



Illegal Logging and Related Trade: Indicators of the Global Response

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Energy, Environment and Resource Governance | July 2010 | EERG IL BP 2010/02

Summary points

- An in-depth Chatham House study of twelve producer, processing and consumer countries demonstrates that actions taken by governments, civil society and the private sector over the last ten years in response to illegal logging and related trade have been extensive and had a considerable impact.
- Illegal logging is estimated to have fallen by between 50 and 75 per cent during the last decade in Cameroon, the Brazilian Amazon and Indonesia, while imports of illegally sourced wood to the seven consumer and processing countries studied are down 30 per cent from their peak in 2004.
- As a result up to 17 million hectares of forest are estimated to have been protected from degradation and at least 1.2 billion tonnes of carbon dioxide emissions avoided over the last decade. Alternatively, if the trees saved were legally logged this could bring in US\$6.5 billion in additional revenues to the countries concerned.
- Reducing illegal logging further will require a comprehensive overhaul of government policy and regulation in producer countries. Japan and China must also follow in the footsteps of the US and EU and prohibit the import and sale of illegally sourced wood. To ensure such prohibitions are effective and encourage broader improvements, importing countries also need to expand cooperation with source countries along the lines of the EU's voluntary partnership agreements.
- It is essential that initiatives to reduce greenhouse gas emissions from deforestation and forest degradation in developing countries reinforce the existing response to illegal logging and poor forest governance, rather than distract from it.

Introduction

Illegal logging and associated trade in illegally sourced wood products are important causes of deforestation and forest degradation in many developing countries. Forest destruction in turn contributes up to 20 per cent of global anthropogenic carbon dioxide emissions. Illegal logging also robs cash-strapped governments of vital revenues, has a devastating impact on the livelihoods of forest-dependent people, and fosters corruption and conflict.

Spurred in part by a commitment in 1998 by the G8 nations to tackle the problem, over the last decade illegal logging, associated trade and poor forest governance have attracted increasing attention within governments and the timber industry. Large amounts of time and money have been spent raising awareness, analysing the problem, identifying potential solutions and implementing actions designed to tackle it. To assess the extent and impacts of this effort, and to inform future actions and priorities, Chatham House has developed a set of standardized indicators with which to measure the response. The indicators seek to assess all phases of the response, from raising awareness through implementation of responses by governments and the private sector to the ultimate end goals of reducing illegal logging and related trade. As well as examining the response in countries affected by illegal logging, the indicators seek to assess the response of countries which import, process and consume illegally sourced timber and wood products.

Methodology

The indicators are broken down into four main categories: media attention, government response, private-sector response and levels of illegal logging and related trade. Media attention was measured using a quantitative and qualitative assessment of newspaper coverage. The government response was principally assessed against a standardized set of policies and regulations considered to be necessary to tackle the problem – countries were scored on the existence, design and implementation of each policy. For producer countries, enforcement and

revenue capture data were also used to assess the government response, as was a perceptions survey of relevant experts in each country, developed by Chatham House for the study. The survey was also used to help assess the response of the private sector and the extent and nature of illegal logging in producer countries.

The growing use of independent verification schemes for establishing legality and sustainability of wood supplies was used as an indicator of the private-sector response, as were surveys in both producer and processing countries. Trade data were also analysed to assess the extent to which trade has shifted towards less sensitive markets in response to demand-side measures in more sensitive ones.

In addition to the survey, levels of illegal logging were assessed using wood-balance modelling, where the difference between total consumption and legal supply provides a measure of logging in excess of agreed harvests. Imports of illegal timber and wood products by consumer and processing countries were estimated using a new and sophisticated import-source methodology developed by Chatham House, whereby estimates of illegality were produced for individual flows of specific products between specific countries in specific years (with input from other indicators) and multiplied against trade volumes. Discrepancies in trade data were also analysed.

A pilot assessment conducted in 2008–09 examined the response in two producer countries (Cameroon and Indonesia), two consumer countries (the UK and US) and one ‘processing’¹ country (Vietnam). The full-phase assessment in 2009–10 broadened the study to cover an additional seven countries (Brazil, Ghana, Malaysia, China, France, Japan and the Netherlands).

