and fuelwood were all included in the annual AAC quota; thus, the management of the gross volume of forest cutting and control over each subquota were undertaken for forest resource consumption and its structure. During the 9th and 10th Five Year Plans a subquota based on harvest was added, thus making the AAC more scientific and standardized.

Licence-based forest harvesting

The licence-based forest harvesting system is an important measure to ensure the implementation of the AAC system and effective means to curb improper consumption of forest resources, sustain their growth and prevent deforestation.

The Regulation on Protecting Forest and Developing Forestry issued by the State Council makes it clear that the licence-based forest harvesting system shall be implemented across the country. According to the Forest Law and RIFL, to cut trees, it is necessary to apply for a cutting licence and conduct cutting according to the provisions of the licence. Issuers of the cutting licence include forestry authorities or other authorized sectors or institutions. Cutting licences cannot be issued under the following circumstances:

- Harvesting of shelterbelts and forests for non-tending or non-regenerating purposes or cutting of trees during mountain closure periods or in closed mountains.
- Reforestation tasks have not been fulfilled following harvest in the previous year.
- Preventive and remedial measures have not been taken when significant deforestation, forest fires or pests and diseases occurred in the previous year.

Timber production planning

Article 30 of the Forest Law provides that the government develops the annual timber production plan, which shall not exceed the approved AAC. Article 29 of the Forest Law provides that cutting of forest and trees for sale must be included in the national annual timber production plan. Article 39 of the Forest Law provides that cutting of forest and trees in excess

of the timber production plan shall be punished in the same way as punishment for deforestation.

The management system is in line with the de facto forest situation in China. It is among the legal means for the government to control and regulate the annual volume of commercial timber and to ensure that the annual cutting of commercial timber shall not exceed the cutting quota. The annual timber production plan is developed by the State Council and follows the legal criteria for timber production.

Licence-based timber transportation

The management system for licence-based timber transportation is an important measure to maintain normal timber transportation discipline and prevent illegally cut timber from circulation.

Article 37 of the Forest Law provides that transportation licences issued by forestry authorities are mandatory for transporting timber out of the forest, except for the timber allocated by the government. Article 35 of the RIFL provides that the timber transportation licence shall be valid from the origin to the destination and must accompany the timber. No institution or individual is allowed to be a carrier without a timber transportation licence.

There are two categories of timber transportation licences, i.e. one between provinces and the one within a province. The modality of the licence between provinces shall be designed and printed out by the forestry authority of the State Council. It shall be issued by the forestry authority at the provincial level or other authorized institutions.

The modality of the licence within a province shall be designed and printed out by the provincial forestry authority. It shall be issued by forestry authorities at or above the county level.

Timber processing

The management system for timber processing, the AAC and the licence-based timber harvesting and transportation systems have given rise to an integrated management system. Article 34 of the RIFL provides that timber processing in forest areas must be approved by forestry authorities of the government at or above the county level. No institutions or individuals are allowed to purchase timber logged without cutting licences or from other illegal sources. The licence-based system for timber processing is implemented across most provinces. Institutions or individuals engaged in timber processing must apply for and receive the timber-processing licence from forestry authorities at or above the county level before applying for a business licence from industrial and commercial authorities or they shall not issue business licences.

Forest resource supervision and law enforcement

Human capacity in forest resource protection and management

There are over 3 200 forest resource administrative agencies of various levels with over 18 000 staff members and over 30 000 forestry stations across China. Forest resource supervising agencies are established in 14 provinces with 150 commissioners; there are 6 769 forest police stations run by 587 000 forest police officers. The forest police was established in 1984 and listed under the national police. Under the Ministry of Forestry (State Forestry Administration), the Forest Police Bureau was set up and listed in the Ministry of Police. Article 20 of the Forest Law provides that forest police shall be established in forest areas according to related regulations; they shall be responsible for maintaining security, protecting forest resources in their areas and exercising administrative rights to punishment under authorization by the Forestry Department of the State Council as stipulated in Articles 39, 42, 43 and 44 of the law. These provisions specify the status, responsibilities, rights and management scope and system for forest police. For over 20 years the forest police force has been getting stronger; it has become a specific armed force for safeguarding forest and wildlife resources as well as ecological and social security in forest areas.

Legal enhancement of the forest resource management system

The State Forestry Administration has issued the Regulations on Punishment Responsibilities System of the Destruction of Forest Resources and Reporting System of Severe Cases, Guidelines on Occupation and Impressionment of Forest Land, Guidelines on Strict Management of Logging of Natural Forest, Circular on Issue Relating to Harvesting of Trees, Emergency Measures on Severe Cases of Ecological Destruction and other regulations, which have enhanced the legal management of forest resources.

Strict punishment for destruction of forest resources

Since 1999, crimes related to destruction of forest resources and wildlife have been rampant in some areas. The forest police launched a series of specific campaigns to suppress illegal logging, purchase, transportation and processing of timber and other illegal activities. The forest police confiscated 590 000 m³ of illegal timber in 2004 and 102 400 m³ in 2005, which severely curtailed illegal logging and trade activities.

Combating illegal logging and associated trade

The government attaches great importance to information exchange on forest resource management among wood-producing, processing and consuming countries and their sovereignty. It emphasizes the enhancement of coordinated synergy and information dissemination to develop verification criteria of wood legality to meet international standards in addressing illegal logging and associated trade and safeguarding sustainable global forest development.

Seven principles to prevent illegal logging

1. National sovereignty

All nations in the world, developed or developing, large or small, should have equal development rights. The management and utilization of forest resources is a component of national sovereignty. National governments can formulate programmes on protection and utilization of forest resources according to their socio-economic status and development requirements. This is a principle in the Rio Statement of Forest Principles.

2. Predominant roles of governments

The government is the main body for legislation, legal enforcement and legal management of forest resources and should predominate in and be committed to combating illegal logging and trade, intensify internal inspection and management procedures, regulate the logging activities of the industry, strengthen customs and excise control and improve national forest legislation and enforcement.

3. Sustainable forest management

While upholding their national sovereignty in forest utilization, all countries should actively consider their international commitment and include sustainable forest management and development in their national political, economic and social development agendas, formulate and implement national forest development plans, create forest management and logging plans and improve the supervision and monitoring of forest logging and timber transportation; sustainable forest management should be achieved via the coordinated development of economic, ecological and social benefits.

4. Protection of international trade

Logging is a significant component of forest management and the development of the forest industry is an important pillar in supporting sustainable forest management; international trade of timber products is a strong conduit of economic forest benefits. The forest industry is integral to the coordinated development of the economy, society and ecology of countries where forests are found. While combating illegal logging and associated trade, efforts should be made to promote and protect regular international trade and break down any barriers that counter market principles or constrain regular timber trade.

5. Global cooperation

Illegal logging and related trade is a global issue. All countries should combat these problems as they are closely related to international economic order. Utilization of resources should be considered in a holistic fashion in the international economic community. Bilateral, regional and global cooperation should be strengthened to set up effective international mechanisms and information exchange for the management of forest resources and capacity building in national forest management and monitoring should be enhanced. Considering regional differences, the United Nations Forum on Forest (UNFF) should increase its capacity to implement globally coordinated efforts. Therefore, all countries should support the UNFF

for the global achievement of sustainable forest management and international instruments on forest issues.

6. Scientific definition, evaluation and reporting

Being a global issue concerning national economic, social and legal aspects, a global definition should be devised to strictly address the basis, boundaries and modality of illegal logging. Globally consistent monitoring and evaluation criteria should be established to combat illegal and protect legal logging. This could possibly be done under the auspices of the UNFF.

7. Community participation and benefits

There are many factors behind illegal logging that are closely related to poor national forest legislation and enforcement and profiteering by some elements of the forest industry; but the root cause is poverty and the high dependency of forest dwellers on forest products. Solutions should consider better understanding of the lives of forest dwellers, establishing benefit and incentive systems for their forest management practices, seeking alternative economic benefits for them and recognizing the rights of poor people. When forest communities benefit from forest management, they will actively participate in protection activities. The international community should fulfill its commitment to achieving the Millennium Development Goals by helping developing timber-producing countries to eradicate poverty in forest areas.

Policies and actions for promoting sustainable forest product trade and suppressing illegal logging

National aspects

1. Forest resource management systems are being developed through legislation and formulation of executive regulations. The Chinese Government implements systems for cutting quotas and licence-based cutting, transportation, trading and processing as well as ensuring the legality of wood and wood products.
2. Governance and laws and regulations are strictly enforced and forest resource management has been strengthened. Wood inspection stations have been set up in various localities nationwide, together with forest police and armed police to assist in the management and control of forest resources for their sustainable utilization. They have effectively deterred the illegal harvest and trade of forest resources.
3. Imports and exports of wood and wood products have been enhanced and custody procedures have been tightened. In line with the Foreign Trade Law of the People's Republic of China, the Customs Law of the People's Republic of China, the Forest Law, the RIFL, the Regulation of the People's Republic of China on the Administration of the Import and Export of Goods and other relevant laws, regulations and international conventions, the Ministry of Commerce, the General Administration of Customs, the State Forestry Administration and other relevant departments implement the joint supervision of the import of wood and wood products and combat illegal trafficking activities.

International aspects

1. The Chinese Government strictly addresses illegal logging and associated trade and is actively participating in various multilateral and bilateral cooperation thrusts. China is signatory to the **Convention on International Trade in Endangered Species (CITES)**, the Ramsar Convention, the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), United Nations Framework Convention on Climate Change (UNFCCC), the Non-Legally Binding Instrument (NLBI) on All Types of Forests and other relevant mechanisms.
2. China has been actively helping some developing countries in protecting and sustainably developing forest resources. As one of the major consuming countries, China attaches great importance to the forest resource management of wood-producing countries, in particular those exporting wood to China. China provides training to some wood-producing countries in Africa and Oceania and helps them to improve the quality and management of their forest resource managers. China helps neighbouring countries to restore their forest resources and Chinese enterprises are encouraged to promote afforestation and tree planting in Myanmar, Lao PDR and Cambodia to improve local livelihoods, mitigate and avoid the destruction of natural forests.
3. China upholds the principles of deriving mutual benefits from and the sustainable development of global forest resources. Chinese enterprises are required to conduct their harvesting, processing and regeneration activities in strict accordance with the laws and regulations of source countries. Meanwhile, China cooperates with these countries in forest resource protection and cultivation, wildlife protection, forest fire prevention and scientific and technological exchange. The Chinese Government has issued the Guidelines on Sustainable Forest Cultivation outside China by Chinese Enterprises and the Guidelines on Sustainable Forest Management and Utilization outside China by Chinese Enterprises to guide Chinese enterprises to cultivate and use forests according to the tenets of sustainable development.
4. China is strengthening cooperative suppression of illegal logging. For example, it has signed memorandums of understanding (MOUs) on combating illegal logging with Indonesia, the United States and Australia; established a bilateral forum on combating illegal logging and associated trade and actively participated in the regional FLEG processes in Asia, Europe and North Asia, aimed at sharing effective experience in forest resource management and advancing global forest resource protection and management. Meanwhile, China is also conducting dialogue on cooperation to combat illegal logging, strengthening forest conservation and relevant fields with the European Union (EU), the United Kingdom, Australia, the Russian Federation and Japan. China also organized the EU-China Conference on Forest Law Enforcement and Governance from 19 to 20 September 2007 in Beijing.

Greater attention to cooperation with international organizations, NGOs and enterprises

Currently, the State Forest Administration is effectively cooperating with the Food and Agriculture Organization of the United Nations (FAO), the International Tropical Timber

Organization (ITTO), the World Conservation Union (IUCN), The Nature Conservancy (TNC), the Worldwide Fund for Nature (WWF) and Forest Trends in actively supporting NGO efforts in combating illegal logging and associated trade. Meanwhile, enterprises as the direct players in wood production and management, play a very important role in combating illegal logging and trade. China has established an information communication platform with major Chinese forest product enterprises. Through communication and extension, China will raise enterprise awareness of the severity of illegal logging and promote further cooperation in green procurement and deterring illegal logging. China has also formulated rules to regulate wood production and trading behaviour.

Comments and conclusion

Countries of different economic development levels have different demands on forests. An appropriate solution to the gulf between economic development and ecological improvement is forest resource protection and deterring illegal logging and associated trade. In other words, a balance should be found between economic development and ecological and environmental protection that will be acceptable to all sides.

China will continue to carry out technology transfer, personnel training, community development and other activities with wood-producing countries, in particular in developing countries, and adopt effective measures to help them enhance forest resource management and the livelihoods of community residents.

China will continue to extend cooperation and communication with wood-consuming countries in various ways, e.g., the U.S.-China Strategic and Economic Dialogue, the EU-China Bilateral Coordination Mechanism on FLEG and the China-Japan High-level Economic Dialogue, in order to create a stable international trading environment for forest products and prevent illegal logging issues from being obstacles to normal trading.

On the basis of bilateral and multilateral cooperation and exchange, China will try to evolve a solution for the joint verification and mutual recognition of wood legality that is in line with the de facto situations of all countries, and especially a solution that is acceptable for all developing countries. China is researching a simple but operational wood legality verification system with low cost, i.e., to establish an international joint wood legality verification system similar to CITES with certificates of wood legality issued by forestry authorities of each country, in order to suppress illegal logging and associated trade and safeguard the sustainable development of global forest resources.

Forest law enforcement and governance in Fiji

Eliki Senivasa¹

Summary

Forest law enforcement is an integral function of the Forestry Department in Fiji, which is tasked with regulating and facilitating the development of the forest sector. Fiji's small size and isolation from a large landmass have positively contributed to the low level of illegitimate forest operations and trade. However, this does not mean that Fiji is free from illegal forest activities as there are erratic records of illegitimate logging operations and breaches of the forest legislation. Most, if not all of these illegal activities were dealt with under civil charges and hardly any case was ever referred for prosecution. Nevertheless, there is a need to strengthen the involvement of other enforcement agencies, especially the police, in the monitoring of illegitimate operators, especially during the transportation of forest commodities. This is becoming essential given the limited resources and capacity within the Forestry Department as well as the strategic network and location of police operations. Also important is the need to encompass general good governance and, more crucially, in building the capacity of resource owners as the first line of defense and enforcement. It is imperative for them to develop a logical framework for regular monitoring, surveillance, networking and reporting of illegal forest activities within their localities, especially as most of the illegal forest operations indicate cohesion between certain resource owners with outside parties without the approval of their counterparts.

Thematic elements

Enabling conditions

Legislative and regulatory framework

Forest Decree, 1992: The first Forest Policy for Fiji was approved by the Legislative Assembly in 1950. Subsequently, the Forest Act was endorsed in 1953 to give legal weight to this policy. The Forest Act was reviewed in 1990 and replaced by the Forest Decree in 1992, which simplified, clarified and updated the former legislation; it takes into account the need for sustainable forest management and changes in the policy environment. This legislation is currently under review to provide legal teeth for other enforcement tools such as the National Code of Harvesting Practices (NCHP).

National Forest Policy, 2007: The National Forest Policy was reviewed and endorsed in 2007 following a series of public consultations; it is based on macroeconomic,

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environmental and social issues. The policy seeks to ensure that sustainable forest management practices in Fiji conform to the world standard.

National Forest Program, 2010-2012: Fiji's National Forest Program was launched recently. It is an institutional arrangement that establishes effective high-level cross-sectoral collaboration with regard to facilitating political endorsement, giving rise to a shared vision for the future. The new direction is guided by the principles of conservation, management and restoration of natural resources.

National Code of Harvesting Practice, 1990: This code prescribes desirable practices aimed at protecting the forest environment, its assets and its users, while allowing the execution of economically viable operations within acceptable safety standards. The code specifies operational details concerning logging plans; construction of roads, skid trails and landings; protection of watercourses; equipment; and safety and training. The code is currently under review to incorporate silvicultural and reduced impact logging standards. It also aims to conform to the Rural Land Use Policy, 2002 and the Environment Management Act, 2005.

Rural Land Use Policy, 2002: This land-use policy was developed to guide the sustainable development of land resources. The policy addresses critical issues such as the expansion of commercial cropping on to marginal lands, lack of land conservation measures for areas with fragile soils, burning of grasslands and rapidly increasing deforestation, all fuelled by a growing population and commercialization.

Environment Management Act, 2005: This act was formulated for the protection of natural resources, for the stewardship of development projects, waste management and pollution control and for supporting the activities of the National Environmental Council.

Institutional framework and enforcement agencies

Forestry Department: The Forestry Department regulates and monitors harvesting in natural and plantation forests, including the processing and export of forest products from Fiji as well as import of forest products into Fiji.

Fiji police force: As an enforcement agency, the police force automatically qualifies to enforce the Forest Act in connection with any suspicious activities. It has the power to confiscate forest contraband, enter any plot of land without a warrant and lay charges for any criminal offences committed.

Land Transport Authority: As the regulatory authority for land transport, it is also an important component of law enforcement, especially in the registration, testing and monitoring of machinery used in forest operations.

Native Land Trust Board (supportive role): The board, as custodian of indigenous resource owners, has the power to enforce confiscation and repossess any suspicious removal of forest produce. It also has the authority to refuse entry of any suspicious company to indigenous custodial territory. Almost 85 percent of Fiji's forest resources are communally owned and fall under the board's jurisdiction.

Forest owners (supportive role): As resource owners, they are at the front line for the protection of their resources. They have use rights and can refuse entry to any suspicious party. Prior collective approval of the resource owners is mandatory for all legitimate forest operations.

Institutional capacity

Staffing: It is estimated that over 5 000 people are employed in the forestry sector. There are 56 persons directly involved with harvesting activities in the Forestry Department who basically oversee forest law enforcement. The core function includes licensing of all forest operations, regulating and enforcing forest laws and monitoring compliance. Another 30 people provide administrative support services.

Budget: The current operational budget is around F\$1 million. This accounts for the national licensing and regulatory function in the three divisional forest offices. Annual capital funding of F\$100 000 is specifically provided for the logging, monitoring and evaluation project, which provides independent monitoring of the implementation of the NCHP, specifically addressing safe and proper logging practices.

General development context

Within the general development context, Fiji's standing is indicated by the following levels and indexes:

- Poverty Index = 21.2 percent.
- Literacy level = 98.5 percent.
- Corruption level = ranked 55 out of 158 countries.
- Media Freedom Index = ranked 152 out of 175 nations.
- Human Development Index = ranked 108 out of 182 nations.

Fiji is also signatory to the Convention against Transnational Organized Crime.

Prevention strategies

Timber theft prevention plan

There is no timber theft prevention plan *per se* except for the ongoing enforcement of the Forest Decree via licensing and regulatory procedures as well as enforcement of the NCHP. Land tenureship in Fiji, whereby most resources are owned by indigenous people, somewhat cushions the incidence of theft due to the strong custodianship of resources and exclusion of use by outsiders. In fact, the greatest risks usually emanate from certain customary owners who collude with outside partners to defraud the traditional system.

Community awareness programme

This has been an integral component of forestry work, especially in building local capacity for the sustainable management of forest resources, especially as most resources are owned by communities. Part of the work is to identify root problems in the community and to

prepare collaborative action plans with communities to address issues that concern them. The Forestry Department also provides skills' training and facilitates financial support for community-based initiatives.

Detection strategies

Monitoring of forest crime trends, community reports and surprise inspections

Surprise inspections and verification of reported cases from communities is basically the strategy that is followed.

Physical and technical surveillance and timber-tracking systems

Monitoring and surveillance is ongoing and log tracking is monitored through log truck passes. These passes are mandatory for all vehicles transporting logs within the country. They define the point of travel, the volumes and the owners.

Intelligence sources and information networks as well as reward systems

Fiji lacks such sources and networks as well as reward systems.

Physical and financial audit requirements

No such auditing requirements exist to date.

Suppression strategies

Forest crime information management systems

No such information systems exist even though there is a timber revenue system (TRS). The current TRS may have to be expanded to cater for multiple uses such as capturing forest crime information.

Access to records on criminal forest offences

There is limited access to records of criminal forest offences at the moment.

Adequacy and effectiveness of administrative and criminal penalties

Obviously there is a strong need to adequately administer penalties for illegal operations. As mentioned above, most cases are addressed within the Forestry Department systems without reaching court prosecution. The options for defaulters are to either accept the charges handed out by the Forestry Department or take the case for prosecution. In almost all the known cases the defaulters opt for out-of-court settlement.

Clarifying the role and responsibilities of the military, police and other public agencies

Recent networking among the different enforcement agencies has improved awareness on, and participation in, the suppression of criminal activities. However this needs to be strengthened to clarify level of involvement as well as the legal processes that must be followed.

Investigation strategies

Investigation planning and mentoring programmes for forest law enforcement officers

A negligible level of investigation planning is carried out; however, a mentoring programme almost always covers the enforcement of good harvesting practices as stipulated under the NCHP.

Adequate legal knowledge of forest law enforcement officers

This is a grey area regarding law enforcement in Fiji; the inadequacy of legal knowledge is perhaps an area that must be strengthened. Similarly there has been laxity in the *modus operandi* for reporting as well as interviewing and witness gathering.

Prosecution strategies

This is always a grey area for implementation in Fiji.

Recovery strategies

Seizure and recovery of stolen assets

On this particular issue, the local networking system has been adequately recovering illegally removed products. All seizures to date have been more or less coordinated and enforced by the police, who seize the items and notify the Forestry Department for settlement of compensation and compound charges.

Disposal of recovered assets or proceeds

Upon settlement of charges, the assets are then released and proceeds channeled to the government treasury as well as to original owners of the seized produce.

Process for addressing forest-related money laundering

Forest-related money laundering is not seen as an issue so far in Fiji.

Forest governance (non-law enforcement)

Forest governance framework

Fiji used a multistakeholder dialogue as the framework for forest governance reform initially in developing its National Forest Policy, Forest Certification Standard, NCHP and lately the development of its National Forest Program. This participatory dialogue framework paves the way for the fulfillment of good governance, ownership and support.

Equitable treatment and participation of all stakeholders

The governance process has been all-inclusive since the development of the 2007 National Forest Policy to the formulation of the National Forest Program for 2010-2012.

Ability of landowners to receive a fair return

There are always some levels of suspicion about the equitable distribution of benefits by resource owners compared to that by industries. Individualism and laxity in cohesive submission and representation is one of the main drawbacks as most landowners do not always make well-informed decisions over their resources.

Monitoring and reporting strategies

Successful and failed prosecution

No data available

Production, consumption and trade flows in timber and timber products

Approximately 600 000 m³ of wood flow into the mainstream production line, of which 375 394 m³ consist of sawntimber and 237 279 m³ constitute the wood chip production system. Whilst all the processed chips are exported exclusively to the Japanese market, only 13 percent of the sawntimber reaches the overseas market whilst the remaining 87 percent is consumed locally. Table 1 indicates the extent of forest land and its various types.

Table 1. Extent of forest land and types

Forest type	Area (ha)	%
Multiple-use natural forest	807 153	45.7
Protection natural forest	92 075	5.2
Hardwood plantation	60 448	3.4
Softwood plantation	93,523	5.3
Coconut plantation	27,137	1.5
Mangrove	38 742	2.2
Non-forest area	629 834	35.6
Inland water	19 207	1.1
Total	1 768 123	

Contribution of forestry to GDP and employment

Forestry contributed around 5 percent of foreign exchange earnings in 2008 and the export value was F\$63.7 million. It is estimated that over 5 000 people are employed in the forestry sector. The sector has contributed positively to the rural sector in terms of infrastructural development, micro enterprises and village-based business ventures, housing development and education.

Comments and conclusion

With a limited economic base, Fiji will always try to maximize the benefits from its forest resources in terms of licensing fees and corporate taxes. Illegitimate forest operations drain government revenue and negatively affect the timber industry in general. A better coordinated network and clear allocation of responsibilities between respective law enforcement agencies will go a long way in dealing with illegal timber operators. Good governance at all levels will be vital too in preventing theft. Fiji needs to strengthen FLEG through better synergy of the existing legal frameworks, awareness and empowerment among its major stakeholders and relevant law enforcement agencies.

Forest law enforcement and governance in India

A.K. Johari¹

Introduction

The earliest records of indigenous forest management in India are those found in the ancient text *Atharvaveda* (twelfth century BCE²). More elaborate descriptions of the principle of forest management are enshrined in the *Arthashastra* of Kautilya (300 BCE). The ruler Ashoka (273-231 BCE) is considered to be the first ruler in history to advocate conservation measures for wildlife.

The foundations of present day forest management were laid in 1864 with the appointment of Dr Dietrich Brandis as Inspector-General of Forests of India.

Policy

The pre-independence Forest Policy of 1894 was revised by the National Forest Policy (NFP) in 1952. It was a production-oriented policy but it considered bringing 33 percent of the country's area under forest or tree cover, self-sustenance for meeting local and national needs, forestry extension and wildlife conservation. This policy was replaced by the NFP, 1988 which is a conservation-oriented policy that lays emphasis on conservation of forests, meeting local people's needs and encouraging their involvement in protection and management of forests. It also set a national objective of expanding forest and tree cover to 33 percent of the geographical area of the country.

Legislation

The first Indian Forest Act (IFA) was promulgated in 1865. It was amended in 1878 and since then forests have been constituted into 'reserved forests' and 'protected forests'. The next major amendment was made in 1927 to strengthen the protection of reserved forests.

The second significant legislation was the Wildlife (Protection) Act 1972, amended in 1982, 1986, 1993, 2003 and 2006. It provided for the creation of national parks, wildlife sanctuaries, conservation and community reserves and establishment of the National Tiger Conservation Authority and Central Zoo Authority among others.

The Forest (Conservation) Act, 1980 regulates diversion of forest lands for non-forestry purposes. It provides for mandatory compensation for afforestation and realization of the net present value for any diversion of forest lands.

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² Before the Common Era.

Other significant legislations include the Environment (Protection) Act, 1986; the Foreign Trade (Development & Regulation) Act, 1992; and the Biological Diversity Act, 2002.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Rights) Act, 2006 was promulgated with a view to conferring rights on people who have been associated for a long time with forests but were ignored at the time of constituting reserved forests.