The indicators and methodology were developed with input from an advisory group including a broad range of stakeholders, and the results were peer-reviewed by independent experts. More detail on the methodology and its constraints, as well as the full results of the research, are contained in the report which accompanies this briefing paper.²

¹ ‘Processing’ countries were defined in the study as those where a large percentage of imports are destined for re-export as manufactured products.

² Available online at the Chatham House illegal logging website, www.illegal-logging.info/indicators.

Media attention

While attention to illegal logging globally and in consumer countries increased dramatically during the early part of the decade, it peaked around 2007–08 and is now rapidly declining. The reduced level of international media attention is partly due to a shift of focus towards the part that forest destruction plays in increasing global warming, as well as a reduction in NGO attention to the problem. The declining media coverage also reflects the significant reductions in the extent of illegal logging in key countries.

The government response

The indicators showed improvements in the government response in all twelve countries studied.

Producer countries

In the survey of expert perceptions, a majority of respondents in Brazil, Cameroon, Indonesia and Malaysia felt that the government response to the illegal logging problem had improved at least slightly during the last year, though the baseline, especially in Cameroon, was low. Enforcement data support the conclusion that there have been significant improvements in the government response in Brazil, Cameroon and Indonesia in recent years. In 2003 the Brazilian government carried out 32 enforcement operations involving around 400 officers, mostly from the environment agency IBAMA; in 2007 they conducted 134 operations involving more than 3,000 officers, including large numbers from the police and army. The value of fines issued increased eightfold over the period. Indonesia launched a major crackdown in 2005, and seizure volumes doubled before dropping back as the problem declined. Fines and seizures have also increased in Ghana and Malaysia.

Increased enforcement alone, however, will not solve the problem. If producer countries are to be effective in preventing, detecting and suppressing illegal logging, they need to have the right measures in place and these must be properly implemented. First and foremost, the response must be planned and coordinated, laws need to

be coherent and harmonized, and tenure and property rights should be clear and well protected. Checks and balances on government procedures must be in place and forest-related government information needs to be well organized and transparent. Methods for allocating rights to harvest and process timber need to be well designed. Robust systems to monitor legal harvesting and track legal wood through supply chains are essential, as is effective use of available techniques to improve enforcement.

The Chatham House policy assessment found that there have been improvements in legislation, regulation and policy in all the producer countries studied. Brazil scored particularly well thanks to a major policy overhaul during the last five years. Many further improvements were found to be in the pipeline in the producer countries, often spurred by requirements stemming from voluntary partnership agreements (VPAs) with the EU. On the whole, however, the assessment demonstrated that relevant government policy and regulation in producer countries remains poor in most areas (see Figure 1).³

Figure 1: Producer-country policy assessment summary results

	Brazil	Cameroon	Ghana	Indonesia	Malaysia
High-level policy	Green	Orange	Yellow	Orange	Red
Legislative framework	Yellow	Yellow	Yellow	Orange	Green
Checks & balances	Green	Yellow	Yellow	Yellow	Orange
International trade cooperation*	Red	Red	Orange	Red	Red
Supply and demand	Red	Red	Orange	Yellow	Green
Tenure and use rights*	Orange	Yellow	Green	Yellow	Orange
Timber tracking	Green	Yellow	Orange	Orange	Orange
Transparency	Yellow	Yellow	Orange	Red	Red
Resource allocation*	Green	Green	Green	Orange	Orange
Law enforcement	Yellow	Orange	Red	Orange	Yellow
Information management	Orange	Orange	Red	Red	Yellow
Financial management	Red	Green	Yellow	Orange	Green

NB: Colours range from green = relatively good to red = poor.

*Because of the nature of the scoring method, the results for international cooperation give a more negative impression and those for tenure and resource allocation a more positive impression than they should.

³ For a full explanation of the sources and methodology behind the figures in this briefing, refer to the full report.

Some incoherence and ambiguity in legislation was found to be a feature of all countries studied. The situation appears to be somewhat less acute in Malaysia, and worst in Indonesia. The performance of each country's forestry agency is subject to some form of monitoring by government, but often this is not done well. Only Cameroon has in place a national-level independent monitor of forest law enforcement and governance. Timber-tracking regulations are generally weak in most of the countries studied. Transparency in Indonesia and Malaysia is very poor, as are systems for allocating and managing rights to harvest. In all the producer countries on which this study focused, there is significant scope for improvement with regard to policies and regulations designed to improve forest law enforcement. While most countries already have proportionate and dissuasive maximum penalties in their laws, these are often not properly applied. Though detection and seizures may have increased, follow-up – prosecuting cases and collecting fines – remains poor. In Brazil, for instance, only 2.5 per cent of fines are being successfully collected. Although all countries have permit approval systems for primary wood-processing facilities, none are using these effectively to ensure that demand matches legal supply. Collection, management and analysis of forest-related information (including data on revenues) remain very poor in most countries.

The reductions in illegal logging in Cameroon and Indonesia over the last decade have occurred in spite of a poor policy response in both countries. If gains are to be entrenched and illegal logging reduced further, regulations will need to be improved.

Processing countries

Although the Chinese and Vietnamese governments' responses have been much less profound than those of the consumer and producer countries studied, they have taken several initial steps. These have often been a reaction to pressure from consumer-country governments and campaigning by international NGOs. All relevant government departments in each country are now engaged and coordinating their response, and both countries have now studied the problem and potential solutions to some extent. China's 2006 Memorandum of Understanding

(MoU) with Burma (Myanmar) and subsequent regulations contain concrete and detailed commitments which have helped reduce illegal log imports from Burma by 70 per cent. Both Vietnam and China have established bilateral discussions with the EU on the issue, and China has also signed an MoU with the US.

Neither country has yet taken either of the most important steps, however: implementing a procurement policy for wood used in government projects, and enacting legislation prohibiting the import and sale of illegally sourced timber. In the past, a lack of relevant legislation has prevented both the Chinese and Vietnamese authorities from stopping specific shipments of timber entering their respective countries despite requests from source countries and evidence of illegal origin. Additional action by China and Vietnam is needed to help improve the response of the private sector and enable steps being taken in consuming countries to be effective.

Consumer countries

The policy assessment demonstrates that all the consumer countries studied have taken numerous actions over the last ten years to help reduce illegal logging and consumption of illegal wood. The UK has generally been the first to take relevant actions and scores best of the five countries, while Japan receives the lowest overall policy score. While the US response started slowly, in 2008 it became the first country to prohibit the import and sale of illegally sourced timber and wood products, and the impacts are already being felt in producer and processing countries. France, the Netherlands and the UK are likely to be bound soon by similar legislation being developed at the EU level. The US, the UK and Japan have all signed MoUs with producer countries, and the three EU countries have been actively involved in negotiating EU FLEGT VPAs with source countries. All the consumer countries assessed, with the exception of the US, have adopted national public procurement policies regarding timber and wood products during the last seven years. These have been important drivers of the private-sector response to illegal logging in consumer, processing and producer countries.

The study found, however, that there was still considerable scope for improvement. The design and implementation of

the government wood procurement policies in France and Japan could be strengthened, and the adoption of such a policy in the US would provide additional benefits and complement the new prohibition. Japan has yet to develop legislation to prohibit the import and sale of illegally sourced wood, and both the US and Japan need to expand bilateral cooperation with producer countries.

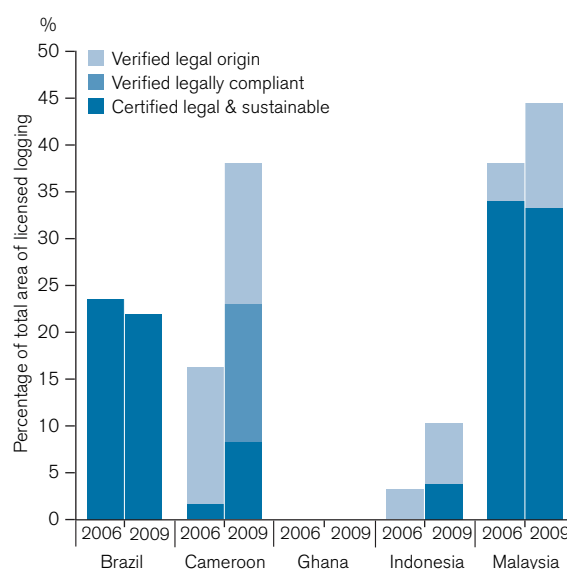
Progress by the private sector

The indicators suggest that private-sector efforts to address the problem of illegal logging and associated trade have grown considerably in all countries examined, and that in most cases this growth is accelerating. Although it is difficult to determine which drivers are the most influential, it appears that early, key demand-side drivers such as government procurement policies and consumer concerns fed by NGO campaigning activity are now being overtaken by recent or impending trade-related legislation in the US and Europe, and by producer countries' own efforts.