Enforcement

The Union of India is represented by 35 states and union territories (UTs). Forests and wildlife were a 'state subject' until 1977 when they were brought under the 'Concurrent List' for the purpose of having a uniform policy and legislative framework. In the same year the "protection and improvement of the environment and safeguarding the forests and wildlife of the country" was made one of the main thrusts of state policy.

As forest lands are the jurisdiction of state/UT governments, the primary responsibility for safeguarding forests and wildlife and their management is vested in federal governments. In this context, states have their own enabling acts. The provisions of these acts and the tenets of the state forest policies have to be consonant with the basic theme of the central policy and acts.

State forest departments implement the policies and programmes for forest and wildlife management in accordance with the prescriptions of working plans and management plans respectively. Working plans are prepared by the state government concerned and approved by the central government.

Authorized officers of state or central governments can address violations of provisions of the acts in force, draw up offence reports, hear the cases, impose fines or forward cases to civil and criminal courts of law for trial. Special acts/specific provisions of the state forest acts, for example the Karnataka Forest Act, 1963 confer special powers on forest officers for the prosecution of forest crimes (for the Karnataka Act, crimes related to the exploitation of sandalwood).

Forest officers who fail to carry out their duties resulting in loss of or damage to forests or wildlife resources are subject to disciplinary proceedings, trial and conviction if found guilty.

A number of NGOs, voluntary groups and environmentally aware citizens serve as the eyes and ears of civil society for ensuring the strict implementation of policies and programmes aimed at conservation of forests and wildlife and for protecting the rights of economically and socially disadvantaged people. They also analyse government initiatives, policies, programmes and legislation for their soundness in meeting the goals of the sustainable management of forestry resources and securing livelihood opportunities for forest-dependent communities.

The courts of law hear matters related to alleged violations of the acts in force. The Supreme Court of India has taken up issues of significance in forestry and wildlife matters on its own

initiative as well. A Central Empowered Committee (CEC) of the Supreme Court assists the court in ruling on matters pertaining to forests and wildlife in the country.

Joint Forest Management (JFM) is a unique feature of forest management in India. The local communities share responsibilities with the forest departments for designing management strategies and executing government-sponsored programmes for protection and conservation of forests and wildlife. In return for their services, people receive direct benefits from the intermediate and final felling of these forests. One of the co-benefits of community involvement in forest management is the improved protection of forests, particularly in connection with theft and forest fires as well as reduction in the occurrence of forest crimes.

Contentious issues

In a country as large and highly populated as India, it is inevitable that contentious issues will arise *vis-à-vis* environmental management and promoting the conservation of biodiversity. Some of the most significant problems are listed below.

- About 300 million people are dependent on forests for their livelihood.
- Most of the cattle population grazes freely in the forests.
- Forests meet over 80 percent of the energy needs of villages inside or bordering them (thus leading to degradation of the resource if collection of fuelwood is not controlled).
- Demand for timber and non-wood forest products far outweighs sustainable supplies. Most removals are unrecorded.
- Forest productivity is declining and plantations are not able to bridge the gap between demand and supply.
- Habitat fragmentation and forest encroachment are leading to more frequent conflict between humans and wild animals that induces loss of life, damage to property and retaliatory killing of wild animals.
- International trade in animal and rare plant products exerts enormous pressure on their natural populations, leading to degradation and even extinction.
- Stringent laws for the conservation of forests and wildlife impede development, entail additional costs and create political discontent.
- The economic benefits of conservation are not reaching catchment populations; areas with rich forest resources overlap with poverty-stricken and undeveloped areas.
- There is a gross underestimation of the contribution of the forestry sector to the GDP. Tangible benefits go unrecorded and intangible benefits are ignored. As a result, funds allocated to the forestry sector do not mirror its significance.

Table 1 captures important statistics related to the above contexts.

Table 1. India: forest-related statistics

General	
Geographical area	328.7 million ha
Population	1 146 million
Livestock population	485 million
Land use	Agriculture (51%) forest and trees (25%)
Forests	
Forest area	76.962 million ha (23.41 %)
Forest cover	67.708 million ha (20.60%)
Tree cover	9.166 million ha (2.79%)
Growing stock	6 218 million m ³
Forest types	<ul style="list-style-type: none"> ■ Tropical dry deciduous: 38% ■ Tropical moist deciduous: 30% ■ Tropical thorn forests: 6% ■ Tropical wet evergreen forests: 5.8%
Per capita forest area	0.067 ha
Carbon stock	6 662 million tonnes
Annual carbon increment	38 million tonnes = 138 million tonnes CO ₂
Biological diversity	One of 12 mega biodiversity countries worldwide
Floral species	47 000
Endemic faunal species	90 000
Forest management	
Reserved forests	41.902 million ha (55%)
Protected forests	21.661 million ha (28%)
Unclassed forests	13.399 million ha (17%)
Protected area network	
National parks	99
Wildlife sanctuaries	515
Conservation reserves	4
Project Tiger reserves	38
Elephant reserves	26
Biosphere reserves	14
Forests under Joint Forest Management	
Number of JFM committees	1 06 000
Number of people involved	22 million
Forest area under JFM	22 million ha

Roadmap for improved governance

To improve forest law enforcement and governance in India, the following measures are suggested.

- Upgrading national forest administration by strengthening the frontline force, provision of new technology for reconnaissance and reporting, infrastructure development and capacity building of forestry personnel.
- Creation of inviolate core areas in the tiger reserves.
- Encouraging plantation activities through special Compensatory Afforestation Fund Management and Planning Authority funds.
- Restocking and regeneration of 6 million hectares of degraded forests under the Green India Mission, a component of the National Action Plan for Climate Change.
- Establishment of a National Green Tribunal for expediting court matters related to environmental protection and conservation of forests.

Forest law enforcement and governance in Indonesia

Pipin Permadi¹ and Lana Sari²

Introduction

Illegal logging and associated trade continue to pose problems for the forestry sector in Indonesia by generating considerable financial loss as well as environmental degradation. Therefore, the Indonesian Government is paying special attention to addressing these issues.

Soon after the reformation era illegal logging increased in Indonesia, but through major government campaigns and strong coordination among related institutions it decreased significantly to the extent that in recent years incidences have been far fewer than before. The Ministry of Forestry cannot eradicate illegal logging by itself, but with more intersectoral coordination, effective law enforcement and governance can take place.

Enabling conditions

With regard to intersectoral coordination to combat illegal logging as instructed in Presidential Decree No. 4/2005, 18 ministerial institutions³ are involved.

The government has furnished regulations and strategic policies to facilitate thrusts and build capacity, some of which are listed below:

1. Regulations:
 - a. Presidential Decree No. 4/2005 which instructs 18 ministerial institutions to combat illegal logging.
 - b. Environmental Protection and Management Act No. 32 Year 2009.
 - c. Forestry Act No. 41 Year 1999.
 - d. Local Government Law No. 22/1999 revised by No. 32/2004 regarding local government.
 - e. Land Use Act No. 24 Year 1999 as revised by Act No. 26 Year 2007.
 - f. Government Regulation No. 45 Year 2004 revised to Government Regulation No. 60 Year 2009 regarding forest protection.
 - g. Government Regulation No. 22 Year 2000 as revised by No. 38/2007 regarding local government administration (33 provinces and around 400 regencies/cities).

¹ Forest Development and Research Agency, Ministry of Forestry.

² Directorate of Investigation and Forest Protection, Ministry of Forestry.

³ Coordinating Ministry on Politics, Law and Security, Ministry of Forestry, Ministry of Finance, Ministry of Domestic Affairs, Ministry of Law and Human Rights, Ministry of Foreign Affairs, Ministry of Defense, Ministry of Trade, Ministry of Industry, Ministry of Environment, Ministry of Transmigration, Ministry of Transportation, General Attorney, Indonesian Police Force, Indonesian Armed Forces, Indonesian Intelligence Agency, Governors, Heads of Districts.

2. Strategic policies:

- a. Combating illegal logging as the first priority for the Ministry of Forestry's National Planning Programme (2005-2009).
- b. Promoting sustainable forest management practices by providing incentives for concessionaires in Indonesia.
- c. Enhancing capacity building of forest rangers and forest investigators.
- d. Improving forest infrastructure such as roads and communications to support forest protection.
- e. Improving intelligence, suppressive and judicial measures for forest crimes.
- f. Developing networks and cooperation among stakeholders within and outside the country.

Regarding human resources and facilities, suppression of forest crimes is carried out by 7 519 forest rangers, 849 special rangers and 1 566 civil service investigators on land and waterbodies.

Prevention

An early warning system is important in combating illegal logging and detection efforts can be assisted by communities living in and around forests. In the context of prevention, awareness raising and forestry extension approaches have been used for indigenous forest communities. Certification is another instrument for governing forest management (Table 1).

Table 1. Status of forest certification in Indonesia

Year	Mandatory certified management units	Voluntary certified management units
2002	3	
2003	8	
2004	28	
2005	43	16
2006	21	13
2007	40	19
Total	143	48

Sustainable forest management in relation to balancing timber supply and demand is also enhanced by:

1. The Timber Administration System (Ministerial Decree No. P.55 Year 2006 for Natural Forests and Ministerial Decree No. P.51 Year 2006 for Private Forests), amended to Ministerial Decree No. P.8 Year 2009 for the Timber Administration System Online (bar code system).
2. The Timber Tracking System Online (started on 1 September 2009) – <http://puhh.dephut.info> – for monitoring trees cut and taxes paid by timber companies.
3. The Timber Legality Verification System (Ministerial Decree No. P.38 Year 2009 and Director General Decree No. P.6 Year 2009).

- 15 independent auditors for verifying and certifying forest concessions and timber industries have been accredited by the National Accreditation Commission.

Detection

The Ministry of Forestry has designed a Case Tracking Database to systematically record, track and manage information on all forest crimes from their initial reporting to their final resolution. This database records data and information about illegal logging cases under inquiry, ongoing investigations, arrests, recoveries, prosecutions and fines. In 2009, the Directorate of Investigation and Forest Protection also built the SMS Centre as public service to acquire initial reports from local people about forest crimes.

Suppression and investigation

Efforts in suppression and investigation of illegal logging have been stepped up by the government since 2009, resulting in a significant decrease in cases of 77.6 percent over five years. Investigative procedures by civil service investigators achieved a 63.3 percent success rate in bringing cases to court in 2008. Figure 1 shows incidences of forest law infringements between 2005 and 2009.

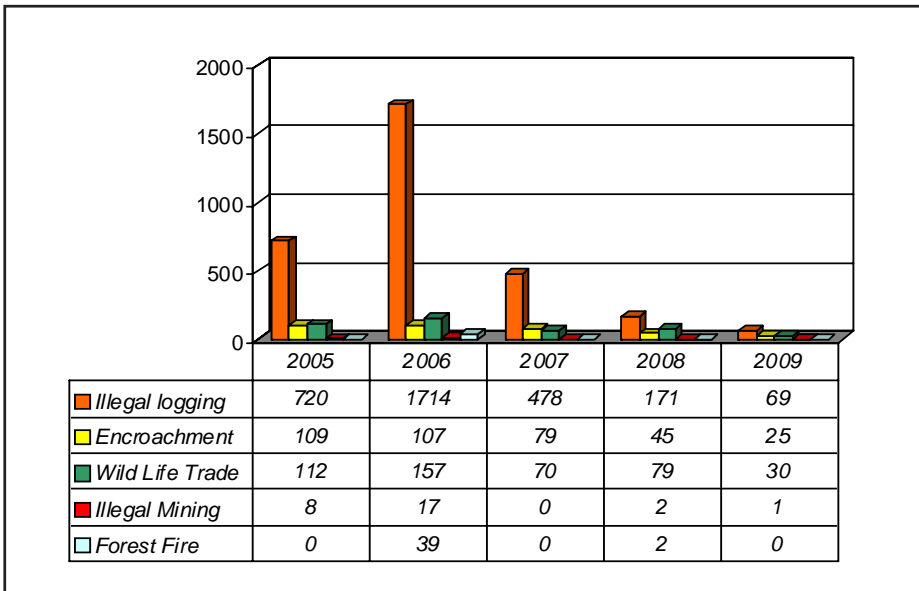


Figure 1. Incidences of forest law infringements, 2005 - 2009

Prosecution

Prosecution of forest crimes has also been tackled seriously by the government and is a good indicator of its commitment to preventing illegal logging. Figure 2 illustrates trends from 2005 to 2009.

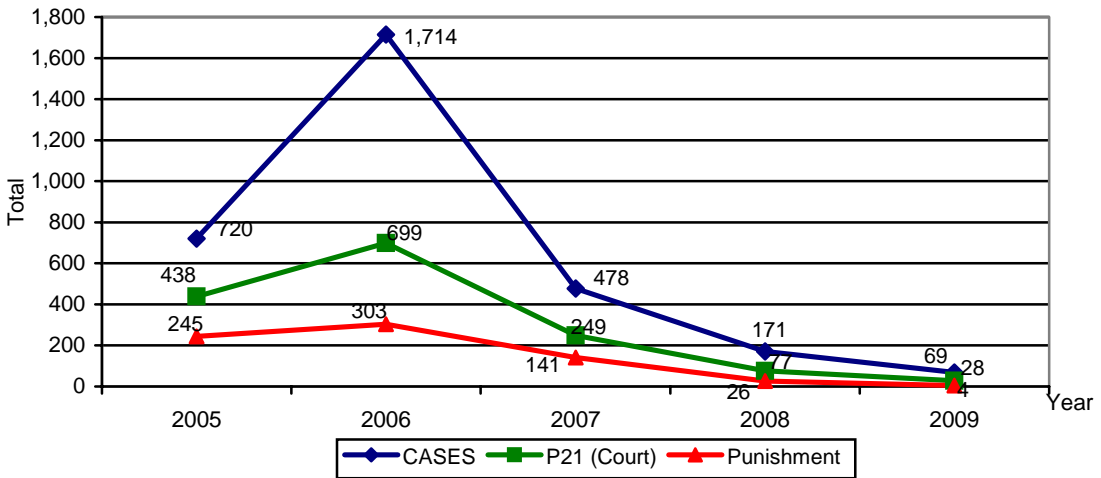


Figure 2. Logging violations and prosecutions, 2005-2009

Recovery

Juxtaposing successes in suppressing and prosecuting forest crimes, the government has received notable revenue from the sale of contraband at timber auctions (Table 2).

Table 2. Revenue from timber auctions of stolen assets (2005-2009)

Year	Timber sales (IDR)
2005	50 871 912 773
2006	30 800 170 239
2007	12 791 405 359
2008	16 638 430 905
2009*	234 908 863*
Total	111 336 828 139

Note: US\$1.00 = IDR9 202.05 (March 2010). *2009 data only for nine months (January to September)

The Indonesian Government requires Indonesian logging companies to improve their performance by developing a code of conduct for all professional people working in the forest sector and issues a certificate to qualified forest professionals (SLPHI). To date, 103 forest concession companies, which cover more than 5 million hectares, have been certified by the independent assessor.

Comments and conclusion

Illegal logging in Indonesia causes major financial losses as well as environmental degradation. The government, through strong coordination with 18 institutions related to suppression of forest crimes, has striven to redress the situation resulting in a 77.6 percent reduction of forest violations within the last five years.

Forest law enforcement and governance in Lao PDR

Department of Forest Inspection, Lao PDR

Summary

Lao PDR is in the early stages of developing a forest law enforcement and governance (FLEG) strategy or action plan. The introduction of the revised Forest Law and Wildlife and Aquatic Life Law in 2008 and regulations on the harvesting, processing and export of wood products provide legislative support for wider enforcement and governance measures that need to be taken to meet international requirements. Lao PDR is a timber-exporting country, traditionally exporting raw logs and semi-finished products to neighbouring countries (People's Republic of China, Viet Nam, Thailand) for domestic use or re-export to markets where legal verification of wood products is weak. In 2001, Lao PDR adopted a moratorium on the export of raw logs, but this has not resulted in a complete ban due to case-by-case arrangements under legal exceptions to harvest and export timber generated from infrastructure projects, such as hydropower dams and establishment of e-transmission lines.

As part of recent legal reforms, a decree enacted in 2008 created the Department of Forest Inspection (DOFI) within the Ministry of Agriculture and Forestry (MAF) with specific responsibilities over issues of law enforcement and governance. The establishment of the department is still progressing and the transfer of responsibilities at different levels has to be completed, but this new department along with the new legislation shall lay the foundation for independent verification mechanisms to improve FLEG.

From these foundations the aim is to build capacity to implement stronger enforcement and governance. Moreover, the DOFI has gained from participation in the Association of Southeast Asian Nations (ASEAN) regional meetings on FLEG and has taken initial steps to implement the ASEAN FLEG Action Plan 2008-2015. This process is really only starting within government agencies currently and there is a strong need for the new policies to be understood more widely within the sector.

Thematic elements

Enabling conditions

There has been tremendous development on the legal framework in the forestry sector in Lao PDR over the past decade. The issue is not a lack of legislation, but more the capacity to implement the policies in a developing political system. There has been a dramatic increase in the level of political awareness and recognition at the policy level that natural resources and forestry in particular need to be addressed, especially at the national level, but steps need to be taken to raise awareness and strengthen capacity at the provincial level to utilize the FLEG process and implement forestry sector reform.

A national development strategy that will form part of the Lao 5 Year Development Plan 2011-2015 will place the forest and natural resource system among the priority national goals. The plan will be consistent with the Lao National Forest Strategy 2020 'the FS 2020' and reflect those priorities in the annual and mid-term work plans of the forestry-related ministries and stakeholders at central and local levels. Adoption of these strategies into the work plans of these agencies especially related to forest governance, enforcement and implementation of legal reforms aims to improve regional and international collaboration for FLEG and the entire forestry sector.

The National 5 Year Plan and the FS 2020 recognize the importance of the principles of FLEG, especially with good governance as a key component of natural resource management. This has led to re-identification of the forest into three categories: Production Forest, Protection Forest and Conservation Forest. The goal is to restore forest cover to 70 percent of the land area by 2020 with national level strategies and action plans to reflect this objective.

For much of Asia, the drives for implementation of FLEG and FLEGT (FLEG and Trade) are market related and due to regulations from downstream markets that are more sensitive to legal and environmental conditions in the forest. The challenge for Lao PDR, primarily a source country for raw materials to exporting countries in the region, is how to find incentives to improve FLEG and forest management. Most timber harvested in Lao PDR over the last few years has come from infrastructure projects (over 60 percent harvested in 2008), which is an unsustainable yield. Sustainable timber from managed production forest areas is often mixed with 'non-source' wood. The best way to address this is going to come from both the supply and the demand side at the same time. There is a need to address the traceability and management of infrastructure timber and coordination with other ASEAN countries who will begin to require verification of legal sources or chain of custody. In terms of FLEG these infrastructure clearance operations may work best with chain-of-custody systems and legal verification that use different models to those currently being looked at.

In terms of the institutional framework, the DOFI has the mandate for overseeing the implementation of The Forestry Law by executing regulations and governance issues. The department was created in 2008 and over the last 12 months it has drafted interim terms of reference; it is updating them with a view to ensuring that the requirements and responsibilities of the different divisions and units at central and provincial levels cover all enforcement and governance activities. This is both an internal process and also one that involves a wide range of other agencies. Within the last few months the Economic Police Department has created a new Division of Natural Resource Crime that covers many of the same areas as the DOFI. Within the Department of Forestry, the Division of Forest Rehabilitation and Conservation covers many of the responsibilities for governance and enforcement in Protected Forest Areas (PFAs) and National Biodiversity Conservation Areas (NBCAs). So with many agencies with responsibilities in the same sector there is the potential for considerable overlap. However, as all of these agencies are relatively short of resources (human and capital) it is possible that enforcement activities could be reduced because of the sense that someone else will cover the particular responsibility.

In January 2009, a number of agencies working with the DOFI, Economic Police, Ministry of Justice, customs and excise and the military met to discuss the role of the DOFI in the enforcement of the forest and wood-processing sector. This was useful, but highlighted a

major problem in collaboration among these agencies. Despite a detailed aide-mémoire that identified areas for cooperation, it is clear that coordination needs to happen at the local level. The ability to secure capital resources for interagency activities remains an issue.

Lao PDR is in a weak position compared to its ASEAN neighbours regarding implementation of FLEG and FLEGT and the ability to develop a more advanced wood-processing industry for export. Within the region, Lao PDR ranks near the bottom in GDP and literacy. As a landlocked country the opportunities to expand trade have been limited, compounded by high transportation costs and lack of infrastructure. An estimated 80 percent of the population is dependent on forests to some degree for livelihoods. In this context the internal pressures on the forest and the external pressures for development opportunities are somewhat different to other countries. Many of the external pressures increasingly derive from the growing number of foreign investments in land concession and establishment of rubber plantations and other projects. Timber theft and wildlife poaching remain a problem driven by poverty in rural areas and demand from more developed countries.

Prevention

In terms of resource allocation, Lao PDR does not invest much in prevention strategy at this stage. Although the DOFI has more than 300 staff, it still lacks resources. With only a few vehicles, patrols and investigation are limited, mainly being based on responses to information from communities about incidents. At this stage there is no systematic roster of monitoring or auditing of activities. The current objective of the DOFI is to develop an Incident Case Tracking Management System for reports of cases in all 17 provinces to analyse trends and patterns so specific risks can be identified. Thus, efforts and scarce resources can be focused optimally.

Capacity building within the department is a key objective currently and steps are being taken in a number of key areas:

- Conflict mediation: Provincial Offices for Forest Inspection (POFIs), DOFI, DOI and State Inspection.
- Ethical behaviour.
- Report writing.
- Criminal investigation.
- Inspection techniques.
- Surveillance.
- Field craft.
- Personnel health, safety and protection.
- Information technology application.
- Remote sensing and satellite interpretation.
- Community-based resource management.
- Communication and outreach development.

These modules cover the three elements of enforcement: prevention, detection and suppression, but within the overall strategy the objective is to improve the competence and confidence of the enforcement and governance agencies to a point where the risks of being caught and prosecuted rise to a level where it is no longer an option to operate illegally.

In terms of working on the supply/demand and the hardening of the sales and tax systems, these issues are just starting to be analysed. Initiatives are being taken to evolve methodologies for reconciling different aspects of the forestry and economic sectors. Initial meetings have taken place between the Ministry of Finance, State Inspection, MAF and the Ministry of Commerce and Industry (MOIC) to design ways to cross-reference budgets, planning and the true volumes of timber harvested. Meetings are due to take place every three months. It will take some time to get all the procedures in place, but there is increasing recognition of the need to do this. Within the MOIC, the Department of Production and Trade Promotion has a project supporting export competitiveness that is also trying to establish the baseline for the supply/demand balance with a view to understanding what future volumes of timber are likely to meet FLEG requirements.

Detection

The monitoring of forest crime trends has begun with plans to increase this activity as a key part of the DOFI work plan. Currently, the main objective is to ensure the information is gathered and presented in a consistent and uniform manner, especially given that procedures within the provinces remain very independent. Once a database becomes available the identification of trends and the targeting of critical control points will become easier.

The DOFI is heavily dependent on its network of informants because most detection operations are based on prior information. In some areas, there is a formula for calculating the rewards for information that leads to successful detection and confiscation of illegal goods. It works out at around 3 percent of the total value after the costs of prosecuting the case have been deducted.

Within the forest and land-use sector a number of remote sensing and mapping activities are currently ongoing, but as yet the potential for linking them with forest governance operations is very limited. The time lag for communication is a major issue that needs to be addressed. One area where remote sensing data should be linked to rapid response work by enforcement agencies is in fire monitoring and crime tracking. Fire is often used as an encroachment tool by small migrant farmers and by large plantation development operations so accelerating the reaction time to information coming from real-time fire monitoring by remote sensing should be a good possibility.

The main bottleneck for enforcement agencies in Lao PDR is insufficient capital, equipment and resources, especially at the provincial level, where lack of transport means that most activities are based around static checkpoints. Although there has been an increase in the number of successful cases stopping illegal harvest or transport and confiscating illegal timber and vehicles, there is a strong need for more pro-active targeting, mobile capacity and sporadic inspections.

Investigation into the higher levels behind criminal behaviour in the forest sector does not often reach above the low levels of chainsaw operators, truck drivers and the elaborate system of brokers. Investigation and enforcement efforts (including confiscation of cars, firearms and wildlife) do not seem to be a deterrent to intermediaries and criminal elements. There is evidence that the level of success in stopping small high-value timber in small trucks is leading

to some operators now using top-of-the-range Prado and Lexus cars to transport 2-3 m³ of timber at a time.

Most operational work on detection of forest-related crime takes place at the provincial or district level where capacity remains low. There is a strong need to build capacity and provide equipment at the local level to develop systems to conduct enforcement and for financial institutions to become involved in 'know your customer' or politically exposed person (PEP) activities. This mechanism gets governance agencies such as the Ministry of Finance and the State Inspection office involved and is going to lead to forestry information disclosure at the arrogant level and may lay the foundation for wider reconciliation.

Suppression

A common method in timber theft is for small operators or brokers to take extremely valuable species such as rosewood (*Dalbergia latifolia*) in small volumes of less than 1 m³ and feed them into the supply chains of larger operators. The impact of each individual case is quite small, yet the effort to prosecute such a case is time-consuming with less effort to levy fines because the individuals are not in a position to make them effective.

The key objective for suppression is to identify where it can be most effective in the operational chain of criminal activities. In terms of numbers it would be possible to put much energy and effort into many small cases, but the impact would be very low. For a strategy of targeting the PEP lobby group and those operating at the higher level a department has to be very confident and strong. Without a high level of support in enforcement, the numerous investments in patrol or enforcement activities may just be moving the trade along a border or down a road rather than addressing the 'demand' or reducing illegal volumes. There needs to be improvement at the provincial and district levels in understanding and applying the regulations in the forestry sector, especially regarding approval for land allocation and forest practices in areas not under a management plan. Also, an effort shall be made to improve the following factors in suppression of forest crimes:

- Forest crime information management systems;
- Access to records on criminal forest offences;
- Adequacy and effectiveness of administrative and criminal penalties; and
- Clarifying the roles and responsibilities of the military, police and other public security agencies.