At least 70 per cent of Chatham House expert perceptions survey respondents in each producer country felt that larger concessionaires and companies supplying more sensitive markets had improved their response to illegal logging in the last year. An examination of data for relevant schemes shows that independent certification of sustainable timber production continues to grow in producer countries, and has been outstripped in the last three years by growth in legality verification. The area of sustainability-certified or legality-verified production forest doubled in Cameroon and trebled in Indonesia between 2006 and 2009 (see Figure 2). More than a third of licensed harvesting in Malaysia and Cameroon is now independently verified as legal or sustainable. The number of companies with chain-of-custody certificates for handling wood certified as sustainable by the Forest Stewardship Council in the seven consumer and processing countries increased fourfold in the three years to 2009.

Much more could be done, however. Most of the recent growth in independent certification and verification has been to a low 'legal origin' standard, which does not examine actual harvesting practices. Verification of compliance with all relevant laws would be of greater value. No production forest has yet been certified or

Figure 2: Certified sustainable and verified legal natural production forest in producer countries, 2006 and 2009



Source: Chatham House, 2010. Includes only certifications/verifications of natural forest for timber. For more information, see the full report at www.illegal-logging.info/indicators.

verified in Ghana, while in Brazil growth has stalled, partly because unclear tenure makes it difficult to prove legality. The study's indicators suggest that, relative to the size of their industries, the private-sector response in France and Japan has lagged behind the other consumer countries: strengthening these countries' procurement policies may help them catch up.

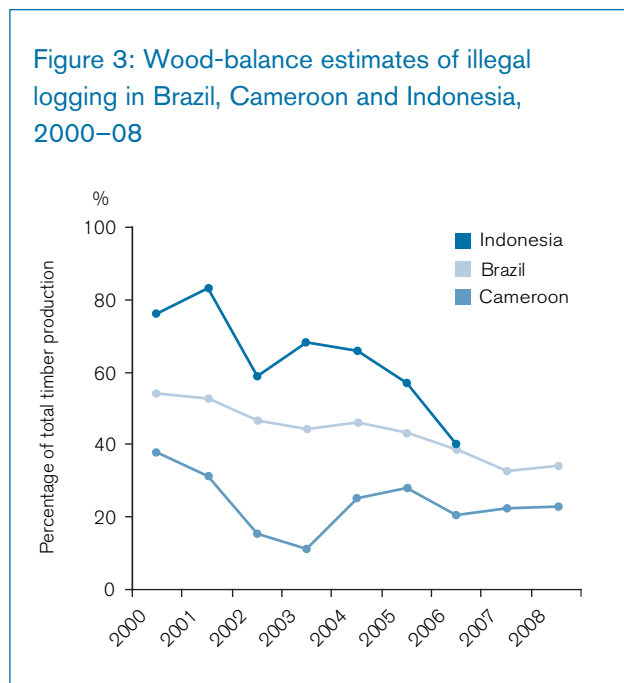
Levels of illegal logging and associated trade

Producer countries

Wood-balance analysis indicates that illegal logging has fallen by 54–75 per cent in the Brazilian Amazon over the last ten years. The greatest reductions have occurred in the last five years, and show a close correlation with a dramatic fall in deforestation rates. Equivalent analysis for Cameroon shows illegal logging falling by about half since the late 1990s, although this is due solely to a reduction in illegal logging for export markets, and small-scale illegal production for the domestic market may have increased. Wood-balance analysis suggests that between 2000 and

2006 logging in excess of licensed harvests in Indonesia was reduced by 75 per cent. Wood-balance analyses for Ghana and Malaysia were inconclusive on long-term trends for illegal logging.

Figure 3: Wood-balance estimates of illegal logging in Brazil, Cameroon and Indonesia, 2000–08



The conclusions from the wood-balance analysis (which tends to understate illegal logging because it only captures logging in excess of approved harvest volumes, and therefore fails to capture illegalities within them) are supported by other indicators. A large majority of surveyed experts in Brazil and Indonesia, including a large majority of NGO respondents, believed that the situation had improved in the last five years. Expert perceptions indicate that there may also have been some improvement in Ghana and Malaysia. An analysis of trade data discrepancies indicates that log smuggling from Indonesia to China has fallen 92 per cent since 2004. A simple majority of survey respondents in Brazil, Ghana and Indonesia felt timber prices had increased recently because of a reduction in supplies resulting from increased enforcement.