Investigation

The DOFI still needs to develop standard operating procedures for gathering information and producing intelligence. There is currently no uniform system in place for recording or tracking data and case numbers. A basic investigation training course is being developed for DOFI personnel because most DOFI staff have experience in forestry management but little expertise in law enforcement. Likewise, the legal knowledge of forest law enforcement officers is generally weak, especially in the provinces.

The division of roles between the DOFI and POFIs is still being clarified. Currently, the DOFI largely strengthens the work of POFIs, providing the central authority to POFIs when

required. However, the DOFI often simply replicates the work of POFIs; as a result the DOFI aims to take on a more strategic role in the investigation process as it should be acting as a monitoring agency. It will take some time before the DOFI gains the credibility and political authority to conduct sufficient enforcement in the field.

As discussed above, the DOFI is heavily dependent on its network of informal informants who are rewarded in cash or goods for information that leads to the successful confiscation of illegal goods.

The DOFI is working to clarify its role with respect to administration over land rights issues (for example land claims within NBCAs). Discussions have just begun regarding the implementation of operational activities during the logging season, including inspections in PFAs and NBCAs and at strategically located road checkpoints, as well as routine and unannounced inspections of primary wood-processing facilities in proximity to the selected PFAs and NBCAs. To further improve its efficiency, the DOFI has determined to focus on three 'red flag' areas: production forest; wood-processing operations; and NBCAs.

Prosecution

Lao criminal and forestry legislation outlines a clear process for the collection of evidence by the investigation agency and for submission to the prosecution agency. In reality, the vast majority of cases are settled out of court with fines and citations. Willingness to prosecute violators appears to diminish as illegal logs move further away from forests and as volumes and value increase. In other words, prosecutors are more reluctant to target wealthy and influential individuals, in fact according to the DOFI's 2008 report – *Results of forest and wildlife laws enforcement data collection on case investigation about forest violation in Khammouane, Savannakhet, Champasack and Louangnamtha provinces* – some directors/deputy directors at the provincial level of forest inspection do not feel they have the authority to obstruct offenders.

A 2009 sample of forest case-load data collected in three key provinces indicates that the types and volumes of cases vary greatly from province to province and thus the needs of prosecutorial departments in each province should be evaluated separately to determine how best to fill in gaps and increase the capacity of judges and prosecutors (Table 1).

Recovery

Lao forestry and criminal legislation sufficiently outline the authority and procedures for the confiscation and recovery of state property seized from violators of the forestry law. There are recognized operating procedures, although these may vary between provinces. There is a need to provide guidelines and training to seek a more uniform system and to involve other actors in the judicial process as the courts may be able to levy a larger fine and deterrents than the administrative fines administered by the DOFI in the negotiation process.

Forest governance (non-law enforcement)

Law enforcement is a key element of the FLEG agenda. However, other governance issues such as stakeholder participation and economic governance are also important. In Lao PDR

there is a general need to continue to develop capacity building and training at all levels of governance and management systems in the forestry sector, especially given the recent formation of the DOFI and POFI.

It is unclear which agencies have responsibility for awarding licences, and monitoring and controlling the process. There is no transparency in the roles of central provincial and district authorities. Also, the DOFI's role as an enforcement agency is as yet unclear both within the DOFI and among outsiders. Furthermore, the DOFI needs to meet regularly with representatives of the MOIC, customs and excise and the Economic Police to further understand how to conduct enforcement along the chain of custody.

In May 2007, the prime minister announced an indefinite moratorium on large land concessions; however, this has continually been adapted and has yet to be fully implemented. Some of the drivers of encroachment in Lao PDR include: weaknesses in planning of land concession projects; weaknesses in regulation of large-scale infrastructure or land concession projects; and lack of clarity over agencies' responsibilities.

Monitoring and reporting

Table 1. Sample case loads of three provinces from January to October 2009

Province	Total cases	Cases completed	Timber seized (m ³)	Vehicles seized	NWFPs seized (kg)	Wildlife seized (kg)
Khammouane	84	53	1 009 858	97	2 500	151
Savannakhet	118	34	5 811 672	35		3 147
Salavane	23	16	4 053 451			11

Table 1 shows the number of forest crimes in three provinces from January to October 2009. It should be noted that as the DOFI becomes more established its ability to detect forest crimes has increased; however, the capacity to enforce the law and reduce crime is not necessarily keeping pace. One of the objectives emerging from the FLEG process will be more rapid collection of data at the central level.

Comments and conclusions

Over the 18 months the DOFI has been established the objective has been to develop the capacity to prevent, detect and suppress forest crime. The creation of an independent government agency to do this has been challenging and identifying the new roles and responsibilities has taken time. Many of the steps that are being taken in Lao PDR are similar to those made by other countries in the region over the last few years and it will be helpful for ASEAN to act as a conduit for lessons learned and best practice. The more the region as a whole can unify data collection and dissemination systems the easier it will be to gather information and Lao PDR is keen to participate in this process.

The FLEG process should help this harmonization and Lao PDR is keen to participate in the development of any database systems or data collection sheets that reflect similar efforts in other countries.

Forest law enforcement and governance in Malaysia

Abdul Rahman Abdul Rahim¹

Summary

Malaysia is fully committed to managing its natural forests sustainably. In this endeavour, the Forestry Department ensures continuous timber production while addressing biodiversity conservation and minimizing environmental impact. Malaysia, like its counterparts in the Association of Southeast Asia Nations (ASEAN), adheres to the principles of forest law enforcement and governance (FLEG) to combat illegal logging activities. ASEAN Member States (AMS) agreed to pursue FLEG at the meeting of the ASEAN Ministers for Agriculture and Forestry in 2007. Resolve was tightened through development of the Work Plan for Strengthening FLEG (2008-2015) at the 11th Meeting of ASEAN Senior Officials on Forestry from 31 July to 1 August 2008 in Kuala Lumpur. The work plan provides the basis for close cooperation and joint implementation amongst AMS and identifies potential partners for collaboration and interactions in strengthening FLEG in the ASEAN region. As far as Malaysia is concerned, the current legislation as well as enforcement procedures and measures are in place to combat illegal logging and other forest crimes, as the level of illegal logging in Malaysia is not as rampant as it is commonly perceived to be. However, Malaysia will institute further measures to deter forest offenders from committing similar offences in the future. Several recommendations for future strategies have been outlined to further strengthen forest law enforcement and monitoring, which include allocating more resources to undertake effective forest law enforcement and educating public and forest communities, private timber companies and other relevant parties on the importance of forest law and its enforcement to combat forest crimes. The purpose of this report is to share Malaysia's experiences pertaining to the status of FLEG implementation as well as government efforts to suppress illegal logging activities.

Enabling conditions

Under the existing constitutional provisions, in Article 74 Clause (2) of the Malaysian Constitution, land and forestry are defined as a state matter and are thus within the jurisdiction of the respective states. Each state is empowered to enact laws on forestry and forest policy independently. The National Forestry Council (NFC) was established in 1971 to formalize the state and federal government relationship. The responsibility for implementing the decisions of the NFC lies with state governments, unless it is within the authority of the federal government. The National Forest Policy, 1978 guides the standardization of forest resource management and development practices in the country. In terms of implementation, the National Forestry Act (NFA), 1984 was formulated and endorsed to further address the need to manage forest areas sustainably. With regard to FLEG exercises for combating illegal logging, the NFA 1984 was amended in 1993 to provide for stiffer penalties for offenders.

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This act is also supplemented by the Wood-Based Industries Act (1984), which regulates and ensures the rational development of wood-based industries in the country. The states of Sabah and Sarawak have their own forest and forest-related enactments and ordinances. In Sabah, these are the Sabah Forest Enactment, 1968 amended in 1992; the Sabah Parks Enactment, 1984; the Sabah Cultural Heritage (Conservation) Enactment, 1997; the Sabah Wildlife Conservation Enactment, 1997; the Sabah Water Resources Enactment, 1998; the Sabah Conservation of Environment Enactment, 1996; and the Sabah Biodiversity Enactment, 2000. Sarawak has the Sarawak Biodiversity Centre Ordinance, 1997 and the Sarawak Natural Resource and Environment Ordinance 1994.

Prevention

Forest law enforcement is an important component of sustainable forest management in Malaysia. In this regard, the key element is prevention strategies (precautionary measures), particularly the authority to reduce or eliminate the incidence of forest crimes.

In Peninsular Malaysia, the NFA, 1984 (Amended 1993) incorporated new provisions to deter the occurrence of forest crimes, such as mandatory imprisonment of not less than one year but not more than 20 years and a maximum fine of RM500 000 (US\$131 579). The amended version also incorporates provisions for the police and military to undertake surveillance of forest activities, especially in curbing illegal logging activities, encroachment of forest areas and timber theft. In Sabah, the Sabah Forest Enactment, 1968 and Forest Rules, 1969 were amended in 1995 to include prescriptions on all aspects of forest administration, planning, management, development/regulation of forest harvesting, revenue collection and development of forest-based industries as well as penalties and procedures in dealing with forest crimes. The amendment of Section 30(2) (b) on penalties pertaining to Section 30 (a),(g) of the Forest Enactment, 1968 in 2007, resulted in the maximum penalty increasing from RM50 000 to RM500 000. This increase was envisaged to serve as a further deterrent against committing crime. In Sarawak, the Sarawak Forest Ordinance, 1954 was amended in 1996 to include the description of three forest types and all forest procedures in dealing with forest crimes. In addition, Sarawak also has the Sarawak National Parks and Nature Reserves Ordinances (1956), Chapter 27 and The Wildlife Protection Ordinance (1958), Chapter 26.

The Forestry Department has also formulated and implemented the Strategy Plan for Combating Illegal Logging. The strategies and activities to curb illegal logging activities conform to eight priority areas: (i) strengthening organization/financial support; (ii) procedures/management practices; (iii) local community/other agencies' involvement; (iv) logistics and infrastructure; (v) human resources/capacity building; (vi) policy and legislation; (vii) wood-based industry; and (viii) technology and equipment.

Strengthening organization/financial support

Outlined strategies include:

- Restructuring and strengthening enforcement units at headquarters and state levels.
- Establishing a special fund from the government to support:
 - Intelligence activities
 - Paying informers
 - Logistics and equipment
 - Helicopter/boat/vehicle rental
- Developing close relationships with the mass media.
- Designing a special uniform and equipment for enforcement teams.
- Developing documentaries related to enforcement activities in curbing illegal logging.

Procedures/management practices

Outlined strategies include:

- Implementing a work shift system (24-hour patrolling).
- Improving the procedure for removal of logs from alienated lands.
- Identification of tax paid for logs in transit.
- Appointing community leaders as associate forest guardians with special allowances and yearly honorariums.
- Incentives for informers.
- Establishing forest control posts in high risk illegal logging zones.
- Developing a mechanism to blacklist rogue logging companies or individual offenders.

Local community/other agencies' involvement

Outlined strategies include:

- Close cooperation with local community members working for development.
- Establishing and encouraging public involvement in providing information.
- Integrating enforcement operations with other enforcement agencies.
- Developing a more efficient mechanism for handling public complaints.

Logistics and infrastructure

Outlined strategies include:

- Forest monitoring by air surveillance.
- Promoting and encouraging the use of sophisticated technology in enforcement such as information communication technology, remote sensing, hyperspectral imaging and radio frequency identification for electronic tracking, etc.
- Forest enforcement units equipped with better vehicles (helicopters, boats, land transport) and communication devices.
- Establishing monitoring stations at the borders between states.

- Setting up detention centres.
- Establishment of a Central Logging Operation Basis.

Human resources/capacity building

Outlined strategies include:

- Developing adequate and comprehensive training programmes on enforcement and legislation aspects for enforcement teams.
- Setting up an expert and technology transfer programme with the cooperation of other enforcement agencies.

Policy and legislation

Outlined strategy:

- Amending the existing NFA, 1984, including several new provisions such as:-
 - o Heavier penalties for forest crimes;
 - o Simplifying investigating and prosecuting procedures; and
 - o Awarding power of arrest, search and investigation to federal forestry officers.

Wood-based industry

Outlined strategies include:

- Preparation of an action plan for reorganization and licensing of wood-based industries.
- Effective monitoring of log movements from forest areas to mills.
- Establishing a Wood-based Industry Enforcement Unit.

Technology and equipment

Outlined strategies include:

- Promoting and encouraging the use of sophisticated technology in enforcement (see logistics and infrastructure).
- Conducting hands-on training for sophisticated technology and technology transfer with relevant agencies.
- Applying forest forensic science in investigation procedures.

The following activities have been undertaken by the Forestry Department in efforts to reduce or eliminate incidences of forest crimes:

- Implement the registry of chainsaws for forest-harvesting activities in permanent reserved forest in Peninsular Malaysia.
- Setting up enforcement teams within state forestry departments and the Forestry Department headquarters to patrol sensitive areas, occasionally by helicopter. The

enforcement teams carry out monthly checks on currently logged areas, visit checking stations and create roadblocks to ensure that no illegal logging occurs; mills are inspected to verify that no illegal logs enter the production process. The checking station system ensures that lorries carrying legal logs have (log) removal passes at all times.

- Establishing a flying squad, which also carries out regular surveillance, roadblocks and surprise checks to prevent any forest encroachment.
- Promoting a Timber Licensing Assurance System under the Malaysian-European Commission's Forest Law Enforcement, Governance and Trade Voluntary Partnership Agreement – a private sector initiative for sourcing of legal timber which is undertaken on a voluntary business-to-business basis.

Detection

Table 1 summarizes illegal logging cases detected in Malaysia from 2006 to 2008. The increasing number of cases indicates positive outcomes from regular patrolling of hotspot areas by trained/skilled forest personnel as well as provision of appropriate tools/equipment for detection. For detection purposes, the following activities are also implemented:

- Implementing a work shift system (24-hour patrolling).
- Establishing forest control posts in high risk illegal logging zones.
- Forest monitoring by air surveillance.
- Promoting and encouraging use of sophisticated technology (see logistics and infrastructure).
- Establishing monitoring stations at the borders between states.
- Setting up detention centres.

Table 1. Summary of illegal logging cases detected in Malaysia

Region	2006	2007	2008
Semenanjung	34	38	42
Sarawak	16	51	67
Sabah	69	29	34
Total	119	118	143

Suppression

Toll-free service, the short messaging system (SMS) and an hotline number enable the public to report forest crimes to the relevant forestry authorities. The Enforcement Unit at the State Forestry Department also inspects logging activities, checks logging licences, inspects mill premises, monitors forest produce in transit and investigates public complaints.

Investigation

The Forest Enforcement Unit appoints intelligence and investigation officers, forensic officers and prosecution officers to undertake investigation activities. These officers are equipped with relevant and adequate knowledge and skills. In addition, jointly organized

courses on investigation with related enforcement agencies such as customs/excise and police chemistry departments have also been conducted (Table 2).

Table 2. Examples of capacity building organized by the Forestry Department

Course	No. of participants
Advanced investigation	36
Firearms training	68
Management of crime scenes (forest forensics) training	42

Prosecution

The Penal Code and Criminal Procedure Code are also used to prosecute illegal logging offenders. These codes outline the procedure for the disposal of confiscated material. Sections 89 and 93 of the National Forestry Act, 1984 also provide guidelines on how confiscated materials should be handled.

Recovery

Current acts, forest ordinances and forest enactments handle recovery of seizures. Under these forestry legislations, the forfeiture or the release of anything liable to forfeiture under this law is made by a court of law.

Forest governance (non-law enforcement)

Being one of the world's mega diverse countries, Malaysia is fully committed to managing its natural forests sustainably. In this endeavour, the Forestry Department ensures continuous timber production while addressing biodiversity conservation and minimizing environmental impact. Malaysia, like its counterparts in the Association of Southeast Asia Nations (ASEAN), adheres to the principles of forest law enforcement and governance (FLEG) to combat illegal logging activities. ASEAN Member States (AMS) agreed to pursue FLEG at the meeting of the ASEAN Ministers for Agriculture and Forestry in 2007. Resolve was tightened through development of the Work Plan for Strengthening FLEG (2008-2015) at the 11th Meeting of ASEAN Senior Officials on Forestry from 31 July to 1 August 2008 in Kuala Lumpur. The work plan provides the basis for close cooperation and joint implementation amongst AMS and identifies potential partners for collaboration and interactions in strengthening FLEG in the ASEAN region.

Forest governance includes close cooperation with local community members working for development; establishing and encouraging public involvement in providing information; integrated enforcement operations with other enforcement agencies; and developing a more efficient and effective mechanism for handling public complaints in relation to illegal logging activities.

Monitoring and reporting

Malaysia undertakes forest certification. The Malaysian Criteria and Indicators have been formulated to include the elements of law and its enforcement. Criteria 1, which deals with “enabling conditions for sustainable forest management” requires a framework of laws, policies and regulations on the control of forest harvesting, encroachment and participation of local communities. The main objective is to ensure forest products produced or imported conform to domestic environmental standards, regulations and rules.

In practice, there are three levels for monitoring and reporting forest crimes/offences. At the operational level, the Task Force on Illegal Logging Monitoring Committee, chaired by the Deputy Director General of Forestry (Operational & Technical), meets every month to monitor and report on the activities of the Strategy Plan for Combating Illegal Logging in Peninsular Malaysia. At the management level, the Forest Operational and Monitoring Committee, chaired by the Director General of Forestry Peninsular Malaysia, meets at quarterly intervals, discussing and planning for future action. At the national level; the National Task Force for Monitoring Actions in Combating Illegal Logging (NATFIL), chaired by the Secretary General, Ministry of Natural Resources and Environment, meets once a year to discuss the integrated enforcement strategic plan among related government enforcement agencies and to endorse future plans for combating illegal logging.

In addition, regular monitoring and reporting activities are also undertaken through frequent patrolling which involves monitoring the movement of timber from forest areas; preparation of daily felling records; maintaining forest checking station records on all trees felled and removed; inspecting all logs transported from licensed logging area; ensuring dimensions of logs are measured and entered into the Tree Tagging Record; and proper issuance of removal passes by designated forest officers.

Comments and conclusion

Malaysia is fully committed to FLEG initiatives. As far as Malaysia is concerned, the current legislation, as well as enforcement procedures and measures, are in place to combat illegal logging and other forest crimes as the level of illegal logging in Malaysia is not as rampant as it is commonly perceived to be. However, Malaysia will institute further measures to deter forest offenders from committing similar offences in the future. Several recommendations for future strategies have been outlined to further strengthen forest law enforcement and monitoring, which include allocating more resources to undertake effective forest law enforcement and educating public and forest communities, private timber companies and other relevant parties on the importance of forest law and its enforcement in combating forest offences.

Forest law enforcement and governance in Myanmar

Zaw Win Myint¹

Summary

Forest management in Myanmar began in 1856 with the inception of the Myanmar Selection System (MSS); this was followed by formation of the Forest Department in order to exercise rules and regulations. In the MSS, extraction of timber is controlled by a minimum exploitable girth limit and annual allowable cut (AAC), which is based on forest growing stocks. Myanmar has had a sufficient legislative and regulatory framework but little emphasis was placed on forest law enforcement in the Forest Policy, 1995, in which more stress was put on environmental conservation and socio-economic development. Myanmar has a satisfactory institutional framework to address forest law enforcement, yet intra- and interagency cooperation is apparently inadequate to cope with changing situations. In the institutional framework, a human resource development strategy should be promoted to train stakeholders on forest law enforcement. Forest law enforcement has been carried out effectively for the last five years under the guidance of the Ministry of Forestry. Recent strategic forest law enforcement implementation includes formation of a task force to respond immediately to illegal logging, strengthening the reward and punishment system and establishment of a hotline for the public to report information on illegal logging and timber theft. Strict surveillance of areas where illegal logging and timber theft occur is often practised in collaboration with local security forces. However, by sharing borders with countries where wood-based industry is developing rapidly, there is huge potential for transboundary timber trade and illegal logging through porous borders. Imbalance between legal timber supply and demand for local use encourages illegal logging. In order to combat and reduce transboundary timber trade of illegally harvested logs, regional initiatives and cooperation and coordination with neighbouring countries are urgently needed. This paper briefly describes the current situation of forest law enforcement and governance (FLEG) implementation in Myanmar. Some aspects directly relevant to the requirements for successful implementation of FLEG in Myanmar are also discussed.

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Thematic elements

Enabling conditions

Legislative and regulatory framework

Forest management in Myanmar began in 1856 with the inception of the Myanmar Selection System (MSS); this was followed by formation of the Forest Department in order to exercise rules and regulations. In the MSS, extraction of timber is controlled by a minimum exploitable girth limit and annual allowable cut (AAC), which is based on forest growing stocks. Myanmar has had a sufficient legislative and regulatory framework, but little emphasis was placed on forest law enforcement in the Forest Policy, 1995 in which more stress was put on environmental conservation and socio-economic development.

Policies and other instruments that have been promulgated over the past 15 years to address forest management, environmental conservation practices and wildlife protection in Myanmar are listed below.

- Myanmar Forest Policy (1995)
- Forest Law (1992), Forest Rules (1995)
- Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law (1994)
- Community Forestry Instructions (1995).
- Myanmar Agenda 21 (1998)
- Criteria & Indicators for Sustainable Forest Management in Myanmar (1998)
- National Code of Forest Harvesting Practices in Myanmar (2000).

Forest policies that address FLEG implementation

The Myanmar Forest Policy, 1995 does not include FLEG implementation, although the fundamental principles are found in major national policies related to socio-economic and technical development as well as environmental conservation.

Institutional framework and intra-and interagency cooperation

Under the Ministry of Forestry, the following governmental institutions are tackling forestry-related matters and issues.

Forest Department (FD): Protection and conservation of wildlife and sustainable management of national forest resources.

Dry Zone Greening Department (DZGD): Reforestation of degraded forest lands and restoration of degraded land in the dry zone of Central Myanmar.

Myanma Timber Enterprise (MTE): Timber harvesting, milling and downstream processing and marketing of forest products.

Planning and Statistics Department (PSD): Coordinates and facilitates the tasks of the FD, the MTE and the DZGD by following directives of the Ministry of Forestry; it deals mainly with policy matters and issues related to forestry.

Other partners comprise all line ministries including the Ministry of Mines and Ministry of Transport, as well as the Myanmar Police Force, customs and excise and local administrative bodies.

Non-governmental organizations such as the Wildlife Conservation Society (WCS)-Myanmar play significant roles in preventing the illegal exploitation of biodiversity.

In addition, committees for the protection and conservation of forests are formed at different civil administrative levels – state and division, district and township – respectively. These committees coordinate with and supervise forest stakeholders to achieve the goals of forest law enforcement.

Institutional capacities

The FD has the sole mandate to exercise forest law enforcement. As forestry staff members are responsible for both conservation and protection of forest resources, data on staff complements and budget allocations for FLEG are not available separately. Currently, the FD has approximately 15 000 staff.

Police officers are also responsible for suppressing illegal logging and timber theft but information on the size of the force could not be obtained.

General development context (rural poverty situation)

Myanmar's population reached 57 million in 2009 and its growth rate is 1.84 percent. Myanmar's forests are socially and economically significant for national development. Over 70 percent of the country's total population is rural and dependent on forest resources for basic needs such as food, fodder, fuel and shelter.

Myanmar is a developing country with abundant forest resources and the Ministry of Forestry is striving to implement participatory forestry practices. Community Forestry Instruction is one of the instruments to fulfill the basic needs of rural communities through sustainable forest resource use. Within the legal framework of the Forest Law, the Forest Department issued Community Forestry Instructions (CFIs) in 1995. CFIs highlight land allocation for community forestry on a usufruct basis and also stress the importance of local community participation in managing forests to meet their basic needs for fuelwood, small timber and non-wood forest products (NWFPs). Environmental conservation is another important component of CFIs.

General law enforcement

Illegal logging is a very challenging issue in Myanmar as it is regionally and internationally. Intensive suppression of illegal logging has been implemented by the FD. Special task forces have been formed to operate in specific areas, mostly along the northern and eastern borders of the country. The Ministry of Forestry closely cooperates with the military, police and local

authorities in this context. The volume of illegal logs and timber seized and number of cases prosecuted from 2001 to 2009 are shown in Table 1.

Table 1. Illegal timber volume seized and number of cases (2001-2009)

Financial year	No. of cases	Timber volume in tonnes
2001-2002	6 830	24 499
2002-2003	8 125	33 360
2003-2004	7 412	26 803
2004-2005	8 057	30 439
2005-2006	9 542	51 617
2006-2007	10 840	53 814
2007-2008	8 632	40 672
2008-2009	7 093	37 585
Total	51 576	240 935

Source: Forest Department.

Areas of corruption and preventive measures

Corruption can be manifested in overcutting during forest harvesting, forgery of documents (e.g., removal passes, bills of lading), log transportation and downstream timber processing and seizure of 'illegal' logs. Such misconduct is punished heavily under the Forest Law and the departmental instructions of the FD strictly prohibit forestry staff's abuse of power.

Signatory to UN conventions on transnational organized crime and corruption

A survey of the international landscape concerning illegal logging indicates that there is no specific authority to regulate it, let alone the new concept of conflict timber. Although there are several agreements that tangentially address forest conservation and sustainable management, there is no specific treaty that could take on the issue of illegal logging or conflict in any concrete way.

The Convention on International Trade in Endangered Species (CITES) provides the only existing international framework for the licensing of imports and exports of flora and fauna species. Its relevance to logging is restricted to endangered or threatened species; currently, 15 tree species are listed under CITES, although the World Conservation Monitoring Centre has identified over 300 Asian and African species in trade. Myanmar acceded to CITES in June 1997 and exercises the regulations of the convention to control international trade of endangered plant species. At the regional level, Myanmar joined the implementation of the Association of Southeast Asian Nations (ASEAN) Wildlife Enforcement Network established in 2005 and consequently organized the National Wildlife Enforcement Taskforce including relevant agencies such as Forest Customs, Police Force and the Department of Fisheries.

Prevention

The FD has formulated beats, the lowest forest administrative unit, in each township for conservation and protection of forests. The beat officer is normally a deputy ranger and there

is a perceived risk for the well-being of the concerned forest area as it solely relies on the officer's expertise and integrity.

For taking preventive action against timber theft, in addition to regular inspections at revenue stations and checkpoints along the main transportation routes across the country, gathering information and surprise checks are performed by township/district/division level special inspection teams in collaboration with local authorities and the police to monitor:

- Reserved/protected public forests;
- Landing points, rafting depots, timber yards and border passes;
- Transportation (along roads, railways, rivers, offshore);
- Sawing (wood-based cottage industries, sawmills, finished-product industries); and
- Wood-based factories and local dealers.

At every point in the course of extraction, the source of any log can be easily distinguished by hammer marks. Marking is done when trees are selected to be cut and for royalty notation. Each overseer has a unique hammer mark for each item of sawntimber.

One of the reasons for amending the Forest Act, 1902 into the 1992 version was that penalties and fines prescribed in the former were no longer strong enough for mitigating timber theft at a time of high demand for timber at home as well as abroad. As time elapsed, however, fines prescribed in the new Forest Law again became inappropriate for ever-increasing timber prices and for suppressing illegal logging; local administrative authorities had to exercise their administrative power in courts to prescribe imprisonment as the sole punishment for timber theft. In response to a request by the FD, more stringent protection measures such as formation of no-thoroughfare zones were initiated by local authorities in some critical areas.

Community awareness

For community awareness about forest crime prevention, salient points of the Forest Law and Rules are briefed to village heads at regular meetings by township forest officers.

No additional policing programme has been formulated because all forest officers, according to the Forest Law and Forest Rules, have the power to exercise preventive and protection measures against forest crimes, to search and if necessary arrest offenders and seize and dispose of contraband; the names and addresses of the suspected offenders are also registered.

Sustainable forest management (supply/demand balance)

Under the MSS, only mature trees are selected and harvested. Harvesting of trees is regulated based on annual growth and controlled by girth limits prescribed species-wise. Felling of exploitable trees is within the bounds of a carefully calculated AAC. The AAC is thus a tool that ensures the harvest of timber yield on a sustained basis. The AACs for teak and for non-teak species other than hardwoods are periodically revised and fixed, based on updated information.

Until the beginning of 1996, the AAC for teak was 609 500 m³. It was revised and a new AAC was prescribed at 409 062 m³ in late 1996 with a reduction of more than 200 000 m³. However, Myanmar is increasing the extraction of non-teak hardwoods as permitted by the AACs with the intention of stabilizing the international trade in timber and ecosystem integrity. The current AACs for teak and other non-teak hardwoods are given in Table 2.

Table 2. Annual allowable cuts in Myanmar (1998)

Tree species	No. of trees	Volume (m ³)
Teak	124 213	409 062
Other hardwood	1 795 424	3 236 071

Source: Planning & Statistics Division, Forest Department (1998).

Production has exceeded the AAC for the last ten years due to new production in areas where insurgency had made production impossible in the past and where land-use change was generated by development programmes.

Hardening /strengthening taxation of timber sales and taxation systems

The MTE is a state-owned agency and is solely responsible for retail and marketing, including both local distribution and export. Only finished products and semi-finished products are permitted to be exported by private companies. In addition, timber sale for local consumption as well as export by the private sector is also permitted under the aegis of the MTE. In the export sector, the MTE collects 10 percent of the sale value as a tax because the FD is not empowered to receive any foreign currencies.

Detection

Hotlines at the Ministry of Forestry and FD headquarters are generally accessible to report timber theft and illegal logging; upon receipt of such reports, a special task force shall be assembled and immediate inspection shall be carried out. Areas where illegal logging is recurrent are marked for surprise checks and inspections.

Hammer marks and related documents have to be checked at every revenue station, checkpoint and destination for timber-tracking purposes; physical surveillance in forest reserves is the domain of beat officers and recently all FD officers have become responsible for periodic inspection of reserves. For technical surveillance, the FD still lacks both staff expertise in computer software and the necessary hardware to monitor illegal logging.

Although many informal informants are major intelligence sources, forest village groups formed by the FD, mainly for work in forestry operations, still remain as informants of any unlawful conduct in nearby forests, including illegal logging. According to prevailing regulations, informants shall be rewarded with the equivalent of 40 percent of the value of the assets seized. Anti-money laundering laws should be enacted and enforced effectively.

Suppression

The decision to prosecute forest offences in courts is made by the district forest officer (DFO) in accordance with the Forest Law and Forest Rules and copies of all documents presented to the court have to be kept by the DFO. All cases put to the court are to be registered monthly in Record 1 (the control form for forest offences) and monitored regularly by the DFO. Such cases are removed from the record only after the court's judgement. Within 90 days after the judgement, if applicable, the DFO has the right to appeal; hence, he also needs to claim for a copy of the final judgement for the particular case. There is no scope for forest officers in the Forest Law and Forest Rules to have access to the bank accounts of suspected offenders. No cooperation with the police or financial institutions has been revealed to date in this regard.

Forest crimes are punished by imprisonment, fines or seizure of assets. Currently, imprisonment is effective but fines are no longer an adequate deterrent. Furthermore, compensatory payment for damage to forest is ignored in most rulings although courts have the rights to exercise such power.

One of the main responsibilities of the military is to safeguard national interest and as forests are a major asset the military has a role in combating illegal logging particularly in areas beyond the reach of civil administration.

The police are empowered to search and arrest those involved in illegal logging and to seize contraband. In addition, when forest officers request assistance, the police shall respond.

Investigation

All forest officers have two different roles which quite often contradict each other: Forest police (law enforcement staff) and forestry extension workers. As a result, their investigation efficiency is hampered although procedures are mentored during compulsory attendance at the Vocational Training Course at the Myanmar Forest School and other departmental training courses.

Legal knowledge of forest law enforcement officers is somewhat inadequate compared to other law enforcement officers. Previously, confirmation of a particular rank on a forest officer was assured only after the officer had passed departmental examination in law and procedures. However, the system has been obsolete for the last 30 years and structures have changed. Currently, the law offices of territorial areas are the authorized advisors for legal issues and forest officers have only amateur legal knowledge. Thus, their legal knowledge urgently needs enhancement.

If there is no offender present at the time of inspection, as a standard procedure, anybody near the site of the alleged crime is interviewed by a forest officer as a witness before two other witnesses to the statement. The forest officer also has the power to summon the witnesses, to call for documentary evidence and to cross-examine the witnesses. Although plea bargaining with forest offenders for information and evidence has been common in recent years, no exception for an offender is found in any FD regulation including the Forest Law and Forest Rules.

Prosecution

Evidence necessary for prosecution is a statement by the offender, specifications and photographs of the timber seized and in some cases, of machinery, draught animals and/or vehicles seized.

An offender's statement taken by a forest officer is eligible evidence in court, whereas that taken by a police officer is not. Public knowledge of penalties is limited.

Judges' knowledge on forests and forest-related laws is unquestionable, while that of the prosecutor is held with no such high respect, particularly in cases prosecuted by forest officers who have very little knowledge on law other than forest law.

Recovery

All forest officers and police officers have the power to seize illegal timber but recovery of stolen assets comes only after the trial, except for those passed by administrative action taken by a forest officer.

Although there are no provisions for rehabilitation of crime-affected forests, the FD has been establishing about 30 000 hectares of forest plantations annually in degraded areas.

Forest governance (non-law enforcement)

Even at the beginning of scientific forest management in 1856, public consultation was incorporated in the process of reservation. According to forest law and rules, people in and around a zone proposed as reserved forest still continued to be provided with information regarding objectives; permissible and impermissible actions; the right to claim their customary rights and privileges before the reservation's establishment and so forth. Nowadays, to hear the voices of the people concerned and to make free and fair decisions, the FD appoints an independent person as a forest settlement officer. Among the six imperatives of the Myanmar Forest Policy, 1995, peoples' participation and public awareness also pave the way for the participation of local people in forest governance. Consequently, CFIs were issued in 1995 with the follow-up amendment of the Forest Rules. The policing role of forest staff, however, makes people's participation difficult and as a result there is very little effective collaboration between forest staff and local people in forest management.

The ability of landowners or rights holders to receive a fair return for the use of forests is limited because development programmes are the first choice for decision-makers as in other developing countries.

Protection of non-formalized customary rights is contained in both the Forest Law and Wildlife Protection Law.

The MTE monopolizes timber extraction all over the country. For commercial purposes, there are two different types of timber sale, namely tender sale and direct sale to private companies - both domestic and foreign. The price of timber for direct sale is fixed periodically based on tender sales. In addition, timber sale for local consumption as well as export by the private sector is also permitted under the aegis of the MTE. For improvement

of infrastructure at the local level, the FD can gain revenue by selling seized contraband to appropriate authorities.

Monitoring and reporting

In accordance with the Forest Law, forest crimes can be charged via forest administrative means or prosecution in courts. Through forest administrative means, the local forest officer uses the power of examination and sets penalties for some forest crimes. There is no monitoring mechanism for successful prosecution and no available data for analysis. There is a need for improvement in this respect. But based on information from reliable sources and with strong evidence, the majority of cases prosecuted are thought to be successful.

Asset forfeiture and disposal of assets or proceeds

Statistics related to asset forfeiture and disposal of assets or proceeds are provided in Tables 3 and 4.

Table 3. Statistics on seized timber (2004-2010)

Year	No. of incidents	Volume of timber (tonnes)	No. of offenders			No. of vehicles	No. of boats
			Foreign	Local	Total		
2004-2005	3 671	30 439	-	6 272	6 272	165	36
2005-2006	3 320	51 617	288	6 676	6 964	202	70
2006-2007	7 820	53 814	8	7 855	7 863	557	99
2007-2008	8 632	40 673	20	6 968	6 988	574	211
2008-2009	7 093	37 585	6	6 143	6 149	389	69
2009-2010(up to Sept.)	2 791	21 692	8	2 780	2 788	325	25

Source: Forest Department.

Table 4. Disposal of seized timber (2004-2008)

No.	Year	Volume of timber (tonnes)	Transfer to MTE (state-owned)	Auction and other sale
1	2004-2005	30 439	10 395	10 493
2	2005-2006	51 616	14 353	11 746
3	2006-2007	53 814	21 208	10 010
4	2007-2008	40 672	31 232	17 441
Total (approx.)	1 765 43	77 188	49 691	

Source: Forest Department.

In accordance with the Forest Law, 1992, seized timber shall be confiscated only after a decision made by either the DFO or a court.

Information on the number of forest crimes detected and reported is available at different levels but due to time and space limitations data could not be reported.

Timber production and forest types

Details of hardwood production are given in Table 5. Descriptions of forest types and their productivity are found in Table 6.

Table 5. Teak and hardwood production by the MTE (2003-2009)

Budget year	Teak logs	Hardwood
2002-2003	297 979	1 072 734
2003-2004	362 039	1 126 862
2004-2005	300 497	1 148 876
2005-2006	307 060	1 177 000
2006-2007	323 000	1 217 505
2007-2008	320 000	1 200 000
2008-2009 (yearly plan)	250 000	1 220 000

Source: Planning and Statistics Department.

Table 6. Forest types and productivity (km²)

Forest types	Productive forest	Unproductive forest	Total
Closed broadleaf	206 550	119 080	325 630
Mangrove	3 820	4 030	7 850
Bamboo	9 630	-	9 630
Conifers	10 640	-	10 640
Total	230 640	123 110	353 750

Source: Forestry in Myanmar (2000).

The extent of forest lands addressed by management classes ('working circles') is reported in Table 7.

Table 7. Forestry by working circles

Working circle	Extent(km ²)
Non-wood forest products	51 815 95
Production forest	120 174 36
Plantations	6 512 14
Local supply/community forestry	67 486 00
Watershed forests	14 985 85
Mangroves	756 41
Protected area system	9 641 08
Total	271 371 79

Source: Forest Department, FRA (2005).

Fiscal revenue from the forestry sector

Table 8 elaborates the FD's annual income and expenditure from 1998 to 2008. Expenses include forest conservation and protection activities and payments for staff. Expenses for implementation of forest law enforcement only are not available.

Table 8. FD income and expenditure from 1998 to 2008 (million kyat)

Year	Expenditure			Income				Current Receive	Total income
	Current	Capital	Total	Revenue			Total		
				Teak	Hardwood	Other			
1998-1999	458	388	846	193	269	232	694	388	1 082
1999-2000	574	642	1 216	320	304	255	879	429	1 308
2000-2001	1 310	618	1 928	409	348	288	1 045	539	1 584
2001-2002	1 433	725	2 158	378	414	322	1 114	276	1 390
2002-2003	1 496	839	2 335	454	309	616	1 379	199	1 578
2003-2004	1 834	1 103	2 937	492	475	891	1 858	225	2 083
2004-2005	2 663	1 264	3 927	547	540	845	1 932	557	2 489
2005-2006	3 263	1 373	4 636	601	731	939	2 271	690	2 961
2006-2007	6 678	1 724	8 402	718	457	3 108	4 283	908	5 191
2007-2008	8 812	2 688	11 500	925	740	3 981	5 646	381	6 027

Note: US\$1.00 = 6.41000 kyat (March 2010).

Source: Budget Division, Forest Department.

Contribution of forestry to formal GDP and employment

Real GDP per capita (at 2000-2001 producers' prices) in 2005-2006 was 84 396 kyat. With regard to the value of foreign trade in 2005-2006, exports amounted to 20 647 million kyat and imports 11 514 million kyat. Myanmar's principal exports are natural gas, teak and other hardwood, pulses, garments and marine products. Principal export markets are Southeast Asia, China, India and Japan (CSO Statistical Yearbook 2006).

The forestry sector has constituted around 1 percent of the national GDP annually over the last decade. Export earnings made by the forestry sector constituted about 30 percent of the country's total in the early 1990s.

The growth rate of forestry sector GDP was about 2.7 percent of the total national GDP in 1996-1997, 1.3 percent in 1997-1998, 1 percent in 1998-1999, 0.9 percent in 1999-2000 and 10.1 percent in 2008-2009.

Comments and conclusion

The Forest Law, Forest Rules and regulations are, to some extent, satisfactory to implement FLEG in Myanmar. Relative abundance of natural forests in the country to date is a reflection of the consistent exercise of sound forest management practices for years.

However, there is an apparent inadequacy of legal knowledge among forest law enforcement officers and the FD still lacks financial and technical capacity to improve it. The Myanmar Forest Policy has an enormous constraint in that it is unable to address the proper implementation of FLEG. As a result, it has called for intervention in this regard and policy improvement seems to be an obvious choice. In addition, the FD still lacks both expertise in computer software and the associated hardware to monitor illegal logging.

There is also no scope for forest officers under the Forest Law and Forest Rules to gain access to the bank accounts of suspected offenders.

The legal knowledge of forest law enforcement officers needs to be improved as soon as possible.

The following measures are future actions for FLEG in Myanmar:

- Institutional strengthening and capacity building of institutions under the Ministry of Forestry.
- Raising awareness among all stakeholders about forest law and rules and procedures regarding the legal removal of forest resources.
- Implementation of more extension activities related to the rights and responsibilities of the forest users.
- Enhancement of participation by all stakeholders.
- Launching special operations to monitor and inspect forest products and forest reserves on a regular basis.

In order to reduce illegal transboundary logging, regional initiatives and cooperation and coordination with neighbouring countries are urgently required.

Forest law enforcement and governance in Papua New Guinea

Ruth C.H. Turia¹

Summary

Of the total land mass of 46 million hectares in Papua New Guinea, about 29 million hectares are considered to have some forest cover, of which 15 million hectares are suitable for forest development (approximately 33 percent of the country); about 12 million hectares have been acquired with 10 million hectares already allocated for timber extraction.

With a unique land tenure system,² forest crime has not been an issue as the customary resource owners protect their land and forest from unorthodox development by non-owners. Any development is governed by relevant government legislation. For forestry resources specifically, the development and trade of forest produce is effected through the 1991 Forest Policy and the Forestry Act, 1991 (as amended).

Thematic elements

Enabling conditions

Papua New Guinea (PNG) is a resource-rich country but it has faced many governance issues in the management of these resources. The forestry sector specifically contributes to the national economy as well as the economic and social well-being of the rural population. This can be summarized as follows:

- K450-K500 million (US\$135-US\$150 million) on average annually to the GDP.
- K140-K150 million (US\$42-US\$45 million) on average annually in taxes.
- K35-40 million (US\$10.5-US\$12 million) in royalties and levies for landowners.
- Providing infrastructure – roads, bridges, wharfs, jetties etc.
- Providing community services – schools, health, transport etc.
- Providing employment – more than 8 000 employees (rural and urban).

Figure 1 gives an indication of the available forest resources which are mostly located in the islands and the southern part of the mainland of PNG.

¹ Papua New Guinea Forest Authority.

² There are two land-tenure systems in PNG: state land (3 percent) and customary land (97 percent).

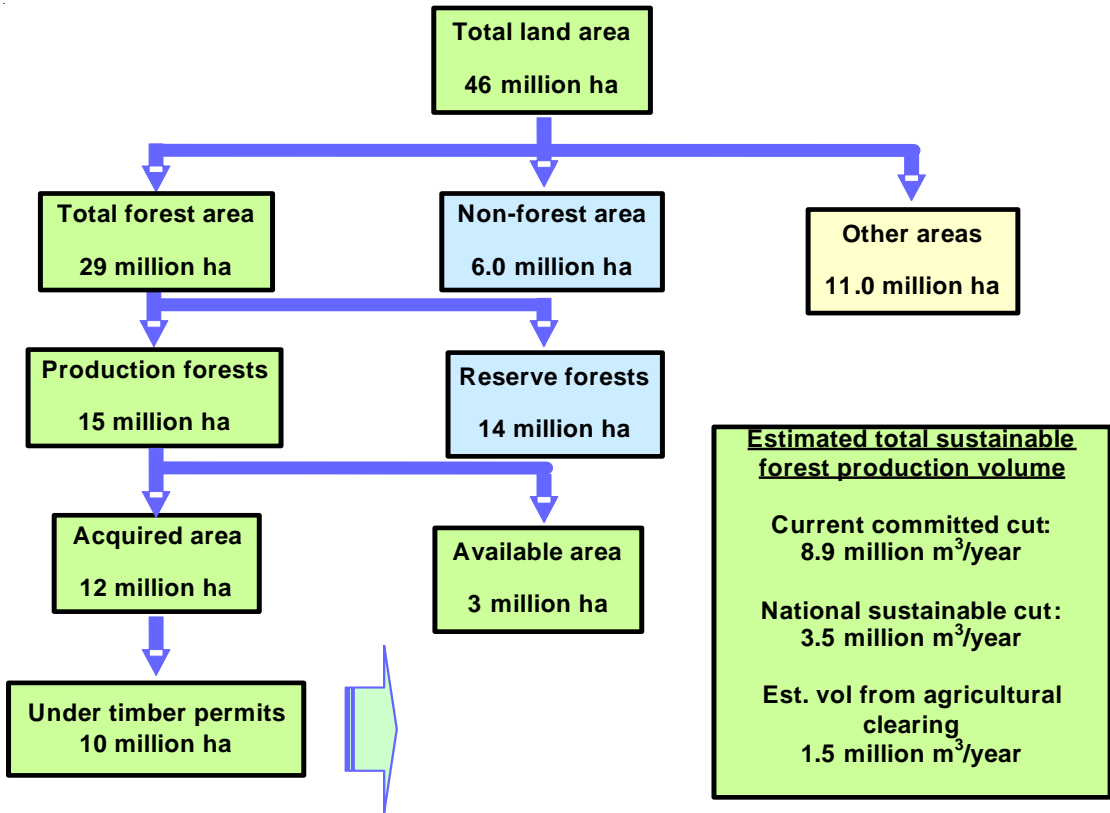


Figure 1. Papua New Guinea’s resource base

Source: Pouru (2009).

PNG does not have an institutional framework in place to combat or address corruption. This does not mean that it is not doing anything to address the growing concern about corruption in the country. It ratified its membership to the UN Convention against Corruption (UNCAC) in 2007 and recently (this year in March) it hosted the Melanesian Sub-Regional Consultation on the UNCAC from 12 to 13 March in Port Moresby.

At this consultation, it was noted that the PNG Government and its people are generally reluctant about and even show some form of apathy when it comes to issues or discussions relating to corruption which appears to be regarded as tolerable. The consultation went further to suggest that this can be attributed to a number of reasons:

- A lack of commitment and political will among public services, the private sector, the general public and politicians.
- A need to develop national identity and an awareness of the impact of corruption on human development.
- A feeling of disempowerment amongst the community.

Recognizing the above reasons, and noting PNG's strengths in the National Constitution and other institutions such as the Ombudsman Commission, the consultation highlighted the following key priorities for action:

- Undertake a national integrity stock-take to identify what has already been done or is ongoing. This includes a gap analysis on the UNCAC and an assessment of initiatives.
- Establish a national integrity taskforce, to include government officials and members of the Consultative Implementation and Monitoring Council (the taskforce should be led by Department of Justice and the Attorney General [DJAG]).
- Carry out a national assessment of governance and corruption (to be conducted by the National Research Institute [NRI]) which will inform the work of the taskforce.
- Develop a national integrity plan, which will set out the government's comprehensive anti-corruption plan, in the short, medium and long term.
- Endorse the DJAG as the lead agency in the implementation of the UNCAC.
- Establish a taskforce to develop an action plan, which will include specific details on intended outcomes, outputs, priorities, timelines, responsible parties and resources needed. A monitoring plan will also be developed to assess the ongoing effectiveness of the action plan).

Some of these recommendations have already been carried out (Dix and Gelu 2009), which unfortunately has no direct linkage with governance in the forestry sector. As of March 2009, the PNG Corruption Perceptions Index (CPI) was set at 2.0 (i.e. 151 out of 180 countries). By November in the same year it had dropped to 154, or a CPI of 2.1.

Timber harvesting and trade in PNG are undertaken in compliance with the Forest Policy, 1991 and the Forestry Act, 1991 (as amended). In essence, the Papua New Guinea Forest Authority (PNGFA) follows 33 steps (Appendix 1) in the acquisition and allocation of timber concession areas.

Furthermore, the PNGFA regulates the timber operations within these concessions by applying the PNG Logging Code of Practice (PNG LCOP), particularly the 24 Key Standards, and then monitors them using the Planning and Monitoring Control Procedures for Natural Forest Logging Operations under Timber Permit (PMC). The PNG LCOP and PMC specify in detail the required standards for harvesting, including road construction to:

- Ensure that logging proceeds in an orderly manner and in accordance with the terms and conditions specified in the Timber Permit and associated project agreements where this exists.
- Ensure that environmentally and socially sensitive areas are excluded from logging.
- Ensure that logging takes place in accordance with sound silvicultural and environmental principles, thus ensuring sustainable wood production and the future of the industry.

A number of interrelated acts have some effects on the forestry sector and so their requirements are addressed as part of the PNGLCOP. These include:

- The Environment Act, 2000.
- The Investment Promotions Act, No. 8 of 1992.
- The Public Health Act, Chapter 226 and its regulations.
- The Industrial Safety, Health and Welfare Act, Chapter 175.
- The Land Transport Board Act as amended No. 11 of 1991.
- The Civil Aviation Act, Chapter 239.
- The Public Works Committees Act, Chapter 28.
- The Land Groups Incorporation Act, Chapter 147.
- The Labor and Employment Act (for work permits).
- The Immigration Act (for work permits).
- The Customs Act (for export permits).
- The Goods and Valuations Act (for export licences).

Prevention

PNG is committed to ensuring that timber harvesting and trade are conducted in accordance with the laws of the land. In this respect, forest officers are located in most timber concession areas to ensure that the timber company complies with the terms and conditions of its operating permit/agreement as well as other relevant laws governing the operations and personnel who are employed by the company working in those areas.

PNG does not as yet have in place specific forest crime prevention strategies and activities. It is envisaged that they will be developed as part of the recently approved Forest Law Enforcement and Governance (FLEG) Project funded by the International Tropical Timber Organization (ITTO).

Detection

The PNGFA (or the government) does not have a specific agency that monitors forest crime trends or intelligence on forestry-related activities. While it has officers stationed in respective logging sites to monitor the timber concession areas, its powers are limited in that it has to firstly prove that a timber operator has violated certain provisions of the Forestry Act, 1991 (as amended) before it can institute legal proceedings. In some cases, because of the remoteness of the logging sites, it takes a long time for the matter to be reported and for appropriate actions to be taken, which by then would be obsolete. At the same time the size of project sites (averaging 100 000 hectares) makes detection difficult.

The government has contracted an international surveillance agency – Société Générale de Surveillance (SGS) – to monitor log exports out of PNG and report any discrepancies to the government. This process has been very effective as it also ensures that the government collects the revenue due from its log exports.

Suppression

The military, police or other public security agencies are not directly involved in the monitoring of crime-related activities in the harvesting and trade of timber in PNG. Community groups who own the land and the forest resources are present and can observe what is occurring. There may be instances of small volumes of non-wood forest products being removed where resource owners may collude with investors to get quick cash.

The police presence in some project sites is to maintain law and order and in most cases provides security at the request of the timber companies.

Investigation

As previously mentioned, there is no set mechanism in place involving other agencies in carrying out surveillance of logging concessions. Most of the monitoring of timber activities is undertaken by forest officers and where a breach has occurred, they apply the provisions of the Forestry Act to institute appropriate penalties for non-compliance with the terms and conditions of logging. In cases where there is suspicion of illegal logging and trade, the PNGFA can seize the timber produce and if the person or company is aggrieved by this action, then standard court proceedings can follow. This process will involve other agencies such as the Customs Department, the police force and courts. In most cases loggers are penalized for operating without legal authority.

Prosecution

In normal cases the offenders are prosecuted through judiciary systems and if found guilty by the courts they face penalty fines as stipulated in the Forestry Act, 1991 (as amended). However, in most cases parties resort to out-of-court settlement primarily to avoid prolonged court battles which might affect operations and ultimately delay the delivery of goods and services to local communities.

In addition, timber harvesting and export operations can be suspended or a timber permit can be cancelled in accordance with the Forestry Act 1991, (as amended).