Despite the considerable reductions seen in some cases, the study finds that illegal logging remains a major problem in all the producer countries studied. Wood-balance analysis and the survey of experts (the latter generally producing the higher estimates) suggest that illegal harvesting continues to represent 35–72 per cent of logging in the Brazilian Amazon, 22–35 per cent in

Cameroon, 59–65 per cent in Ghana, 40–61 per cent in Indonesia, and 14–25 per cent in Malaysia. Although there is less illegal logging in Malaysia than in the other four countries, both the survey and the wood-balance analysis suggest that the problem is worse than commonly thought.

Some aspects of the problem have declined more than others. An increasing proportion of illegal timber is now being consumed by domestic markets in producer countries, and much of this comes from small-scale artisanal (non-industrial) logging. Wood-balance analysis suggests that such logging accounts for three-quarters of illegal timber production in Ghana, and nearly all illegal production in Cameroon. The perceptions surveys suggest that smaller-scale illegal logging by unauthorized companies has declined less than that by larger concessionaires, and that artisanal illegal logging, less easily detectable illegal harvesting practices by licensed companies within logging concessions, and logging-related corruption are among the most intransigent aspects of the problem. Corruption may have actually worsened in some cases in response to increased enforcement.

Consumer and processing countries

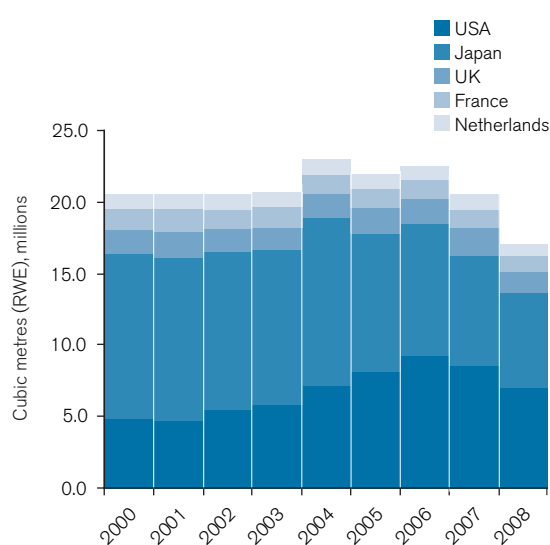
Detailed modelling by Chatham House suggests that imports of illegally sourced wood products by the seven consumer and processing countries have fallen 30 per cent since reaching a peak in 2004 (for consumer countries see Figure 4). The analysis also indicates that consumption of illegally sourced wood products is falling on a per capita basis in all seven countries. Imports of illegal wood are falling as a percentage of overall wood imports in all of the countries examined, with the exception of the US.

The recent economic slowdown has played a part in reducing flows of illegal wood by reducing overall trade, but the peak in estimated imports occurred well before that. The main influence on the estimates is the large reduction in illegal logging in Indonesia, although other aspects of the response elsewhere have also been a factor.

The analysis shows that a growing proportion of imports of illegal wood products by consuming countries are of processed products (particularly furniture) which are manufactured in third countries. Between 2000 and 2008, the proportion of illegal wood which arrived in consumer countries via such processing countries increased from 15 per cent

to more than 50 per cent. For the US and UK the proportion of indirect imports is even higher. These trends present an increasing challenge for buyers in consumer countries, since they make it more difficult to trace timber origin and eliminate illegal wood from supply chains. They also present challenges for authorities charged with enforcing new prohibitions on the import and sale of illegal wood.

Figure 4: Import-source estimates of illegally sourced wood-product imports by consumer countries, 2000–08



Annual imports of illegally sourced wood products by the seven countries studied are still very large, estimated to be worth more than US\$6 billion in 2008. Of the five consumer countries, the US imports the most illegally sourced wood while Japan has the highest per capita consumption of illegal wood and highest percentage of overall imports estimated to be illegally sourced. China now imports more than twice as much illegally sourced timber from affected producer countries as the five consumer countries combined.