Recovery

Part of the recovery process can be instituted through the application of performance bonds and bank guarantees that have been lodged and held against non-compliance, especially monetary benefits under a Timber Permit or project agreement. If an operator fails to settle outstanding timber royalties or other forest charges, the performance bond will be drawn down to settle and operations will stop until the bond is topped up again. The performance bond normally runs for 12 months and every year it is renewed. No performance bond is released after the completion of operations until a full compliance report is submitted and meets a satisfactory level.

Forest governance (non-law enforcement)

The whole process of resource acquisition and allocation is outlined in Appendix 1.

Monitoring and reporting

The forestry sector contributes on average between US\$135 and US\$150 million towards the economy through export tax (28.5 percent fixed rate). The export trends for both logs and processed products are given in Figures 2 and 3 respectively.

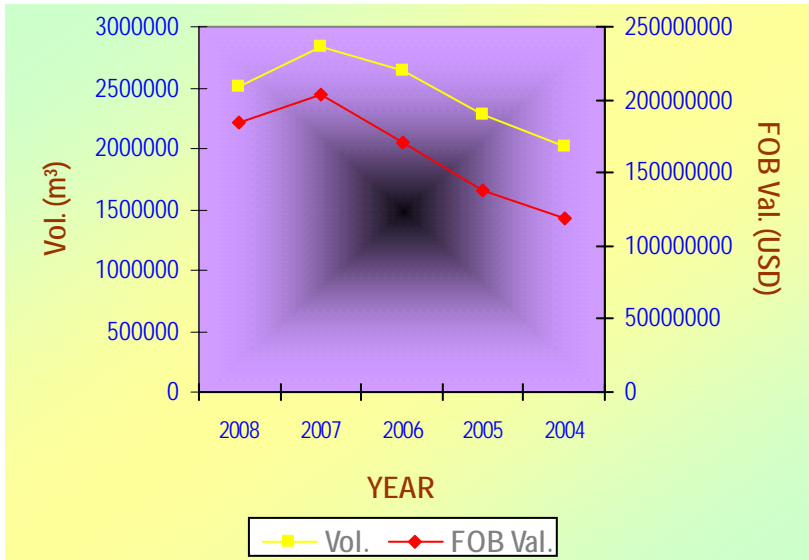


Figure 2. Export trends for logs (2004-2008)

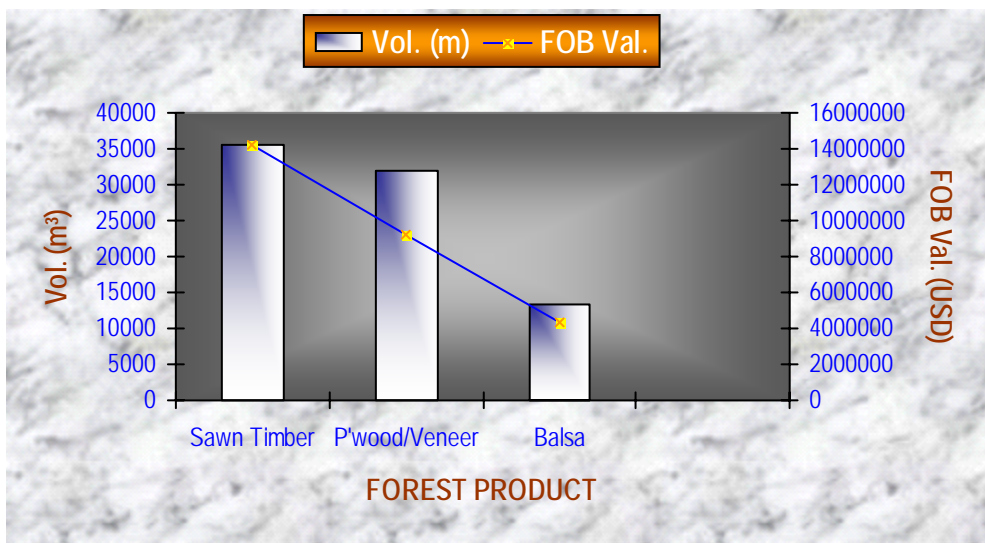


Figure 3. Export trends for forest products

Source: Papua New Guinea Forest Authority (2009).

Comments and conclusions

The Government of Papua New Guinea is concerned about governance in general. This is evidenced by the number of reform processes that it went through under the World Bank's Structural Adjustment Program mechanisms (the Economic Recovery Program, the Social Development and Economic Program and the Governance and Promotion Adjustment Program).

A number of initiatives were undertaken for the forestry sector by the government and development partner agencies such as the World Bank and the Australian Agency for International Development to address governance in the sector. Unfortunately, no strategies in terms of documented guidelines were developed to assist the government in addressing issues of corruption in the forestry sector.

Recently, other agencies such as the PNG Forest Industries Association, Transparency International and other development partners (e.g., ITTO) have also been taking on the challenge to develop appropriate mechanisms in addressing governance for the harvest and trade of timber in PNG.

New challenges

1. Transfer pricing: It is suspected that this is happening, but lack of market intelligence and price-tracking mechanisms makes it extremely difficult to overcome this problem. Hence, PNG continues to push up the prices for higher species groups to better operator applications for price endorsements.
2. Development of market strategies for tree plantations in PNG.
3. Improve the quality of processed wood products to meet international standards.
4. Developing and implementing guidelines for small-scale operations in PNG (small-scale operations normally operate without proper permits, which may have adverse environmental impacts).
5. Concerns about climate change and the role that the forestry sector can take in some mitigation initiatives, e.g. reduced emissions from deforestation and forest degradation (REDD+).

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Appendix 1. Checklist for the acquisition and allocation of forest concession areas

CHECKLIST OF STEPS REQUIRED TO BE TAKEN BEFORE A TIMBER PERMIT CAN BE GRANTED	DATE STEP TAKEN	DATE STEP COMPLETED
PROJECT NAME:		
* = FUNCTIONS DELEGATED TO MANAGING DIRECTOR		
1 Landowner awareness campaign conducted by the National Forest Service.		
2 The timber rights in the Forest Management Area are acquired by the Authority pursuant to a Forest Management Agreement (FMA). (Section 56(1) of the Forestry Act).		
3 The consent of the customary owner to the land is obtained pursuant to Section 57 of the Act by executing the FMA.		
4 The FMA contains a certificate from the relevant Provincial Forest Management Committee (PFMC) that there has been consent by the customary owners and they give a certificate of authenticity of the tenure of the customary land as required by Section 58.		
5 As required by Section 56(2) the Minister then approves the FMA.		
6 Development Option Studies (DOS) are carried out by the Authority in accordance with any directions given to it by the PFMC (Section 62).		
7 The Board provides to the Minister and the PFMC true copies of the DOS (Section 62[4]).		
8 Draft project guidelines are prepared by the PFMC after consultation with the owners of the forest resource and the Provincial Government, which are then submitted to the Board (Section 63(2)).		

<p>9 If Draft guidelines are in order they are approved by Board who then issue final guidelines (Section 63[2]).</p>		
<p>10 (a) The Board then advertises the forest development project. (Section 64). OR (b) Considers proposals without advertisement (Section 64[3]).</p>		
<p>11 The Project proposals are then:(a) lodged with the Managing Director by placing them in the tender box (Section 66[2]). OR(b) lodged with the Managing Director directly when the Board has determined to consider proposals without advertisements.</p>		
<p>12 The Managing Director then refers the project proposals to the PFMC for evaluation. (Section 67[2]).</p>		
<p>13 The PFMC evaluates the project proposals against specified criteria as set out in the Act with the assistance of the National Forest Service (NFS) (Section 67[2]).</p>		
<p>14 The PFMC may invite proponents to provide either at interview or by written submission further information in order to clarify or elaborate on proposals (Section 68).</p>		
<p>15 The PFMC then submits to the Board a detailed report of its evaluation and recommendation as to proponents (if any) with whom further negotiations should proceed. (Section 69).</p>		
<p>16 The Board then considers and consults with the Minister on the PFMC report and recommendations (Section 70[1][a]).</p>		
<p>17 The Minister then provides his comments to the Board (Section 70[1][a]).</p>		

<p>*18 The Board in conjunction with the PFMC then sets the parameters within which such negotiations should be conducted and assists the PFMC in setting up a negotiating committee (Section 70[1][c] & [d]).</p>		
<p>19 The Board then <u>directs</u> the PFMC proponents (if <u>any</u>) that the PFMC should enter into <u>further negotiations</u> with a view to negotiating a project agreement. The Minister's comments are also provided to the PFMC (Section 70[2]).</p>		
<p>20 The PFMC then negotiates a project agreement and submits the final draft to the Board. Only one draft project agreement is ultimately submitted to the Board (Section 71).</p>		
<p>21 The Board then considers the final <u>draft</u> project agreement and if not satisfied that the draft project agreement makes adequate provision for all aspects of the Project then the draft project agreement is returned to the PFMC with details of those matters requiring further negotiations (Section 72).</p>		
<p>22 When the draft project agreement has been returned to the PFMC the PFMC then carries out further negotiations as are necessary and submits to the Board a further final draft project agreement for consideration by the Board (Section 72[2]).</p>		
<p>23 <i>The Board then obtains the approval of the Minister for Finance to execute the Project Agreement (Section 61(2) of the Public Finances (Management Act).</i></p>		
<p>24 The Board then executes the Project Agreement on behalf of the Authority (Section 72[b][i]).</p>		
<p>25 After the Project Agreement is executed by the Board and the proponent the Board then makes a recommendation to the Minister for Forests to grant a timber permit to the person who is the party to the Project Agreement (Section 72[b][ii]).</p>		

<p>26 If the Minister for Forests accepts the Board's recommendation he then invites the proponent to make an application for a timber permit (Section 73[1]).</p>		
<p>27 If the Minister for Forests does not accept the Board's recommendation he may refer the matter back to the Board with reasons for his non-acceptance of the recommendations for reconsideration by the Board (Section 73).</p>		
<p>28 The Board is obliged to reconsider the Minister for Forest's referral back to him and then the Board makes a final recommendation to the Minister (Section 74).</p>		
<p>29 If the Board's final recommendations submitted to the Minister are accepted then the Minister for Forests invites the proponent to make an application for a timber permit (Section 73[1]).</p>		
<p>30 If the Minister does not accept the Board's final recommendation he is obliged to refer the matter together with the Board's recommendations and his reasons for not accepting it to the National Executive Council (NEC) (Section 75[2]).</p>		
<p>31 The NEC may then either accept or reject the project proposals and the Minister must then comply with any direction given by NEC and advise the Board of the directions. If the NEC direction is to accept the recommendation of the Board then the Minister must invite the proponent to make a formal application for a Timber Permit and within 30 days thereafter grant a Timber Permit (Section 76).</p>		
<p>32 If the NEC direction is to reject the recommendation of the Board, the NEC. must then direct the Minister to refer the matter back to the Board and for the Board to either:(a) renegotiate such terms and conditions in the Project Agreement as are specified by NEC as requiring renegotiations; or(b) re-advertise the forest development project (Section 76[4]).</p>		
<p>33 Issuance of Timber Permit to the developer</p>		

Forest law enforcement and governance in the Philippines¹

Mark D.V. De Claro

Summary

There are effective measures and initiatives that further support forest law enforcement and governance (FLEG) in the Philippines. One is the institutionalization of the Multi-sectoral Forest Protection Committee (MFPC) nationwide. The other is the Deputation of Environment and Natural Resources Officers (DENRO) of the Department of Environment and Natural Resources (DENR), which directly involves citizens in the protection and conservation of the country's environment and natural resources. Another key initiative is the establishment of the National Law Enforcement Coordinating Committee (NALECC).

The MFPC comprises various representatives from different stakeholders: NGOs, civil society groups, church-based organizations, peoples' organizations, the media, local police and the military, academic organizations, local government units at both provincial, city and municipal levels and other national government agencies that are active in the campaign against illegal logging. DENRO refers to an individual or group deputized by the DENR for a period of one year or longer over a specific area of jurisdiction and sector as stated in the deputation order. The Special Deputy Environment and Natural Resources Officer (SDENRO) is a person or entity duly deputized by the DENR to act on a specific case or cases for a specified period under a special deputation order. On the other hand, NALECC is a coordinating mechanism for all government agencies with a role in formulating law enforcement policies that are currently being implemented, providing inputs and recommendations and enabling the passage of important legislations affecting national peace and order, the economy and the environment. NALECC serves as an information-sharing network for intelligence and law enforcement agencies. It is composed of various government agencies involved in law enforcement such as the police, the military, the Bureau of Customs, and coast guards, among others. This composite committee conducts regular meetings to discuss various issues and concerns on law enforcement which significantly include combating illegal logging activities and any associated unlawful timber trade.

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Thematic elements

Enabling conditions

The basic forestry law in the Philippines is Presidential Decree No. 705, otherwise known as The Revised Forestry Code of the Philippines which was promulgated on 19 May 1975. All other forest policies spring from this law.

In 1994, the MFPC was recognized by the President of the Philippines as a potential tool to address the problem of forest law enforcement. Hence, he gave the directive to commence its institutionalization. As a result, the DENR issued a set of implementing rules and regulations found in DENR Administrative Order No. 17 dated 20 May 1995 (Institutionalization of the MFPC in the DENR System). It was revised and strengthened in the following year with the issuance of DENR Administrative Order No. 39 dated 16 December 1996. The creation and institutionalization of the MFPC paved the way for the active participation of almost all stakeholders in forestry in curbing illegal logging and unlawful trade of forest products.

Another ongoing initiative of the DENR is the DENRO as prescribed under DENR Administrative Order No. 2008-22. It aims to assist the DENR in the implementation of forestry laws, rules and regulations in order to protect remaining natural resources. The deputation's officers succeeded the Deputation of Forestry Officers (DFO) which had operated since the late 1980s. The focus of DFOs then was limited to forestry only while today's DENROs address the wide gamut of problems pertaining to the environment and natural resources.

When an MFPC is organized, the creation is formalized by a Memorandum of Understanding (MOU) with the DENR. After the issuance of deputation orders with a validity period of one year by the concerned DENR Regional Executive Director, all the members undergo appropriate para-legal training to enhance efficient and effective enforcement of forestry laws, rules and regulations.

NALECC, which is composed of all government law enforcement agencies, was established nationwide, from regional down to provincial levels; this was made possible through Executive Order No. 41 dated 16 December 1992. NALECC serves as a coordinating body for tackling various issues that include forestry law enforcement.

A landmark forestry legislation which complements FLEG in the Philippines is the enactment of Republic Act No. 9175, better known as the Chainsaw Act of 2002. This law requires the registration of all chainsaws and/or power-saws before they can be used in any legitimate forestry development activity. Non-compliance will result in confiscation by the government of the equipment and other implements, apart from other sanctions or penalties considered appropriate under the circumstances.

Another system being implemented by the DENR Forest Management Bureau is the Forest Stocks Monitoring System (FSMS) which was made effective in 1996. The FSMS uses paper trails to track timber from the cutting area to the primary wood-processing plants, although not in real time. In this context, it is worth stressing that no system has yet been devised to track down timber products on their way to the final consumer. This is a policy gap that needs to be addressed. It should be noted that the FSMS replaced the Log Control Monitoring System

(LCMS) of 1994. It seeks to secure information on the status of the remaining residual forest stands after timber harvesting that was not captured under the LCMS.

Prevention

The presence of MFPCs nationwide along with massive information, education and communication campaigns have resulted in forestry-related crimes being reported in real time and far more accurately. These advances in communication technologies have been of considerable assistance to forest law enforcement. Moreover, the level of community awareness in reporting illegal forestry activities has been greatly increased, thus reducing the incidence of forest crimes.

With decentralization of powers and devolution of functions, the various local government units from provincial, city and municipal levels can now pass resolutions that could strengthen local taxation on timber and other forestry-related products. This will discourage proliferation of illicit timber trade because decreasing the profit margin makes the risk unacceptable.

Detection

The movement of timber and other non-wood forest products is required by law to be always accompanied by valid and authentic shipping or transport documents such as the Certificate of Timber Origin (CTO) for roundwood and the Certificate of Lumber Origin (CLO). Such transport documents are computer-generated and protected by 16-digit barcodes and they can be used only once. Hence, the level of detection is very much greater than previous systems. Moreover, the species of timber trees indicated in the timber or lumber tally sheets and the corresponding volumes are closely checked to determine excess in shipment. In addition, forest product monitoring stations, located all over the country, check and monitor the movement of forest products from one station to another.

Suppression

Administrative and/or criminal sanctions imposed on forest offenders range from imprisonment or fines or both depending on the gravity of the offence. Illegal logging is a violation of Section 68 of P.D. 705, as amended. The penalty provided is the same as that of qualified theft in the Revised Penal Code.

In some instances, involvement of public servants in committing forest offences is dealt with by dismissal from the service, including forfeiture of all benefits derived from government employment and a total ban or perpetual disqualification on employment in any government agencies. When 'criminal complaints and information' are filed in court, the court will have complete jurisdiction over the seized forest products until it renders a decision. However, a separate administrative proceeding may take place concurrently considering that the degree of proof required is different. Therefore, the administrative case may proceed independently from the criminal case. In the same manner, administrative bodies may also have within their jurisdiction custody of the property subject to the investigation.

There is also a reward system for informants who give information leading to the successful arrest, seizure and confiscation of illegally gathered forest products and the eventual filing of

criminal complaints against suspected violators. However the guidelines laying down the mechanism for the reward system are still under review because of the need to simplify the dispensation of rewards, which could further encourage the reporting of illegal forestry activities.

The roles and responsibilities of the people involved in forestry law enforcement are well defined. Under existing guidelines, members of MFPCs, including the police and military personnel, are fully aware that all confiscated forest products have to be turned over to the nearest DENR office. DENR personnel are responsible for the gathering of statements by witnesses through affidavits and the subsequent filing of formal complaints in the office of the public prosecutor.

Investigation

All technical forest officers of the DENR assigned to forestry law enforcement have adequate knowledge of forest administration and forestry laws, including the skills to compile legal documents, i.e., taking of statements from witnesses, preparation of affidavits and drafting of complaints. They also undergo para-legal training and are regularly updated on the procedures. But when criminal complaints and information are docketed in courts, the technical personnel of the DENR who filed the complaints become mere complaint witnesses. The DENR will then be represented by its legal officers or lawyers. However, there are not enough legal officers and lawyers at the field levels due to very low government salaries. This, in a way, hampers the prosecution of forest crimes.

Prosecution

Effective prosecution of forestry-related cases is important in order to deter forest crimes. Crucial to obtaining a favourable decision in court is the filing of the correct charges and the inclusion of each of the elements necessary to complete the crime. A criminal proceeding is instituted by filing a complaint before the office of the public prosecutor and the requisite preliminary investigation is conducted. If and when there is a finding of probable cause engendering a well-founded belief that a crime has been committed as determined by the public prosecutor, this officer will make a resolution to that effect and consequently the appropriate information will be filed in court. Once the accused is arraigned and all the issues are joined, then the court takes cognizance of the case and the same will exercise jurisdiction over it. Most of the time, the prosecution fails because of technicalities, not necessarily on the merits of the case. Lack of understanding and thorough knowledge of criminal procedures is one of the reasons why most of the cases filed in the lower courts are dismissed and never reach the Supreme Court. Based on feedback from the field, a handful of court judges and prosecutors are not fully cognizant of forestry laws and regulations. Hence, the designation of 'green courts' by the judiciary helps to address such problems. The green courts are judicial bodies or tribunals specially designated to act exclusively on illegal logging and other forestry-related offences, including violations of environmental laws in general.

Table 1 summarizes cases filed from 2001 until 2008.

Table 1. Cases filed in Philippine courts between 2001 and 2008²

Status	Total	2008	2007	2006	2005	2004	2003	2002	2001
Total	1 852	181	142	214	314	319	231	223	228
Convicted/Imprisonment of 6 months	36		2	6	3	9	2	5	9
Recommended for criminal complaint	4	1			2	1			
For indictment according to court resolution	31			23	1	1	6		
For arraignment and pre-trial	11	1		1	1	3	5		
Order of detention	2	1				1			
Inquested at the regional trial court	27	19			4	3	1		
Dismissed	78	1	2	11	10	13	16	20	5
For dismissal	5				2			3	
Probationary dismissal	4				1			3	
Under court litigation/trial/hearing ongoing/preliminary hearing	1 233	154	117	132	187	211	106	149	177
Filed at provincial prosecutor's office	93		10		23	17	43		
For resolution	34	3	3	4	4	6	8	6	
Archived	18			1	1		14	1	1
For filing	96	1		3	13	2	5	36	36
Pending at public prosecutor's office	179		7	33	62	52	25		
Decided	1		1						

Recovery

Under existing guidelines, seizure and confiscation orders are issued for the apprehension, seizure and confiscation of illegally cut, gathered, or transported forest products. After a seizure hearing and the seizure officer finds that an offence has been committed, a confiscation order will be issued accordingly. However, after an administrative investigation has ruled that forestry laws, rules and regulations have been violated by the offender, a Forfeiture Order will be issued and all the properties subject to the administrative adjudication proceedings become government property. The forfeited contraband will then be turned over to the government corporate arm of the DENR known as the Natural Resources Development Corporation (NDRC) for proper disposal.

Regarding money laundering, the Anti-Money Laundering Act of 2001 (AMLA) was passed by the Philippine Congress on 29 September 2001; the agency responsible for implementing AMLA is the Anti-Money Laundering Council (AMLC). The primary focus of AMLA is money deposited in a bank that could be the profit or result of a crime. Action is taken when unusually

² **Planning and Policy Service Office (DENR)**. 2009. *Summary status of cases filed: 2001-2008*. Quezon City, Philippines, DENR.

large and complex transactions in excess of PhP4 000 000 (US\$87 527) are identified or if cash deposits and investments have no credible purpose or origin, underlying trade obligations or contracts. A depositor will have to show proof of the legal source of the money. If this is not done, the money is presumed to be laundered and the same may be subjected to freezing, litigation, or forfeiture by the government.

Money generated from illicit timber trading or associated activities is considered to be a conduit for money laundering. However, illegal logging is not one of the predicate crimes under AMLA.

Forest governance (non-law enforcement)

Accountability, transparency, public disclosure, respect for customary rights and participation of stakeholders are notable features of FLEG in the Philippines.

Accountability: Public servants and their actions are governed by law and the implementing guidelines imposed by the Civil Service Commission. If a government employee fails to discharge his/her duties and responsibilities accordingly, he/she will be sanctioned in accordance with existing Civil Service rules and regulations.

Transparency and public disclosure: The DENR has specific guidelines on disclosure of information. Under DENR Administrative Order No. 1997-24 (Disclosure Policy), government documents and other printed materials including written communications are classified as public documents for general or limited circulation, restricted documents and confidential or top secret documents.

Stakeholder participation and customary rights: Participation in FLEG by various stakeholders is guaranteed. Use of forest lands requires public consultation and public hearings especially for forestry activities in ancestral lands (Republic Act No. 8371 – Indigenous Peoples’ Rights Act). Free and prior informed consent (FPIC) is necessary when undertaking resource extraction and other development work within ancestral lands and domains. Indigenous peoples are also accorded other rights to extract timber resources as part of their traditional practices.

The approval of local government units (LGUs) is also sought before the implementation of any forestry-related project or programme. LGUs are collaborative partners in protecting and conserving the country’s natural resources. They play a major role in protected areas and in the implementation of community-based forest management programmes.

One major area of concern that requires further action are unscrupulous groups involved in natural resource extraction who circumvent the law by obtaining questionable FPIC from local communities. Ultimately, the local communities are deprived of the benefits that ought to come from such projects.

Comments and conclusions

Timber and timber products leaving the country must be accompanied by valid and authentic documents at all times. These include cutting permits/authorization, transport certificates, export authorization and compliance with the requirements of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The DENR has implementing rules and regulations and guidelines for all transactions of forest products ranging from cutting or harvesting up to transporting and marketing, including export. However, there is a need to resolve and harmonize incoherent or otherwise inconsistent policies and streamline the procedures and other transactions within the bureaucracy. Collaborative efforts with other law enforcement agencies should be made and the same must be strengthened through strategic alliances and linkages. The lack of human resources for protecting vast tracts of forest lands can be augmented by deputizing environment and natural resource officers. The creation of more MFPCs will widen the coverage of forest law enforcement. In addition, existing systems entrenched in various government offices must be enhanced to become attuned to the changing times. Mechanisms to curb corruption must also be in place and vulnerabilities to corrupt practices identified in different government agencies and instruments. The government should not only focus on preventing money laundering and penalizing law breakers. Initiatives should also be made to consider illegal logging as one of the predicate crimes under the anti-money laundering law. The long-awaited legislative bill on sustainable forest management should be passed into law to replace older versions.

Efficient and effective law enforcement measures coupled with good governance will be the key to combating illegal logging and other forestry-related offences. The Philippines may not be making major headway in its pursuit to resolve problems related to FLEG, but it is certainly inching its way towards attaining the desired results and outcomes through concrete measures aligned with national goals and objectives.

Forest law enforcement and governance in the Solomon Islands

Kedson Ago¹

Summary

The forest resource and timber industry in the Solomon Islands is regulated and governed under the provisions of the Forest Resource and Timber Utilization Act (FRTUA) 1969. The FRTUA mandated the appointment of the Commissioner of Forest (CoF), who is the custodian of the FRTUA, to enforce its provisions to manage forest resources. The National Forest Policy, strategies and programmes were formulated and implemented under the provisions of this act. Under the National Forest Regulation, forest resources are owned by customary resource owners or landowners so the CoF can only facilitate and regulate forest activities and developments with limited legal authority to decide on the development activities to be undertaken.

This National Forest Regulation has undergone several reviews and screenings, but it has not changed its focus and vision for the future of forestry in the country. This has generated many hardships and hampered the National Forest Authority in implementing strategic development and changes for the purpose of adopting sustainable forest management.

Hence, with the limited legal power of the National Forest Authority over the management of forest, unsuitable utilization and improper harvesting practices prevail, especially with the influx of Asian logging companies. Currently, the Solomon Islands exports more than 1 million m³ of round logs per year, which is four times more than the sustainable rate of 250 000 m³ per year. With this rate of harvesting, natural commercial forest will be completely depleted by 2013.

The Solomon Islands need pro-active, effective policies and logistics with enhanced capacity to adopt and implement changes to national forest laws and activities. This needs full support from policy-makers, stakeholders and resource owners.

Thematic elements

Enabling conditions

There have been several reviews of the Forest Resource and Timber Utilization Act (FRTUA) to evolve better regulatory practices in the timber industry. Regarding subsidiary regulations, a Standard Logging Agreement, Logging Code of Practice and licensing and marketing procedures have been formulated.

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The Ministry of Forest (MoF) has identified four main areas of focus under its Medium-term Development Strategies:

- Forest plantation development and reforestation.
- Forest resource policy, planning and management.
- Sustainable forest utilization and downstream processing.
- Forest conservation management.

In the context of institutional arrangements, the MoF has been expanded with the creation of five new divisions:

1. Forest Plantation Development and Reforestation Division.
2. Forest Resource Management and Technical Services Division.
3. National Herbarium and Botanical Garden Division.
4. Forest Industries and Utilization Division.
5. The Corporate Services Division.

The MoF collaborates with forestry stakeholders, NGOs and other government agencies such as the Climate Change Office. It provides extension services and has made efforts to decentralize activities through the establishment of outstations and forestry extension units to reach resource owners and the rural population. Awareness raising and advocacy are carried out via the MoF's newsletter and radio broadcasts.

Forestry officers' technical and management skills are enhanced via training provided by the MoF, forestry colleges, universities and government training institutions for public administration.

The Solomon Islands is signatory to the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity. It adheres to the Clean Development Mechanism (CDM) of the Kyoto Protocol as well as the precepts of the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD). Thus, the Solomon Islands is legally obligated to adopt international standards.

Prevention

Prevention measures include regulations under the FRTUA and delegation of legal responsibility to provincial and community institutions. The MoF has established a Timber Harvesting Operation Section to monitor, evaluate and enforce forestry requirements. Similarly, community forest monitors, known as timber controllers, represent landowners. Also in the monitoring context, the MoF collaborates with government agencies related to customs and excise, immigration, labour and quarantine as well as the Central Bank and the police force to inspect logging company operations, organization and marketing thrusts. Communities are given training on vigilance *vis-à-vis* forest crimes and awareness is raised on the importance of this issue. NGO activity is checked regularly.

Detection

Detection is implemented via monitoring by forest field officers (with surprise and routine inspections) and by landowner groups. The MoF also receives reports from community and church leaders. Otherwise, cargo declarations are screened and loading of ships is supervised by forestry and customs/excise officers.

Suppression

Forest officers are empowered to enter any operation and access files and records. Police, customs/excise and other government officers shall act on their own initiative but must report to the Commissioner of Forest (CoF) for action to be taken. The CoF has the power to cancel or suspend any illegal operation and take possession of any assets or products. The CoF can also hold any consignment of logs for sale until it has been cleared. Forestry crimes have heavy penalties under the FRTUA but crimes are not well-investigated and reported.

Investigation

Investigation of forestry crimes is the responsibility of forestry officers. Field officers usually report incidents and the CoF sends other officers to investigate further. Sometimes under-reporting occurs due to pressure from other more powerful groups or agencies. The MoF also has a Legal Officer and an Enforcement Section to undertake investigation regarding the legality of dubious activities. When the common law is violated, the police also participate as well as other authorities. Forest officers are afforded protection while conducting official duties.

Prosecution

All violations of the FRTUA shall be addressed by the CoF and where appropriate submitted to court of law for prosecution. The defendants must be represented and a trial conducted (depending on the nature of the crime). Eighty percent of logging activities have to seek legal clarification as ownership is vested in the resource owners.

Legal instruments exist to deal with forestry matters such as the Timber Right Acquisition Process and the Customary Land Appeal Court, as well as the Chief Hearing. Usually they can easily solve problems and disputes that arise. They are frequently forwarded to higher courts like the Magistrate and the High Court.

Logging has been prevalent in the country for more the five decades but the legal system addresses logging disputes even though they may be very complex. The independence of the judiciary is always upheld.

Recovery

Seizure of stolen assets is managed by the FRTUA and the CoF has the power to confiscate and recover stolen assets. However, the current structure of the MoF makes it difficult to implement this. Customs/excise and the police also assist. There is a need for the MoF to establish mechanisms to monitor and recover stolen assets. Entry and departure of ships is

monitored by customs/excise and quarantine officers but sometimes forestry assets and products are overlooked.

Forest governance (non-law enforcement)

Forest governance has been the sole responsibility of the MoF but its low enforcement capacity has been a constraint. The Solomon Islands receives 70 percent of its foreign revenue from the timber industry, which receives considerable national attention. With weak legal backing and insufficient capacity, the MoF has experienced considerable difficulty in implementing policies and programmes to manage forest resources sustainably.

Forests are owned by local communities (regarded as landowners) so they can develop their resources at their own discretion. Timber royalties are paid directly to rural people but some of them have little knowledge and few skills in forest management. This generates social and economic problems for local people, so instead of improving their livelihoods, they become worse off than before. Logging is always a hot issue in local politics as well as nationwide.

Since the start of the new millennium, changes and improvement in the forest sector have been evident. There is wider consultation and stakeholders have started to actively participate in the forestry sector. The Ministry of Environment is implementing its standards which are being adopted by the forestry sector. Also NGO and civil society groups actively participate in awareness raising and advocacy. More impact is observed from the regional and international arena through the adoption of conventions and treaties. Donor partners also emphasize sustainability and enhanced livelihoods with more concern on environmental issues. These initiatives put pressure on the forestry sector to improve management of national forests.

Logistics and capacity in better governance have improved with the introduction of the Regional Assistance Mission to Solomon Islands (RAMSI). RAMSI has provided considerable support to improve governance and law enforcement in all government sectors. These are drivers of change that needs to be improved and incorporated into the further governance of resources in the Solomon Islands.

Monitoring and reporting

Forestry is the largest economic sector in the Solomon Islands. It accounts for 70 percent of all foreign revenue and 17 percent of the national economy. Being the single largest economic contributor, there is national interest to sustain production. However, monitoring reports show that harvesting exceeds the sustainable rate alarmingly (Figure 1).

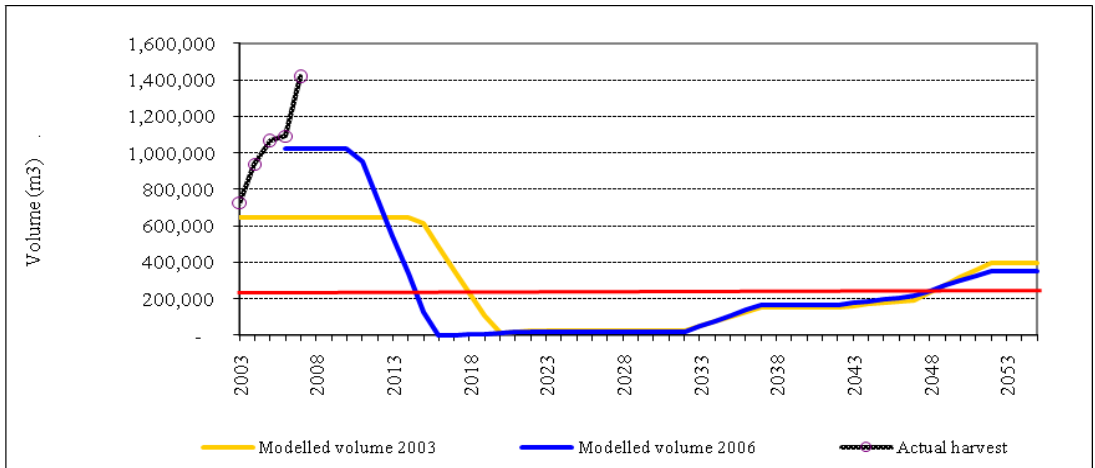


Figure 1. Modeled harvesting volumes and actual harvest in the Solomon Islands

Comments and conclusion

The forest and timber industry is one of the oldest industries serving the Solomon Islands since the years of colonization through to independence and now into the new millennium. It has provided livelihoods for generations over time. It still generates enormous economic benefits for the Solomon Islands.

Sadly, the future is looking bleak. Recent data analysis indicates a downturn towards complete exhaustion of the timber industry. As early as 2011, production and revenue from the industry could drop dramatically and this would severely affect the national economy.

To address this issue the MoF is vigorously pursuing forestry development strategies, programmes and projects to sustainably utilize the remaining natural forest and well as conserving special forests for non-wood forest product generation. This is a strategy that requires the full commitment of the national government, resource owners, provincial governments, NGOs and international friends and donors.

Forest law enforcement and governance in Sri Lanka

Wasantha Dissanayake¹

Summary

The Forest Ordinance No. 16 of 1907 is the cornerstone of the present law relating to forests and plant protection in Sri Lanka. The ordinance vests the Forest Department with the jurisdiction for managing forest reserves as well as conservation forests in the form of protected areas and also regulated access to other forests on state lands. The Fauna and Flora Protection Ordinance, No. 2 of 1937, vests the Department of Wildlife Conservation (DWLC) with jurisdiction over declared protected areas and listed species of fauna and flora.

The National Forest Policy of 1995 emphasizes conservation, especially of natural forests. It expresses concerns for safeguarding remaining natural forests for posterity in order to conserve biodiversity, soil and water resources.

When compared with other Asian countries, the dependency of peripheral communities on forests as a means of livelihood is lower in Sri Lanka. There are no forest-dwelling communities and those who are living around the forests are primarily dependent on agriculture. Although households extract non-wood forest products from the forests for subsistence purposes, commercial extraction is limited to certain forest products and localities.

Average forest crime incidence is at a very low level compared to many other developing countries. Rural people extract certain forest products for subsistence purposes and sometimes encroach into forest lands for shifting cultivation. Organized commercial-scale timber theft from government forests is very low.

State authorities have taken several measures to prevent and combat forest crimes. In addition to the more conventional methods such as strengthening patrolling and surveillance by forest officers and permit requirements for storing or transporting timber, some new concepts have been put in place. They include imposing a moratorium on commercial extraction of timber from natural forests, survey and demarcation of forest boundaries and preparation of strategic and local level forest management plans in consultation with all stakeholders. Involvement of local people and other stakeholders is considered a vital component in this context.

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Thematic elements

Enabling conditions

National and subnational legislative and regulatory frameworks, including forest law enforcement strategies and implementation programmes

The Forest Ordinance No. 16 of 1907 is the cornerstone of the present law relating to forests and plant protection in Sri Lanka. The ordinance vests the Forest Department with jurisdiction for managing forest reserves as well as conservation forests in the form of protected areas and also regulates access to other forests on state lands. The Minister of Forestry is empowered by the Forest Ordinance to make rules and regulations. Illegal activities are defined as activities that are absolutely prohibited within a designated area; orthodox activities may be carried out with authorization.

Since its enactment, the ordinance has been amended many times, to meet specific needs, but its original scheme and structure have remained unchanged. The law specifies the penalties for illegal activities. These penalties have been increased periodically.

The Forest Ordinance was not fully conservation oriented; this was identified as a problem because of the need to conserve indigenous flora and fauna and important ecosystems. Partly to overcome this weakness, the National Heritage Wilderness Area Act No. 3 was passed in 1988. This act aims at the protection of state lands with unique ecosystems, genetic resources or outstanding natural features. It is administered by the Forest Department as well.

The Fauna and Flora Protection Ordinance No. 2 of 1937, vests the Department of Wildlife Conservation (DWLC) with jurisdiction over declared protected areas and listed species of fauna and flora. The ordinance and subsequent amendments make provisions for the protection of wildlife and fauna in national reserves. The law emphasizes regulation and lists many prohibited activities and protected species.

The National Environmental Act (NEA) mandates the Central Environmental Authority (CEA) to implement certain rules and regulations pertaining to the environmental protection of the country. With regard to the forestry sector, the NEA mandates the implementation of environmental assessment for certain activities especially with regard to the extraction of timber.

The State Lands Ordinance and the Land Development Ordinance regulate state land in general and the alienation of state land in particular.

Forest policies that address the implementation of forest law enforcement and governance

The current Constitution of Sri Lanka, adopted in 1978, includes a special statement that indicates, “The State shall protect, preserve and improve the environment for the benefit of the community”.

The National Forest Policy of 1995 emphasizes conservation, especially of natural forests. It expresses concerns for safeguarding the remaining natural forests for posterity in order to conserve biodiversity, soil and water resources.

A major policy decision towards conservation of natural forests was undertaken by the government in 1990 by imposing a moratorium on commercial extraction of timber in the Wet Zone's natural forests, which was subsequently extended to natural forests in other areas of the island. However, this decision needs to be legally binding.

While retaining the present natural forest cover, the policy emphasizes the need to increase tree cover. Multiple-use forestry is to be promoted, and forests outside the protected area system should be used sustainably to meet the growing demand for bioenergy, wood and non-wood forest products (NWFPs) and various services, especially for rural people, while ensuring that environmental objectives are also met. The policy recognizes that home gardens and other agroforestry systems, and trees on other non-forest land, have a crucial role in supplying timber, bioenergy and NWFPs.

The policy also recognizes that state agencies alone cannot protect and manage the forests effectively. People's participation in forestry development and conservation is to be promoted. The policy emphasizes the need to develop partnerships with local people, communities, NGOs and other local groups outside the state sector. It also aims at broadening the institutional framework for forest management, with clearly defined roles and responsibilities for the various partners. Farmers, community organizations, NGOs and small-and medium-scale commercial enterprises should all have a role in activities such as protecting forests, growing trees to meet household needs, supplying raw material for wood-based industries, harvesting, transporting, processing and distribution of various forest products.

Institutional framework and intra- and interagency cooperation

The primary statutory authorities in relation to the forest sector in Sri Lanka are the Forest Department, the DWLC and the Land Commissioner's Department.

The total land area under the jurisdiction of the Forest Department is estimated at approximately 12 708 km² (Ministry of Agriculture, Lands and Forestry 1995) – 19.4 percent of the total land area of the island. The DWLC has responsibility over 6 714 km² of protected areas, or 10.2 percent of the total land area. Forest resources owned by other groups are negligible (FAO 2009).

The territorial administration of the Forest Department follows a strict hierarchical order, starting from 'regions' and followed by 'divisions', 'ranges' and 'beats'. The country consists of 25 administrative districts, and with the exception of the districts of Jaffna, Mullativu, Mannar, Kilinochchi in the north and Colombo, all other administrative districts are declared as forestry divisions and follow their boundaries.

The DWLC is responsible for the enforcement of the Fauna and Flora Protection Ordinance and for the operation and management of the national parks, strict natural reserves, natural reserves, jungle corridors and sanctuaries. Field operations have been organized into five regions each under an assistant director. National parks, which attract many wildlife

enthusiasts, are managed by park wardens with a team of officers consisting of a few rangers and several beat officers as well as support staff. Fewer field staff are assigned to manage other categories of protected areas.

Both the Forest Department and the DWLC come under the Ministry of Environment and Natural Resources of the central government. Another important institution coming under this ministry is the CEA.

The NEA mandates the CEA to recommend a system of rational exploitation of forest resources, together with a system for the encouragement of people's participation in conservation to the Ministry of Finance to keep the country's forest resources at maximum productivity and to maintain management of forest occupancy; however, no such steps have been taken so far by the CEA. The role of the CEA in the forestry sector is confined particularly to the implementation of environmental impact assessment (EIA) or initial environmental examination for certain activities that include the extraction of timber covering a land area exceeding 5 hectares and conversion of forests covering an area exceeding 1 hectare for non-forest use.

Having all major institutions that address forestry operations under the umbrella of a single ministry has resulted in strong coordination among these agencies, especially at the upper level. However, at the field level, this coordination appears to be diluted to a certain extent, presumably due to the area-based responsibility vested in the institutions.

Beneath Parliament are provincial councils, some having established provincial ministries of environment and agencies to manage land within their respective provinces. However, there are no provincial institutions that deal with forestry issues directly.

The forestry administration maintains links with other local administration bodies, especially with divisional secretaries who play a vital role in granting permission for the felling of some tree species which have high food value. They also grant transport permits for many timber species originating from private lands. In both cases this is done with the collaboration of the Forest Department.

Divisional secretaries, police officers as well as other agency staff have been designated as 'forest officers' to implement certain activities under the Forest Ordinance, especially with regard to the control of timber theft. Police assistance is considered to be the most vital element in forest protection and law enforcement endeavours.

A special coordinating body, the Forest Protection Core Group, operates in each district and is chaired by district secretaries (also known as government agents). Forest protection activities in districts are reviewed at district core-group meetings with the participation of all state agencies as well as NGOs concerned with the environment and forest conservation.

During the last few decades, the institutional infrastructure of forestry administration has been expanded and it has been decentralized to a certain extent.

Institutional capacities

The Forest Department is the primary state institution responsible for the management, protection and the development of forest resources. Currently it has 2 576 permanent employees.

The territorial units of the Forest Department and the officers responsible for the implementation of field activities are listed below in hierarchical order.

Forest regions: For the purpose of decentralized forest administration, the island is divided into four forest regions, each covering two or three provinces. Forest regions are headed by regional deputy conservators of forests.

Forestry divisions: All administrative districts, except Colombo and a few districts affected by the civil war in the Northern Province, are designated as forestry divisions. They are headed by divisional forest officers.

Forest ranges: Forestry divisions are divided into ranges which are under the control of range forest officers. The forest range is the primary functional unit for the implementation of all forestry operations. Approximately eight to ten field officers are attached to the range forest office to assist the range forest officer in different disciplines.

Forest beats and field assistant units: The beat used to be the smallest unit of forestry administration until recently, and was headed by a beat forest officer. With the restructuring system introduced in 2008, the forest field assistant (FFA) became the smallest unit, and three to four FFA units form a beat. To date, approximately 550 FFA units have been formed to cover the entire country.

In addition to the territorial field staff, two law enforcement units, namely flying squad units and permanent timber checking stations, function under the Forest Department with the primary objective of combating illicit timber felling and transport. Five flying squad units and five permanent timber-checking stations function at the moment.

Similar to the other fully government-controlled departments, the Forest Department also receives all its financial requirements through the government treasury according to the annual budget provisions approved by Parliament. Revenue collected by the department is remitted to the consolidated fund operating in the treasury.

Forest Department budget details for the fiscal year 2008 (Forest Department 2009) were:

- Recurrent expenditure (salaries and other payments): LKR687 460 000.
- Capital expenditure (rehabilitation and improvement of capital assets): LKR245 000 000.²

¹ US\$1.00 = LKR114.570 (March 2010).

Allocations provided in the estimate for donor-funded capital projects for the fiscal year 2008 (Forest Department 2009) were:

- Natural Resources Management Project (AusAID): LKR190 000 000.
- Global Environment Facility Project (World Bank): LKR8 000 000.

A similar system applies for the DWLC. The budgetary provisions for its recurrent expenditure are somewhat lower than that of the Forest Department owing to the comparatively lower number of staff. In the fiscal year 2008, the total provision for recurrent expenditure was LKR363 760 000. However, the capital budgetary provision for the same year was much higher than that of the Forest Department (LKR998 550 000). Considerable funds have been allocated to the DWLC in the recent past for the conservation of wild elephants.

General development context (rural poverty situation)

The Department of Census and Statistics of Sri Lanka, under the National Household Survey Program, has conducted a Household Income and Expenditure Survey (HIES) once every five years since 1980. The latest survey conducted for the period 2006-2007, estimated LKR2 223 (approximately US\$20) real expenditure per person per month as the Current Official Poverty Line (OPL). The basic measure of poverty is the size of the poor population which falls below the poverty line and the same applies to the incidence of poverty by the Poverty Headcount Index (HCI or PO) as a percentage of the total population. As a result of this survey, the HCI for Sri Lanka for the period 2006-2007 was 15.2 percent (2.8 million persons).

Poverty reduction has been one of the key focus areas in Sri Lanka's development agenda over the years. The HCI has been declining over time. As the HCI for the whole country for 2002 was 22.7 percent, the 2007 figure is a remarkable improvement.

Poverty is a significant issue in most of the remote areas of the country, which are peripheral to natural forests. Lack of access to social services, infrastructure and employment opportunities marginalize such households. Even within a community, income distribution is quite inequitable.

When compared with other Asian countries, the dependency of peripheral communities on forests, as a means of livelihood, is lower in Sri Lanka. There are no forest-dwelling communities and those who live around forests are also primarily dependent on agriculture. Although households extract NWFPs from the forests for subsistence purposes, commercial extraction is limited to certain forest products and localities. However, some agriculturally dependent households (especially in the dry zone of the country) are engaged in commercial and subsistence agriculture in cleared forest lands through shifting cultivation.

Signatory to United Nations' conventions on transnational organized crime and corruption

Sri Lanka was among 124 of the United Nations' 189 member states which signed the UN Convention on Transnational Organized Crime and Corruption on its inception. It was also among the 80 states that signed the convention's two accompanying protocols: One to

prevent, suppress and punish trafficking by persons and the other against the smuggling of migrants by land, sea and air.

Furthermore, the government is committed to the implementation of many international conventions on environmental protection. Among them are the Convention on Biological Diversity (1992), the Cartagena Protocol on Biosafety (1994), the Convention on International Trade in Endangered Species (2005), the United Nations Framework Convention on Climate Change (1992) and the Kyoto Protocol (2002). The implementation of these conventions has direct impact on the forestry sector (FAO 2009).

Prevention

Crime prevention strategies and security risk management

Average forest crime incidence in Sri Lanka is at a very low level compared to many other developing countries. Rural people living in close proximity to forests extract certain forest products for subsistence purposes and sometimes encroach into forest lands for shifting cultivation. Organized commercial-scale timber theft from state forests is very low.

The Forest Department is undertaking several measures to prevent the occurrence of forest crimes in the island. Its entire field staff, from divisional forest officers down to forest field assistants, is responsible for preventing forest offences in their respective territorial units.

Divisional forest officers are expected to prepare strategic plans for the efficient management of forest resources in their respective divisions with the collaboration of range forest officers and their subordinate staff. These plans are prepared range-wise and have two components: forest protection and resource development. Planning is done through a participatory process with the involvement of the entire range staff. Forest areas are ranked according to their vulnerability to forest crimes and preventive measures are proposed based on the nature as well as the intensity of threats. Involvement of local people via awareness raising is considered to be one of the major strategies in this context.

Survey and boundary demarcation of forest areas have been carried out by the Forest Department during the recent past under various donor-funded projects. This was further intensified under the recently concluded Asian Development Bank-funded Forest Resource Management Project. Since 2001, about 15 000 kilometres of forest boundaries have been surveyed and demarcated on the ground using concrete posts. This exercise is done especially to prevent forest land encroachment.

In discharging powers vested in the Forest Ordinance, forest officers should be concerned with personal safety and also with the safety of others who are associated with them. Firearms have been issued to forest officers solely for this purpose. They are provided with relevant training on handling firearms as well as the rules and regulations governing their use. This training is done in consultation with the appropriate authorities. No officer is entitled to use a firearm without a valid Watcher Permit issued by the Conservator General of Forests for the current year.

Timber theft prevention plans at national, subnational, administrative and local levels

All forest officers at the field level are required to conduct regular patrolling, surveillance of forest areas and other relevant measures to prevent forest crimes within their respective territorial units. However, this kind of activity alone cannot control forest crimes, especially timber theft from government forests, mainly due to the limited number of staff deployed for this purpose. Hence, other measures are being imposed to control such incidents.

Section 24 of the Forest Ordinance empowers the Ministry of Finance to make regulations regarding the transport of all forest produce by land or water. Transport permits issued by a competent officer have been made obligatory for transport of certain timber species extracted from private or leasehold government lands. Heavy fines, including the possible confiscation of vehicles, are imposed by the court of law in the event of violation of this law.

The divisional secretary of the respective area, having obtained the recommendation of the Forest Department as well as upon verifying the landownership, issues transport permits for the timber extracted in private lands. The authorization for the transport of about 14 very rare and valuable species is done by the divisional forest officers and the permits are issued by the range forest officers. However, certain timber species, which are usually grown in private lands, do not require permits to be transported island-wide or in certain administrative districts.

Timber-checking stations at strategic locations have been established and are in operation around the clock to check vehicles transporting timber. Five such stations are functioning under the Forest Department at the moment. Although the number of illicit transport cases recorded by these checking stations is very low, many other irregularities pertaining to the issue of permits have been checked and detected.

Section 28 of the Forest Ordinance empowers the Ministry of Finance to make regulations with regard to the establishment and functioning of private timber depots. Consequently, it is mandatory under the Forest Ordinance to register all kinds of timber-based industries, including sawmills, timber sales outlets, as well as carpentry sheds or furniture shops, under the Forest Department. Requests to register timber-based industries within a short distance of a forest boundary are not entertained.

Section 28 (1) of the Forest Ordinance empowers forest officers not below the rank of range forest officer to enter a private timber depot or shed to investigate and remove unstamped and unmarked timber, converted from logs not brought on transport permits. Such timber is liable for further action under the provisions of Chapter VI of the ordinance. If timber species that do not require transport permits are found, officers should ascertain whether they have been felled in government or private lands. Police as well as divisional secretaries (who are designated as forest officers under the Forest Ordinance) are also empowered to execute the same action.

Permission of the Conservator General of Forests should be obtained in all cases of the export of timber or any forest produce. Any person applying for such a permit should be able to prove that the product has not been extracted from a government forest and has been obtained

from private land. However, permission is not usually granted for the export of raw or semi-processed timber.

Knowledge of security management and crime prevention techniques

Forest officers, especially those who are involved directly with law enforcement activities, possess adequate knowledge on this subject. The Forest Department regularly conducts training courses for its own staff members as well as for officers in other government agencies who are involved with forest protection activities. During 2008, 31 such awareness courses were conducted for forest officers on law enforcement involving 338 participants. Four weapon-training courses were also conducted with the assistance of police training schools for 28 forest officers. In the same year, five courses involving 220 police officers, 18 courses involving 469 divisional secretary staff and 352 courses involving other government officials were conducted to raise awareness on forest law enforcement activities (Forest Department 2009).