Impacts of reduced illegal logging

The wood-balance estimates of reductions in illegal logging in Brazil, Cameroon and Indonesia have been used to determine the area of forest that may have been protected from illegal degradation and possible eventual destruction. Compared with a baseline scenario in which illegal logging had continued at peak rates over the decade

and the timber harvested selectively at a relatively low intensity rate, around 17 million hectares – an area larger than England and Wales combined – has been protected. This may in turn have helped avoid emission of between 1.2 billion and 14.6 billion tonnes of carbon dioxide over the ten years – or up to half of total annual anthropogenic emissions. Alternatively, if all the timber were logged legally instead, as much as \$6.5 billion in additional revenues might be accrued by the three governments concerned – twice what the world spends each year in overseas aid for primary education.

Compared with a generous rough estimate of the total amount spent worldwide on helping reduce illegal logging in the three countries over the last ten years, these reductions represent an impressive rate of return: possibly as little as ten cents per tonne of carbon dioxide, or as much as \$6 in additional revenues for every \$1 invested.

Conclusions

The Chatham House research has demonstrated that illegal logging has declined substantially in recent years in three of the countries most badly affected, and that this has been due largely to combined efforts to tackle the problem. Increased enforcement has been important in Brazil and Indonesia, and the introduction of independent monitoring of forest law enforcement and governance in Cameroon. Actions to tackle illegal logging by governments and the private sector in consumer countries have played an important role in Cameroon, and have also driven progress in Indonesia. These actions, and those in the producer countries themselves, have in turn often been driven by awareness-raising by non-governmental organizations.

Although illegal logging has declined, it remains a major problem and where progress has been made additional gains are likely to become increasingly hard to achieve. In seeking to bring illegal logging and associated trade to a complete end, it is important that policy-makers and other stakeholders take note of the lessons from the past and the changing nature of the problem.

Chatham House’s research suggests that greater effort in the producer countries studied is now needed in aspects of illegal logging which have seen least improvement: logging by smaller-scale concessionaires, domestic producer-

country markets for illegal wood products, and failure to gazette forest concessions.⁴ Although increased enforcement has reduced the more blatant forms of illegal logging, more persistent and less easily detected forms are becoming increasingly important, including illegal harvesting by licensed companies within concessions, and the illegal issuance of licences to clear forest for agricultural plantations. Addressing these forms of illegality will require a more profound overhaul of regulations in producer countries.

In consumer countries, the limits of what can be achieved by government procurement policies and voluntary private-sector action driven by NGOs are being approached. Further improvements now depend upon enacting and implementing well-designed prohibitions on the import and sale of illegal wood. Although the US has already enacted such a law and the EU is in the final stages of doing so, Japan's very large market remains open to illegal wood and it is important that the country follows suit.

Initiatives to clean up complex supply chains for products originating in China have encountered serious problems and, with most consumer-country imports now arriving via such third-party processing countries, it is essential that these countries also take more substantial action. The most important step would be to ban the import and sale of illegally sourced wood, but this should also be backed up with a requirement for credible evidence of legality for timber imports, such as the FLEGT legality licences soon to be in place for exports from producer countries that are negotiating VPAs with the EU.

Ultimately, there will be limits to the potential of actions in consumer and processing countries unless they work closely with the countries where illegal logging occurs. Chatham House's research has demonstrated that such engagement – in the form of EU VPAs – can have a crucial broader role to play beyond preventing illegal wood reaching consumer countries, including helping improve producer-country policies and regulations and enhance transparency. This is doubly important given that – as this research has shown – an increasing proportion

of illegal timber is now being consumed domestically or exported to less sensitive markets.

Attention to illegal logging by NGOs, governments and the media has declined as the focus shifts to the role of forests in climate change. Illegal logging and weak forest governance are not the only drivers of degradation and deforestation, but if they are to be effective, mechanisms to encourage developing countries to reduce emissions from deforestation and forest degradation (REDD) will require secure control and sound governance of forest resources. Efforts to tackle illegal logging and improve forest governance have already proved to be successful and cost-effective, and it is essential that the climate change agenda for forests serves to reinforce this response, rather than distract from it.

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Cover image: Illegally harvested teak, Npaba, Burma (Myanmar), June 2005
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⁴ Gazetting is the process by which the boundaries of areas licensed for timber harvesting are legally established on maps and on the ground. In most cases this involves consultation with affected communities.