Community awareness programmes

The importance of natural forest cover, especially in relation to its environmental significance, is well-understood by the general public. Increasingly being presented in school curricula, the environmental significance of forests has also been felt at the primary level of society. In certain instances, farmer communities have protested against the logging of even mature forest plantations in the vicinity of their cultivated lands.

The Forest Department is continuously conducting many types of awareness events on the importance of forests and their environmental services for the public. In 2008, 1 366 events were carried out by the Forest Department in the form of lectures, seminars, workshops, video shows and tree-planting campaigns (Forest Department 2009).

Sustainable forest management

As mentioned earlier, wood harvesting from natural forests has been completely stopped since 1990. Hence, forest plantations belonging to the Forest Department have become the major source of wood supply from state lands. In addition, home gardens, and rubber, tea and coconut plantations in the plantation sector provide timber and other wood products to meet national demand in significant quantities.

The Sri Lankan economy has been growing favourably since the 1980s. Fairly rapid economic growth, coupled with population increase, has resulted in increasing demand for sawnwood, panels, paper and other industrial forest products, as well as industrial roundwood. Sawnwood demand is projected to grow from 0.544 million m³ in 1993 to 0.885 million m³ by 2020 (Ministry of Agriculture and Natural Resources 1995). In spite of these developments, Sri Lanka is still almost self-sufficient in sawnwood. Imports of sawnwood and roundwood, which are the most important wood products, are still at a low level compared to the local supply.

Detection

Monitoring of forest crime trends, including community reports and surprise inspections

Information provided by the general public, especially those who are living close to forest areas, assists considerably in detecting forest crimes. Range forest officers and their subordinate staff are expected to maintain a close relationship with the general public to receive such information. Rural environmental NGOs, community-based organizations as well as youth groups are increasingly involved in providing such information to field-level forest officials to combat forest-related offences.

Information provided by the general public is sometimes anonymous written complaints or telephone calls directed to the heads or senior officials of forest or wildlife departments or sometimes to the Ministry of Finance. Information and complaints received through telephone calls have increased remarkably in the recent past with improved and low cost communication networks. A special 4-digit telephone number is also provided at the Ministry of Environment and Natural Resources to receive such complaints. All the complaints or information received are immediately investigated mostly through field-level officials or the forest protection flying squads depending on the nature of the offence reported.

Physical and technical surveillance

Beat forest officers, forestry field assistants, plantation watchers and permanent labourers are entrusted with protection work. They should undertake surveillance of the assigned areas to detect or prevent forest crimes. Each officer who patrols or inspects a forest area should keep a detailed record in official diaries. If any offence is detected, in addition to taking necessary follow-up action, it should be reported immediately to the superior officers.

There are five special timber-checking stations established by the Forest Department in strategically important locations solely for the purpose of checking the vehicles transporting timber and other wood products. All vehicles transporting timber or allied products are subject to checks at these stations to verify the authenticity of the transport permit as well as the timber species and quantity, including measurements.

In addition to the timber-checking stations, forest as well as police officials are usually involved in checking timber-transporting vehicles on the road while in transit. They have been empowered by the Forest Ordinance to stop and check any vehicle transporting timber or any other forest produce.

As mentioned earlier, forest officers are empowered to enter and check timber depots or any other premises stored with timber. Most commercial timber sales outlets are regularly checked by forest officers to detect illicit timber or forest produce.

Intelligence sources and informant networks, as well as reward systems for information provided

All field-level forest officers are expected to build a close rapport with the public in general and environmental NGOs or community-based organizations in particular to receive information related to forest crime incidents. In addition, most of the field-level officers have developed their own networks of informants through which they receive secret information related to forest crimes especially with regard to illicit felling or illegal timber transport incidents.

The Forest Department is maintaining a 'Forest Department Fund' (popularly known as the 'Reward Fund') for appreciating the work done by forest officers involved in law enforcement. The fund receives money from fines imposed on forest offences by a court of law. Between 50 and 80 percent of the amount fined will be credited to the Forest Department Fund. Once the court cases are finalized, the range forest officer should make the recommendations to the divisional forest officer to pay rewards to those officers involved in detection, investigation and prosecution of the case.

Informants who are not employees of the Forest Department may also be paid a reward based on the accuracy of the information on forest crimes that they provide. In the event of paying reward money to an informant without disclosing his/her identity, the authorities should be convinced that the raid was carried out on the informant's information and an effective mechanism is used to hand over the reward money to the informant without disclosing his/her identity.

In 2008, reward payments of LKR2 562 340 were distributed among 1 147 officers and 74 informants for detection of forest crimes, the perpetrators of which were convicted by the court (Forest Department 2009).

Suppression

Forest crime information management systems

Traditionally the Forest Department has had a well-defined system for maintaining forest crime records. Each range forest officer maintains a forest offence record book and a copy is kept at the divisional forest office. It is mandatory to enter and update all forest offences detected within the range in the record book, including the current progress of the court cases. These records are periodically checked by senior officials and any shortcomings or irregularities are identified for correction.

A monthly extract of forest offence records is sent by all range forest officers via e-mail to the Forest Department headquarters with a copy to the divisional forest officer of the division and regional deputy conservator of the region concerned. This report includes a summary of forest offences recorded during the month, as well as the current situation of all previous forest offence records which are still pending. This system enables the Forest Department to have the latest information related to forest crimes recorded over the entire island. In addition, any shortcomings or irregularities at the range level can also be addressed without delay.

Access to records on criminal forest offences

The Forest Department's information on forest offences can be extracted using the monthly reports of range forest officers and can be made available upon request. In addition, summarized data are published in the annual administrative reports of the department.

Forest crimes recorded by other agencies, especially police and divisional secretaries are also recorded in the range forest offices of the Forest Department. Crimes related to timber theft are always referred to range forest officers for expert advice on species identification and valuation purposes. However, at present, there is no proper system for collating this information at the national or regional level.

Adequacy and effectiveness of administrative and criminal penalties

The Forest Ordinance is now undergoing further revision to strengthen its provisions for conservation. During the last amendment in 1995, it improved enforcement measures and raised penalties for forest offences. Mandatory imprisonment for certain offences, especially when committed in conservation forests, is in force now. Most forest officers believe that the present penalties are quite adequate.

Clarifying the roles and responsibilities of the military, police and other public security agencies

The Ministry of Finance through Gazette notification has delegated powers of the Forest Ordinance to officials other than forest officers with respect to powers given to him by Section 64 of the Forest Ordinance. Police officers have also been empowered to execute certain forest crime prevention actions in relation to timber theft.

However, the military or any other public security agencies are not empowered in this regard.

Investigation

Investigation planning and monitoring programmes for forest law enforcement officers

Forest officers are provided with thorough in-service training on forest law enforcement, including investigation planning and monitoring. This is an integral part of their formal training programmes conducted at the Sri Lanka Forestry Institute. In addition, various short-term special training programmes are also conducted from time to time to improve their knowledge. As a result, most of the field-level forest officers possess sound knowledge of forest protection and law enforcement activities. As and when necessary they obtain legal advice from the legal officer attached to the department as well as from the Attorney General's Department.

Other government officials (i.e. the police, divisional secretaries) are provided with similar short-term training by the Forest Department frequently.

Prosecution

Chain of evidence

Forest officers are expected to file and conduct cases in the magistrate courts as part of the law enforcement process. For prosecution, they have to produce evidence for which provisions of the Evidence Ordinance should be followed.

When a forest crime is being recorded a new dossier should be opened, where the report of the officer who detected the crime or conducted the raid, sketch maps of the location, statements made by the detecting officers and others are included. Details of all seized material, i.e. timber or other forest produce, quantities and sizes, vehicles, tools and equipment etc. should be included in the dossier, and all items to be produced in court should be numbered serially.

The prosecuting officer should pre-plan introducing witnesses during a hearing. What sort of evidence is to be extracted from witnesses during the hearing and whether it is necessary for them to identify various items produced in courts are aspects to be pre-planned.

Quality and completeness of statements

Subsection 136 (1) (b) of the Code of Criminal Procedure Act entitles a forest officer as a public servant or a peace officer to produce a written report to a magistrate court for a crime committed. However, the wording of a written complaint produced at a magistrate's court is of utmost importance. Terminology used in the Forest Ordinance and in the rules and regulations should be used as much as possible when framing charges. The crime committed should be precisely described. For better clarity it should be reported in a sequential manner.

Judges' and prosecutors' knowledge of forest and forest-related laws and the role of prosecutors

Generally, judges are highly conversant with forest-related laws and the intellectual community is very concerned with environmental conservation. This kind of attitude also motivates the judges to study forestry and environmentally related laws with special interest.

It is the duty of the range forest officer to prosecute in courts, without delay, all applicable cases reported to him. For cases of a special nature or very serious offences, a senior officer or the legal officer attached to the department can conduct the prosecution. If the Attorney General's assistance is necessary for a very important case, it is arranged through the Forest Department's head office.

Generally, Forest Department officials who are involved with prosecutions are competent enough to carry out their duties successfully. Most judges have acknowledged the ability of forest officials in conducting prosecutions compared to other law enforcement agencies.

Recovery

Seizure and recovery of stolen assets, as well as disposal of recovered assets or proceeds

When a forest crime is committed inside a forest, appropriate information is collected and recorded to assess the degree of damage and the loss incurred to the state. For example, tree species felled and their number; how old the felling is; dimensions; if converted, details of sawntimber; details of scaffoldings; details of tools and implements used for the offence; and indications of removal of timber or other forest produce. It is the duty of the forest officers to take every possible measure to recover the stolen assets.

When timber or any other forest produce is recovered, it is taken into the custody of forest officers and transported to a safe place, preferably to government premises, but if this is not possible to the range forest office. All items seized are marked or stamped using the stamping hammers issued to the officials. A comprehensive report indicating the details of seized material and hammer marks is prepared. If assets or material are seized from a suspect or another party, proper receipt of acknowledgement is issued. Soon after the raid, the officer who conducted it should prepare a comprehensive report and submit it to the supervising officer or to the range forest officer for further action.

In case of matters taken to court, each and every seized item, including the measurement of timber, should be reported to the court. There is a provision in the law to dispose of any perishable material such as timber with the permission of the court of law. In such cases the money recovered is deposited in the court until the case is decided.

If the accused party is convicted at the trial, the prosecuting officer formally requests the court to confiscate the seized material. It will subsequently be sold by the court in a public auction or handed over to the State Timber Corporation (STC).

Section 30 of the Forest Ordinance empowers forest officers to collect and seize all unclaimed timber found adrift, beached, stranded or sunk. However, according to Section 30 (3) the Ministry of Finance may, by notification in the Gazette, exempt any class of timber from the provision of this section, and withdraw such exception. Immediately after collection of such timber, public notice is issued to ascertain the claims on the property. When any such claim is presented, a forest officer not below the rank of assistant divisional forest officer will conduct an inquiry as he/she thinks fit and either reject the claim after recording his/her reasons for doing so, or deliver the timber to the claimant. All confiscated timber is handed over to the STC.

Forest governance (non-law enforcement)

Forest governance framework (participatory approach, transparency, accountability, public disclosure, etc)

Participatory approach: During the past few decades, efforts have been made to deviate from the orthodox system of forest practices by absorbing local communities into planning, decision-making and implementation of local forestry activities. The National Forest Policy of

1995 promotes the formation of partnerships with local people, rural communities and other stakeholders where appropriate. Participatory approaches are now an integrated component in forest practices, especially implementing donor-assisted projects. Establishment of timber and fuelwood plantations, agroforestry woodlots, delineation of forest boundaries and ecotourism are some recent spheres implemented using community participation with varying degrees of success. During the next two decades, stakeholder participation will remain a major tool in the implementation of many forestry operations (FAO 2009).

Transparency and accountability: All statutory authorities in Sri Lanka are accountable to Parliament. They are subject to auditing by the Auditor General's Department. The opportunity exists in Parliament to raise questions to be answered by the minister concerned. Public petitions are a powerful tool for the public, whereby the attention of higher authorities can be drawn to issues pertaining to administration.

Fundamental rights litigation in the Supreme Court and public law remedies such as writs to the Court of Appeal and provincial high courts are some of the measures by which courts may review the actions and inactions of public officials. Both these tools are being used by the public and civil society organizations in challenging administrative acts and decisions though to a lesser degree for forest-related activities.

The Human Rights Commission of Sri Lanka is empowered to investigate infringements of fundamental rights and to either make recommendations thereon, refer the same to a court with jurisdiction to hear the issue or to refer it to conciliation or mediation as appropriate (IUCN 2009).

Forest officers are prohibited from becoming involved in trading of timber or forest produce.

Public disclosure: The Forest Ordinance requires that prior to the declaration of reserved forests and conservation forests, surrounding villages must be notified. However, not much attention is paid to such notices either by the authorities or by the general public.

The NEA is mandated to disclose all EIA reports for public comments before making a decision.

Equitable treatment and participation of all stakeholders in forest management, including public consultations

The Forest Department by virtue of its monopolistic control over the resource has traditionally made decisions in the past with little consultation among other stakeholders. However, participatory approaches in forestry development have been a significant feature since the late 1980s. This was particularly evident in the preparation of forestry master plans, where views and contributions of all interested parties were obtained through public consultations. In addition, a more participatory approach involving all stakeholders has been adopted in the preparation of forest management plans and in implementing social forestry programmes. Forestry operations such as afforestation, conservation and protection have pronounced components of community participation to varying degrees. Both forest and wildlife departments have been piloting more participatory forest management approaches in several areas adjacent to natural forests in the recent past under various donor-funded projects.

Ability of forest landowners or right holders to receive a fair return for the use of forest lands

There is no restriction in felling of trees in private properties and utilizing the timber within the premises except for jak, breadfruit and female palmyrah trees which are considered important sources of food. Except for about 30 species, permission is needed to transport timber on public roads.

Many people believe that control over timber grown in private or leasehold lands, especially with regard to transport, is taking matters too far. This prevents tree owners from getting a fair return for their products and thus might discourage growing trees as a commercial activity. Even though some tree species commonly grown in private lands have been exempted from permit requirements in the recent past, the opportunity still exists for further improvement in this respect.

The Forest Department has tried to generate some benefits for low-income households through agroforestry woodlot development on state lands. About 14 000 hectares of state land have been contracted to low-income households. The labour inputs are subsidized, while permission has been granted to grow other crops between timber trees and the households receive 80 percent of the timber after 25 to 30 years. In addition, about 1 000 hectares of state lands have been leased out to the private sector also under the private sector leasehold forestry programme to grow commercial plantations.

Protection of non-formalized customary rights

The emphasis of the Forest Ordinance is on safeguarding and protecting the interests of the state on state land, mainly in terms of wood production and revenue collection; it does not adequately safeguard or entrench public or community interests or rights in these forests (Ministry of Agriculture, Lands and Forestry 1995).

Natural forests contain a wealth of products which, traditionally, have been used by people living in the vicinity. Until recently, the vital role of NWFPs in local economies had been overlooked in planning, with the result that villagers were denied their traditional rights of access to such products as forests became reserved by the state for commercial production or conservation processes (Ministry of Agriculture, Lands and Forestry 1995).

Section 12 of the Forest Ordinance affords provisions to the Ministry of Finance to declare any portion of forest a 'village forest' for the benefit of any village community or group of village communities. In village forests all private rights that existed prior to the declaration of the village forest would continue to be recognized whilst regulations may be made for the management of such forests by communities. However, no such village forests exist at present.

The Forest Ordinance has jurisdiction over forests not declared as reserved, conservation or village forests. In such areas, activities such as clearing, burning, soil disturbance, grazing or making use of forest produce may be carried out only in compliance with rules made by the Ministry of Finance. Thus, one interpretation would be that in the absence of such enabling rules, these activities are prohibited. However this does not affect any grazing rights that existed at the time of enactment of the law. The Ministry of Finance is empowered to exempt

any person or class of persons or any local area from the operation of any such rule (IUCN 2009).

The Forest Ordinance states that the rights of any person related to grazing with respect to state forests not included in a village, conservation or reserved forest are preserved. However, these provisions are rarely, if ever, implemented, usually due to the ignorance of the rights holders (IUCN 2009).

How timber sales and concession allocation are organized, including the pricing of resources and sales' methods

The STC is currently the sole authority for timber harvesting from state lands. It harvests and markets timber from plantations released annually by the Forest Department. The STC is well-equipped with machinery and trained staff for timber harvesting and is organized throughout the country for the purpose.

The old system of paying royalty for the converted timber by the STC is now being replaced by the payment of stumpage values of timber. This method of *in-situ* valuation of standing timber prior to felling was introduced with the objective of timber harvesting through an open bidding process, in which private entrepreneurs are eligible to compete along with the government-owned STC. However, this method is currently suspended and the STC as the sole authority for timber harvesting in state forests now pays the stumpage value to the treasury for the timber it harvests.

Monitoring and reporting

Forest crimes detected and/or reported

About 3 100 forest offences were detected by Forest Department staff in 2008; 2 860 offences were taken to court, whereas the balance was addressed by the Forest Department. Details are given in Tables 1 and 2 (Forest Department 2009).

Table 1. Court cases in 2008

Unit	Total crimes	Value of damage LKR	Accused	Jailed	Fined LKR	Forest land encroached ha	Timber volume detected m ³	Timber value LKR
Territorial	2 783	41 690 203	3 268	86	12 592 895	372.67	2 486.23	34 832 600
Flying squads	77	4 360 141	66	0	337 600	3.7	121.03	1 459 053
Total	2 860	46 050 344	3 334	86	12 930 495	376.37	2 607.26	36 291 653

Table 2. Cases addressed by the Forest Department under Section 30 of the Forest Ordinance

Unit	Total crimes	Value of damage LKR	Timber confiscated		Timber released		Cases pending
			Volume m ³	Value LKR	Volume m ³	Value LKR	
Territorial	232	10 956 063.09	122.17	3 912 876.51	77.51	1 651 125.3	103
Flying squads	08	116 464.98	5.59	162 045.50	0	0	4
Total	240	11 072 528.07	127.76	4 074 922.01	77.51	1 651 125.30	107

In addition, 26 vehicles involved with forest crimes were confiscated by courts during 2008. The total value of the vehicles was LKR10 550 000 (Forest Department 2009).

Production, consumption and trade flows in timber and timber products

A conservative estimate indicates that the total wood supply of Sri Lanka, including imports, in 2006 was 1.24 million m³. The contribution of each wood source as a percentage of the total supply is shown in Figure 1 (FAO 2009).

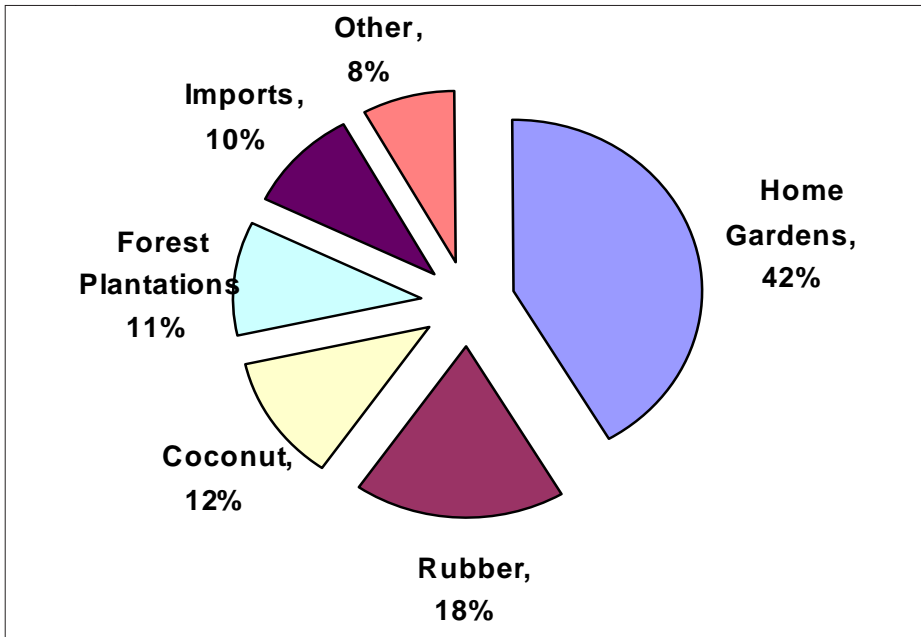


Figure 1. Contribution of wood sources as a percentage of the total supply (2006)

The larger part of the wood harvest is extracted from non-forest timber resources that include home gardens, the estate sector, which includes tea, rubber and coconut plantations and miscellaneous lands sparsely stocked with trees. FAO (2009) estimated the wood supply from non-forest timber resources to be 1 500 000 m³ in 2005 and this is expected to be 1 600 000 m³ in 2010. The study also revealed that home gardens are the source for 41 percent of the sawlog production and 28 percent of the biofuel supply.

Extent of forest lands by forest types and functional use management classes

Natural forests: All natural forests in the country are set aside for conservation. Table 3 shows the latest statistics published by the Forest Department in 1999 with regard to the natural forest types and their extent. The department is currently in the process of updating the forest cover map and the latest information will be available soon.

Table 3. Natural forest types and their extent in Sri Lanka

Forest type	Subtype	Criteria	Extent ^{ha}	Management strategy
Closed canopy natural forests	Lowland rain forest	> 2 500 mm rainfall < 1 000 masl	124 340	Conservation
	Moist monsoon forest	1 800-2 500 mm rainfall < 1 000 masl	221 977	Conservation
	Dry monsoon forest	< 1 800 mm rainfall	1 027 544	Conservation
	Submontane forest	> 1 800 mm rainfall	65 792	Conservation
Montane natural forest	>1 500 mm rainfall in the Wet Zone		3 099	Conservation
Mangroves	In association with lagoons or estuaries		9 350	Conservation
Riverine dry forest	In association with natural watercourses		18 352	Conservation
Sparse and open forest	Natural forests with less crown density, savannah and grassland		471 583	Conservation

Forest plantations: Human-induced forests occupy a significant place in the national forest estate and generally fall into the category of multiple-use reserved forests as defined in the forest policy (Table 4). At present forest plantations consist of even-aged monocultures, except in the case of mixed mahogany plantations.

Table 4. Sri Lankan forest plantations – extent and management strategies

Species	Extent (ha)	Management strategy
Teak	26 333	Around 6 000 ha allocated for wild elephant habitats. Balance for timber.
Eucalyptus	22 268	Around 2 000 ha at high elevation are excluded for environmental protection. Balance for timber.
Pine	9 954	Nearly 80% for watershed protection. The balance for timber.
Mahogany	5 505	Managed for timber under the selection system.
Khaya	1 765	Mainly for timber.
Others	14 116	Majority for multiple use.

Fiscal revenue from the forest sector

The Forest Department collects fiscal revenue under two revenue headings. Revenue collection from state forests including stumpage amounted to LKR687 022 436 in 2008; LKR108 287 636 were collected as permit fees for the transport of timber from private land in the same year (Forest Department 2009).

The revenue generated by the DWLC mainly comes from visits to national parks by tourists. In 2008, total revenue collected by the department was around LKR148 942 000.

Contribution of forestry to formal GDP and employment

A conservative estimate made in 1995 (the Forest Sector Master Plan) on the contribution of the forestry sector to the national economy of Sri Lanka stood at 6 percent, mainly from the production of timber, sawnwood and fuelwood. In addition, national forests provide other benefits to the nation through their high floral and faunal biodiversity, conservation of soil and water that have a positive impact on agricultural production and high aesthetic value; they have contributed to the development of ecotourism in recent times (FAO 2009).

The Forest Sector Master Plan has estimated total employment in the forestry sector at about 331 000, which is double the official figure provided by the statistical authorities at that time (Ministry of Agriculture, Lands and Forestry 1995).

Comments and conclusions

Forest laws have been formulated over the years to meet various challenges and needs and are based on rationales which were relevant to the past but have partly lost their significance and justification in the present context. When the laws were enacted, initially priority was given to forest exploitation and revenue collection by the state, while conservation and people's participation have now emerged as priority issues (Ministry of Agriculture, Lands and Forestry 1995).

Compared to many other developing countries, Sri Lanka is blessed with a clear and comprehensive National Forest Policy and well-defined forestry legislation. The political will on conserving and managing the country's forest resources in a sustainable manner has remained unchanged over the years. However, there is more scope for improvements, especially with regard to legislation and its implementation.

In the Sri Lankan context, wildlife and forest legislation are not properly coordinated when it comes to conservation. There is unnecessary duplication of conservation activities and administration, which leads to the inefficient use of funds. The possibility of combining the Forest Ordinance and the Fauna and Flora Protection Ordinance into a single act or code should be evaluated and seriously considered. Having a single Forestry and Wildlife Code would make it easier to interpret and implement the law, and to reach conservation objectives.

Putting excessive emphasis on 'command and control' has resulted in expensive policing and sometimes has produced inadequate results and inefficient use of the forestry professionals' time. This could result in increased corruption and abuse. Having too many restrictions on transport of timber grown in private lands could discourage private tree growing and marketing.

Complex environmental issues cannot be solved merely by promulgating laws and regulations of an authoritative and restrictive nature. They can be solved by legislation designed to permit and encourage the wise use of resources. Mechanisms for public involvement in enforcement and implementation must be developed and defined in legislation.

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Forest law enforcement and governance in Thailand

Vitton Jalayanavin and Songsak Vitayaudon¹

Summary

The volume of illegal forest activities and deforestation cases has fluctuated over the past two years in Thailand despite increased protection and suppression efforts, including improved interagency cooperation and several other key forest law enforcement and governance (FLEG) strategies and actions. In 2008, the volume of deforested areas had increased considerably but by 2009 the situation had improved (less than half of the 2008 figure). High risk areas are prioritized for the implementation of protection and suppression measures as well as for the establishment of forest protection units to reduce deforestation.

Under the Ministry of Natural Resources and Environment, the Royal Forest Department (RFD) is the principal agency responsible for forest protection and suppression of forest crimes. It coordinates working units at national, regional and provincial levels. At present, the RFD has set up 743 checkpoints to monitor illegal trafficking of forest products. A system for approving land rights and certification in forested areas has also helped to resolve forest encroachment and forest land-use issues.

Enabling conditions

Thailand addresses FLEG under the following legal framework:

1. The National Forest Reserve Act, 1964 and the National Park Act, 1961.
2. The Forest Plantation Act, 1964.
3. The Forest Act, 1941.
4. The Wild Animals Reservation and Protection Act, 1992.
5. The Chain Saw Act, 2002.
6. The National Environment Quality Act, 1992.

The Royal Thai Government (RTG) also has three key strategies to strengthen FLEG implementation:

1. Stopping forest encroachment immediately and consistently.
2. Setting up a system to allow marginalized people to live in national forest areas without impacting negatively on the environment.
3. Enforcing and promoting forest rehabilitation.

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The Royal Forest Department (RFD), under the Ministry of Natural Resources and Environment (MNRE) is coordinating working units at national, regional and provincial levels in the following contexts:

At the national level, the RFD recently established the Protection and Suppression Operation Centre with the Minister of the MNRE as the centre's director. The centre advises the Prime Minister and the Committee of Protection and Suppression of Deforestation on work plan implementation and liaison with the National Park, Wildlife and Plant Conservation Department (DNP) and the Department of Marine and Coastal Resources.

At regional and provincial levels, the RFD empowers working units to devise operational plans for inspection and intelligence purposes, to gather information and coordinate with other units to collaborate for FLEG in critical areas.

Thailand has made positive progress towards interagency synergy in addressing FLEG. The MNRE and the RFD collaborate with the following groups:

- The DNP;
- The Forest Industry Organization;
- Thai Plywood Industry Co.;
- The Forest Protection and Forest Fire Control Bureau;
- The Social Forest Management Bureau;
- The Forestry Research and Development Bureau;
- The Forest Plantation Promotion Bureau;
- The Forest Land Management Bureau;
- The Planning and Information System Bureau;
- The Permission Division;
- The Administrative System Development Group;
- The Internal Auditing Group the Royal Project and Activity Group.

The MNRE also liaises with the Land Department, Ministry of Defense, Ministry of Interior, National Police Bureau, local administrative organizations and NGOs.

Currently, the Forest Management Bureau (FMB) under the RFD has 743 checkpoints nationwide to monitor and suppress forest crimes (Appendix 1).

In accordance with strategy 2 to strengthen FLEG, The RTG has implemented a system for approving land rights and certification in national forest areas (Table 1). This has helped to resolve forest encroachment issues.

Table 1. Land rights approvals and certification, 2005-2009

Indicator	Fiscal years				
	2005	2006	2007	2008	2009
Number of people granted rights to live in national forest areas	20 000	10 400	119 000	89 239	52 540

The Cabinet Resolution of 30 June 1999 on land use in forested areas was approved after National Forest Policy Committee (NFPC) recommendations. A significant outcome was NFPC agreement to use aerial surveillance to identify forest boundaries with the objective of freezing the expansion of people's tenure in forests. The NFPC subsequently endorsed a number of measures for implementing the resolution such as empowering the RFD to inhibit encroachment of conservation areas and apprehend trespassers and mandating the NFPC oversee working groups involved in the prevention and suppression of encroachment.

Prevention

The RTG has devised various preventive measures and plans to mitigate incidences of forest crimes that include:

- Setting up an *ad hoc* forest crime prevention task force at national and subnational levels.
- Enhancing knowledge related to security management and crime prevention techniques.
- Increasing forest patrol checkpoints (for protection purposes).
- Improving public relations and awareness raising.
- Enhancing illegal logging prevention and developing protection plans.
- Reporting implementation results to the RFD twice a month.
- Establishing a forest protection base for combating forest encroachment.
- Boosting surveillance efforts.
- Increasing on-the-ground information gathering for better understanding of the de facto situation in forest areas.

Detection

Regarding better detection of forest crimes, the RTG has the following strategies:

- Increased aerial photography and remote sensing activities, including helicopter surveys to detect illegal activities.
- Invoking the Forestry Information Disclosure Act, components of which are implemented in close cooperation with information centres in communities.
- Deploying the Department of Special Inspection (DSI) to conduct an intelligence programme on criminal activities.
- Improved coordination with other government agencies, public development organizations, provincial natural resource and environment offices, the border police, local administrative organizations, foundations and NGOs for mass communication on forest protection.
- Increasing the number of information sources on illegal logging and forest encroachment.
- Establishing a call centre for reporting acts of forest encroachment and deforestation.

Suppression

Suppression of forest crime is facilitated through joint cooperation among the military, police, ministerial officers and local administrators. There is a memorandum of

understanding between the MNRE and the Royal Thai Army, Royal Thai Navy, Royal Thai Air Force, the National Police Bureau, the Ministry of Education and the Ministry of Interior in this context. Other measures taken by the RTG are:

- Setting up the Committee for Protection and Suppression of Deforestation at the sub-national level.
- Plans to establish a Forest Protection Volunteer Training Project.
- Plans to establish a Forest Protection Data Base.
- Increasing the use of remote sensing techniques to evaluate changes in forest area.

Investigation

The RTG is currently carrying out a forest crime investigation training programme which promotes modalities for criminal policing procedures. Moreover, cooperation with the Department of Special Investigation has increased. There are also plans to broaden the scope of investigation processes.

Prosecution

Apart from standard processes, prosecution efforts have included seminars for judges to further their knowledge about forests and forest-related laws. There are plans to improve public law, civil law and the chain of evidence.

Recovery

Between 2005 and 2009 there were 14 730 cases related to illegal deforestation affecting a total of 18 903 hectares. Slightly more than 29 000 m³ of illegally harvested logs were seized as well as 16 256 m³ of sawnwood (Table 2). The government is also promoting anti-money laundering activities.

Monitoring and reporting

The effectiveness of monitoring and reporting activities is evidenced by the information contained in Table 2.

Table 2. Illegal deforestation activities between 2005 and 2009

Details	2005	2006	2007	2008	2009
Number of cases	1 302	2 395	2 761	5 652	2 620
Deforestation (ha)	3 820	2 888	2 671	6 426	3 098
Seized logs (m ³)	3 357	3 340	7 098	8 480	6 773
Seized sawnwood (m ³)	1 192	1 174	7 079	4 770	2 041

The volume of illegal forest activities and deforestation cases has fluctuated over the past two years. In 2008, the volume of deforested areas had increased considerably, but by 2009 the situation had improved (less than half of the 2008 figure). This is attributable to intensive efforts by protection and suppression units, interagency collaboration and the fact

that high risk areas are prioritized for the implementation of protection and suppression measures as well as for the establishment of forest protection units to reduce deforestation.

Comments and conclusions

Thailand has a legal framework to address FLEG and three key strategies to strengthen FLEG implementation: Stopping forest encroachment immediately and consistently; granting rights for marginalized people to live in forest areas without impacting negatively on the environment; and enforcing and promoting forest rehabilitation. Thailand has made positive progress towards interagency synergy in addressing FLEG. At regional and provincial levels, the RFD empowers working units to devise operational plans for inspection and intelligence purposes, to gather information and coordinate with other units to collaborate for FLEG in critical areas.

Appendix 1. FMB checkpoints to monitor and suppress forest crimes

FMB bureaus, provinces and number of checkpoints ('points')	
Forest Management Bureau No. 1	(Chiang Mai Province): Chiang Mai 4 points; Mae Hong Son 4 points.
Forest Management Bureau No. 2	(Chiang Rai Province): Chiang Rai 11 points; Phayao 27 points; Nan 18 points.
Forest Management Bureau No. 3	(Lam Pang Province): Lam Pang 29 points; Uta Radit 8 points; Phrae 3 points.
Forest Management Bureau No. 4	(Tak Province): Tak 45 points; Kamphaeng Phet 18 points; Sukhothai 19 points; Phitsanulok 19 points. <i>branch</i> (Nakhon Sawan Province): Nakhon Sawan 7 points; Uthai Thani 8 points Phetchaburi 23 points.
Forest Management Bureau No. 5	(Sara Buri Province): Sara Buri 19 points.
Forest Management Bureau No. 6	(Udon Thani Province): Udon Thani 1 point; Loei 10 points; Nong Khai 3 points. <i>branch</i> (Nakhon Phanom Province): Sakon Nakhon 10 points; Khon Kaen 18 points.
Forest Management Bureau No. 7	(Kalasin Province): Kalasin 11 points; Mukdahan 2 points; Maha Sarakham 2 points; Amnat Charoen 5 points; Ubon Ratchathani 25 points; Yasothon 7 points. <i>branch</i> (Ubon Rajchathani Province): Amnat Charoen 4 points.
Forest Management Bureau No. 8	(Nakhon Rajcha Sima Province): Nakhon Ratchasima 33 points; Chaiyaphum 63 points; Buri Ram 18 points; Surin 14 points; Si Sa Ket 23 points.
Forest Management Bureau No. 9	(Chantha Buri Province): Chanthaburi 1 point <i>branch</i> (Prachin Buri Province): Chachoengsao 4 points; Sa Kaeo 3 points.
Forest Management Bureau No. 10	(Prachuap Khiri Khan Province): Prachuap Khiri Khan 20 points.
Forest Management Bureau No. 11	(Surat Thani Province): Surat Thani 64 points; Chumphon 25 points; Ranong 23 points.
Forest Management Bureau No. 12	(Nakhon Sri Thamaraj Province): Nakhon Sri Thammarat 2 points; Phatthalung 1 point. <i>branch</i> (Krabi Province): Krabi 29 points; Phangnga 14 points; Phuket 2 points.
Forest Management Bureau No. 13	(Satun Province): Satun 5 points; Songkhla 12 points.

Forest law enforcement and governance in Timor-Leste

Luis Godinho¹

Summary

The government agency responsible for management of forest resources in Timor-Leste is the National Directorate of Forestry (NDF) under the State Secretary for Agriculture and Arboriculture at the Ministry of Agriculture and Fisheries (MAF). At present it only has 150 regular staff, 59 percent of whom are assigned to districts. Staff members in the national office are responsible for planning and administration, while those in the districts undertake field activities and forestry extension work. Since its establishment in 2000, the NDF has enjoyed good collaboration with the national police in order to control the movement of wood from and to districts. A significant development in this context is the establishment of four main entrance checkpoints to Dili. Additionally, in every district joint operations are conducted between forest guards and the police. During 2009, the NDF confiscated approximately 14 218 m³ of wood. Although successes have been achieved, there are some concerns; lack of coordination among courts, customs and excise, police and forestry departments is a challenge to be addressed. Moreover, there is a need for capacity building for forest guards and provision of better communication technology; better transportation is crucial to help them perform tasks more effectively and efficiently. A number of forest-related cases have been registered in court since 2005 but so far there has been no action due to lack of human resources and courts having more important issues to address.

Two regulations – the United Nations Transitional Administration in East Timor (UNTAET) Regulation 2000/17 on prohibited logging and export of wood from Timor-Leste and UNTAET Regulation 2000/19 on protected areas are not appropriate for conditions in Timor-Leste. Under these regulations there is no minimum penalty applied for people who violate forest laws. If found guilty a person has to pay a fine of US\$5 000 and a company US\$500 000; if they cannot afford to pay, the parties are released by court. Judges and prosecutors need to have better clarity on forestry-related issues.

Thematic elements

Enabling conditions

Urgent action is needed to address current forestry issues in Timor-Leste; there are some policies to deal with illegal activities but appropriate regulations are required to carry out forest law enforcement and governance (FLEG) effectively and efficiently. The NDF has established good cooperation with the police in order to control illegal logging. However

¹ National Director of Forestry.

implementation faces some constraints, especially as courts do not collaborate properly with these two agencies. For example in 2003, police and forest guards confiscated wood and equipment as the owner had not obtained a permit from the NDF. The case was registered in court. However, after waiting a few months the court returned the confiscated items to the owner. The Forest Policy and Strategy, 2007 for Timor-Leste has as its main goal the sustainable management of forests and watersheds to provide environmental, social and economic benefits. The policy has five objectives: Protection of forests, community and private sector participation in forestry development, watershed conservation, afforestation and land restoration. The goal will be implemented through the five objectives, a series of realistic, forward-looking strategies and new forest legislation that will be based upon government approval of forest sector policy. One of the objectives targets effective protection of ecological and biological integrity and the biological composition of not less than 70 percent of the forest area by 2020; this is one of the challenges for the NDF to achieve. Additionally, UNTAET Regulation 2000/17 and 2000/19 address preventing destruction of forest resources in Timor-Leste. It is not known whether Timor-Leste has signed the UN Convention on Transnational Organized Crime and Corruption.

Prevention

There is no balance between supply of and demand for forest resources. Since its establishment in 2000, the NDF has tackled forest crimes by creating four major checkpoints in order to control the movement of wood from and to Dili. At the district level, forest guards and police undertake joint patrols to prevent further destruction of forests. Training on crime prevention techniques and knowledge of security management are essential for forest guards to perform their daily activities effectively. Extensive forest education and awareness raising at the village level have been conducted to increase community awareness on the importance of preventing forest crimes. Currently, there is no legal regulation for imposing taxes on timber sales.

Detection

Regular monitoring has been conducted by forest guards to record forest crime trends. Communities also report any infringements to the NDF. In general, there is good community and NDF collaboration for protecting forest resources.

Suppression

Although there is good cooperation between police and the NDF in some cases, access to records on forest crimes is limited. Inadequate administrative and criminal penalties remain an issue. According to UNTAET Regulation 2000/17 and 19, there are no maximum and minimum penalties for guilty parties. The roles and responsibilities of each institution are clear so overlap in the field is avoided.

Investigation

The key investigation strategies and activities that support FLEG implementation can be described as follows. The NDF has four inspectors of forest products. The inspector of forest products is responsible for the movement of wood and non-wood forest products from and to

districts as well as preliminary investigation. Therefore qualified officers are essential in this context. The NDF and the police have not signed a memorandum of understanding. However, if police at checkpoints find vehicles loaded with forest products then they immediately contact an inspector of forest products to check the legality of the accompanying documentation. If there is concrete evidence of crime this will be addressed by the police. Inspectors of forest products need to be trained in this area of investigation to perform optimally in the field.

Prosecution

Article 165 of the National Constitution of Timor-Leste still recognizes former laws and regulations, including those established during the Indonesian and UNTAET periods. However, most judges and prosecutors do not apply them because other issues take precedence over forest crimes. They have clear roles and independence as stated in their mandates. The NDF should conduct specific training and workshops on how to deal with forestry-related issues.

Recovery

There is no information on this issue at the moment.

Forest governance (non-law enforcement)

Stakeholder participation is an important issue in Timor-Leste at the moment. As stated in the Forest Policy and Strategy, 2007, stakeholder participation in the management of forest resources in Timor-Leste should target sustainable forest management. Land tenure is still an issue in forest management. Consequently, forest crimes cannot be avoided due to lack of clarity on who is the owner of the forest. Public consultation should be conducted regularly to reach mutual agreement on forest management prior to further implementation. Civil society organizations (CSOs) play an important role in forest management. Haburas is the only CSO dealing with forest advocacy in the country. Haburas plays an important role in promoting sustainable forest management by advising rural communities on the importance of forests. The traditional *Tarabandu* law is a significant instrument for forest management, particularly in remote areas. Under this traditional law, people are not allowed to harvest forest products or hunt game in certain periods. During this period, if someone is suspected of breaking the law, he/she will be judged by the local community. Additionally, people in rural areas still believe that the forest has supernatural power that influences human lives. If forest is damaged intentionally, it is believed that the perpetrators will fall ill. Therefore, some areas are left pristine and are designated as sacred sites.

Comments and conclusion

Timor-Leste is in the process of formulating forest policy and strategies. At the moment, some regulations are in place. However, weaknesses remain and need to be addressed. Obtaining adequate information on forest crimes is still a problem facing the NDF. If it wants to acquire such information from the police, legal procedures have to be followed which consume time and energy. There are areas that require further action such as training of forest guards in the area of investigation, information sharing on forest crimes among police and forest guards and specific training for judges and prosecutors to increase their knowledge of forests and forest-related laws.

Forest law enforcement and governance in Viet Nam

Tran Quyet Toan and Vu Thanh Nam¹

Summary

According to statistics provided by the Ministry of Agriculture and Rural Development (MARD), forest covered 13.1 million hectares accounting for 38.7 percent of natural land nationwide by December 2008; this included 10.3 million hectares of natural forest and 2.8 million hectares of plantation forest. Of the total forested area, there were 2.1 million hectares of special-use forest (15.7 percent of the total forest area); 4.7 million hectares of protection forest (36.1 percent of the total forest area); and 6.2 million hectares of production forest (47.3 percent of the total forest area). Aware of the need for forest protection and biodiversity conservation, the Vietnamese Government issued a wide range of laws such as the Forest Protection and Development Law in 2004, the Land Law in 2003, the Environmental Protection Law in 2005, the Water Resource Law in 1998 and the Bio-diversity Law in 2008. These are significant milestones in Viet Nam's efforts to address forest protection and biodiversity conservation. The Vietnamese Government is also signatory to many international conventions and treaties on forest protection, forest management and biodiversity conservation.

The Vietnamese Government has implemented a wide range of national strategies and target programmes to strengthen sustainable forest management, biodiversity conservation, environmental protection, livelihood improvement and poverty reduction in rural areas.

Violations of state regulations related to forest protection and forest product management occur in many places. From 2004 to 2008, there were 208 264 forest crimes, equivalent to an average of 41 653 cases per year, including 108 744 cases of illegal transportation of forest products and 44 716 cases of illegal exploitation of forest products. There were 3 659 cases of arson which destroyed 15 479 hectares of forest, equivalent to an average of 3 096 hectares of forest per year.

Thematic elements

Enabling conditions

Legal base for implementation of forest law

There is a substantial body of legislation in Viet Nam for addressing forestry issues of which the most significant in terms of forest law enforcement and governance (FLEG) is the Forest Protection and Development Law, 2004. Also relevant are the Land Law, 2003; the Environmental Protection Law, 2005; the Water Resource Law, 1998; and the Bio-diversity Law,

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2008. These are significant milestones in Viet Nam's efforts to address forest protection and biodiversity conservation. The Vietnamese Government is also signatory to many international conventions and treaties on forest protection, forest management and biodiversity conservation, the most prominent being the Convention on International Trade in Endangered Species and the Ramsar Convention.

There are also various decrees, decisions and circulars that supplement these laws, some of which are listed below:

- Decree No. 23/2006/ND-CP 2006 on Implementation of the Law on Forest Protection and Development.
- Decree No. 99/2009/ND-TTg on Administrative Sanctions in the Forestry Sector.
- Decision No. 40/2005/QD-BNN dated 7/7/2005 on Promulgating the Regulation on Exploitation of Timber and other Forest Products.
- Decree No. 199/2006/ND-CP dated 16/10/2006 by the government on the Structure and Functions of the Forest Protection System.
- Decision No. 119/2007/TTg on Functions, Tasks, Authority and Organizational Structure of the Forest Protection Department.
- Inter-Ministry Circular No. 144/2002/TTLT/BNNPTNT-BCA-BQP dated 6/12/2002 Guiding the Cooperation among Forest Protection Force, Police and Military in Forest Protection.
- Inter-Ministry Circular No. 19/2007/TTLT/BNN&PTNT-BTP-BCA-VKSNDTC-TANDTC dated 8/3/2007 Guiding the Application of the Penal Code in Forest Management, Protection and Management of Forest Products.
- Decision No. 39/2009/QD-TTg dated 09/3/2009 by the Prime Minister on Promulgating the Regulation on the Cooperation between the Forest Protection Force and Militia.
- Decision No. 7/2007/QD-BNN dated 23/01/2007 on Establishment of CITES Management Authority.
- Circular No. 123/2003/TT-BNN dated 14/11/2003 on the Implementation of Decree No. 11/2002/ND-CP dated 22/01/2002 by the Government on Management of Wildlife Transit, Import, and Export Activities.

Organizational structure

Forest protection is administered at four different levels:

- At the central level by the Forest Protection Department under MARD.
- At the provincial level by the Forest Protection Sub-department under MARD.
- At the district level by forest protection stations under the provincial Forest Protection Sub-department.
- At the commune level by local forest protection officers. At present, all communes have local forest protection officers. There are more than 10 000 forest protection officers nationwide.

Prevention

With regard to the prevention of forest crimes, Directive No. 12/2003/CT-TTg dated 16/5/2003 addressed the urgent need to protect and develop forests and Directive No. 08/2006/CT-TTg

dated 08/3/2006 targeted urgent measures to prevent illegal logging and forest harvesting as well as burning of forests.

Forest stakeholders require greater clarity about conducting their activities within the letter of the law. This could be generated by promulgating specific technical guidelines *vis-à-vis* harvesting, transportation, processing and import/export of forest products; regularly organizing awareness campaigns on forest management and protection for forest owners, farmers and local communities; and developing village forest protection regulations.

Other methods for mitigating the incidence of forest crime could be: Setting up forest protection teams in communes and villages; developing regulations on stakeholder collaboration with the police and military with respect to forest protection and the struggle against illegal trade of forest products; stakeholder collaboration with customs and excise to combat illegal trafficking of forest products.

Detection

One way to improve the detection of forest crimes is to seek the assistance of communities and local farmers in reporting illegal forest exploitation and timber trade. Feedback can be channeled into an information network that encompasses a number of communities. Interministry inspection teams should be organized to detect and strictly penalize illegal harvesting, transportation and trade of timber and forest products and to check the legality of materials for wood-processing businesses.

Suppression

Suppression of forest crimes can be strengthened by creating a database of forest violators, educating them on the laws they are breaking (and the reasons for developing the laws) and monitoring persistent offenders. As mentioned earlier, interministry inspection teams should be organized to detect and strictly penalize illegal harvesting, transportation and trade of timber and forest products and to check the legality of materials for wood-processing businesses.

Forest protection officers have an important role to play in the context of attempting to suppress illegal activities in commune vicinities.

Investigation

Powers of investigation can be enhanced by organizing training and capacity building in crime investigation for officers who are involved in the implementation of forest laws. This should target their knowledge of forestry law in particular.

Better cooperation among forest protection officers, procurators fiscal, courts, the police and the military is essential for investigating forest law abuse.

Prosecution

All pending cases should be reviewed and resolved and new cases should be settled promptly. Significant cases of illegal logging and opposition to officials should be disseminated publicly

after verdicts have been reached to underscore government resolve in strictly punishing such infringements. However, there is a need to improve investigative processes and collection of evidence for presentation in courts. Clearer guidelines on different forms of penalization would enhance the efficiency and effectiveness of agencies concerned with prosecuting violators of forest law.

Recovery

One of the best ways to facilitate recovery is to identify and strike at the roots of illegal forest exploitation (i.e., directly in the forest); statistics on destroyed forest areas can be gathered to develop recovery solutions regarding the retrieval of illegal wood and forest products.

Forest governance (non-law enforcement)

In Viet Nam forest governance can be consolidated by:

- Strengthening the forest management capacity of forest management boards; restructuring management mechanisms for protection forest and special-use forest management boards so they can provide better services; rethinking views on planning and investment in buffer zones of special-use forest, by empowering local farmers and making them the main instruments of conservation approaches, which they should ultimately benefit from.
- Continuing to link forest protection officers with local authorities and farmers. Organization and implementation of the commune forest protection system should be adjusted so communes can advise local authorities concerned with state management of forest.
- Harmonizing the activities of forest protection officers and protection forest and special-use forest management boards to strengthen collaboration and support, avoid overlapping duties and increase responsibility in forest protection.
- Continuing to strengthen organization and operation of state forest enterprises. Finalize policies for state forest enterprises so they can protect allocated forests and receive regular income. Connect the responsibility of forest owners with forest protection results. Finalize procedures, documents on forest allocation and certificates pertaining to forest land use. Allow state forest enterprises to harvest timber and forest products from plantations and natural forests based on sustainable forest management, but according to international forest certification standards.
- Reviewing the results of forest land allocation and leasing; finalize documents on forest land allocation and leasing based on the forestry master plan.
- Allocating to communities/villages forest and forest land that they are managing or protecting effectively.
- Finalizing regulations on communities' rights, their duties in forest management and protection as well as the forest benefits they should receive.

Monitoring and reporting

According to statistics provided by MARD, forest covered 13.1 million hectares, accounting for 38.7 percent of natural land nationwide by December 2008; this included 10.3 million

hectares of natural forest and 2.8 million hectares of plantation forest. Of the total forested area, there were 2.1 million hectares of special-use forest (15.7 percent of the total forest area); 4.7 million hectares of protection forest (36.1 percent of the total forest area); and 6.2 million hectares of production forest (47.3 percent of the total forest area).

Violation of state regulations related to forest protection and forest product management occurs in many places. From 2004 to 2008, there were 208 264 forest crimes, equivalent to an average of 41 653 cases per year, including 108 744 cases of illegal transportation of forest products and 44 716 cases of illegal exploitation of forest products. There were 3 659 cases of arson which destroyed 15 479 hectares of forest, equivalent to an average of 3 096 hectares of forest per year.

Comments and conclusion

The authors would like to make the following recommendations for all forestry management agencies and forest owners: a) officially allocate forest and forest land to forest owners; b) issue certificates of forest and forest land use; c) develop forest management plans (by forest owners); d) pay all taxes regulated by laws; e) follow all national regulations on forest management, environmental protection; f) monitor the implementation of forest laws annually; g) collaborate with customs and excise to monitor the trade of timber and wood products; h) collaborate with tax agencies to monitor income.

Following government intervention with respect to methods for forest protection management and protection, there have been significant advances: Reduction of the number of forest crimes; reduction of the loss of forest resources generated by illegal activities; increase in forest area and increase in forest cover (from 36.7 percent in 2004 to 38.7 percent in 2008).

However, violations of state forestry laws still persist and violence against government officers takes place in many areas, often with serious consequences. Therefore, there is a need to perfect forestry laws and policies, enhance forest protection activities and penalize those who break forest laws according to the severity of the offence.

It should be noted that many difficulties in collection of information from other departments were encountered in the preparation of this paper.