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THE ROLE OF CITES IN COMBATING ILLEGAL LOGGING ~ CURRENT AND POTENTIAL

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Front cover photograph: Alerce trees *Fitzroya cupressoides*, Lago Frias, Bariloche, Argentina.

Photograph credit: WWF-Canon/James Frankham.

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Credit: WWF-Canon/Alain Compost

Extracting agarwood in Kayan Mentarang National Park, Eastern Kalimantan, Indonesia.

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LIST OF ACRONYMS AND ABBREVIATIONS ASSOCIATED WITH THIS REPORT

AC	CITES Animals Committee
AAC	Annual Allowable Cut
AFP	Asia Forest Partnership
CBFP	Congo Basin Forest Partnership
CIFOR	Centre for International Forestry Research
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
Conf.	Conference
CONAF	Chile's Corporación Nacional Forestal (Forest service)
CoP	CITES meeting of the Conference of the Parties
EU	European Union
Eurostat	Statistical Office of the European Communities
FAO	United Nations' Food and Agriculture Organization
FLEG	Forest Law Enforcement and Governance
FLEGT	Forest Law Enforcement and Governance and Trade Action Plan
FSC	Forest Stewardship Council
HS	Harmonised System of classification of goods in international trade
IBAMA	Brazilian Institute for the Environment and Renewable Natural Resources (*Instituto Brazileiro do Meio Ambiente e dos Recursos Naturais Renovaveis*)
ILO	International Labour Organization
INRENA	*Instituto Nacional de Recursos Naturales*, CITES Management Authority, Peru
ITTO	International Tropical Timber Organization
IUCN	IUCN-The World Conservation Union
LEI	*Lembaga Ekolabel Indonesia*—Indonesian timber certification scheme
LSS	Large Squares and Scantlings
MA	CITES Management Authority
MWG	CITES Big-leaf Mahogany Working Group
NC	CITES Nomenclature Committee
NDF	CITES Non-detriment Finding
NGO	non-governmental organization
PC	CITES Plants Committee
PEFC	Pan-European Forest Certification
PHKA	Directorate General of Forest Protection and Nature Conservation, Ministry of Forestry, Indonesia
PIAIL	United States' President's Initiative Against Illegal Logging
PWG	CITES Plants Working Group
SFI	Sustainable Forest Initiative
SFM	Sustainable Forest Management
SIF	National Forestry Superintendence, Bolivia
SIVEX	Single Counter System for Exports (SIVEX) under the Secretary of Industry and Commerce, Bolivia
SKSHH	Indonesian certificate of forest product legality (*Surat Keterangan Sahnya Hasil Hutan*)
spp.	species
TNC	The Nature Conservancy

TPTI	*Tebang Pilih Tanam Indonesia* (Indonesian silvicultural system related to diameter size and age structure)
TWG	CITES Timber Working Group
UNECE	United Nations Economic Commission for Europe
VMARNDFs	Bolivia's Vice Ministry of the Environment, Natural Resources and Forestry Development
WCO	World Customs Organization
WWF	WWF, the global conservation organization
WSSD	World Summit on Sustainable Development

EXECUTIVE SUMMARY

In recent years, various organizations analysing statistics on illegal logging have attempted to arrive at best 'guesstimates' for countries like Bolivia, Brazil (Amazon), Cameroon, Colombia, Ghana, Indonesia, etc., with figures that varied between 20% to 85% of wood harvested being illegal. However, none of the estimates is reliably based on hard data or provides sufficient details to link specific volumes or percentages to the different types of illegality.

Illegal logging and illegal timber trade are significant problems and current efforts to combat these are varied and encompass different activities conducted at local, national, regional and international levels. There has been a wide range of initiatives designed to highlight and combat illegal logging in recent years, including the G8 summit in Birmingham in 1998, which highlighted illegal logging as an issue, the Forest Law Enforcement and Governance (FLEG) initiative for Asia, in 2001, and the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, which led to the announcement of the Asia Forest Partnership (AFP) and the Congo Basin Forest Partnership (CBFP). Some governments, like that of Indonesia, have resorted to bilateral or regional agreements with their trading partners in an attempt to gain urgent support and focus on issues relating to illegal logging occurring within their countries. The European Union (EU) approached the illegal logging issue through the development of the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, which would create a voluntary, bilateral, export licensing system for legal timber with partner countries for a small set of unprocessed and minimally processed commodities initially. The International Tropical Timber Organization (ITTO), as the only tropical timber commodity agreement between producer and consumer nations, is solely concerned with international tropical timber trade and places illegal logging high on its agenda for action. The World Bank has been involved in forest law enforcement and governance issues since the early 1980s. It has actively engaged in high-profile international and regional FLEG processes since 2001, including through catalysis of the Asia FLEG process mentioned above and FLEG initiatives for Africa, Europe and North Asia.

Pre-dating these international initiatives is CITES, or the Convention on International Trade in Endangered Species of Wild Fauna and Flora, which already provides a mechanism to regulate international trade in timber species and products. CITES is a convention that aims to control the international trade in certain critically endangered species and to regulate and monitor trade in other species that are believed to be vulnerable to over-exploitation. It is considered the only international mechanism that could regulate international trade in wild species, including timber, between all 167 of its Parties. By extension, it could have a role in combating illegal logging. One of the difficulties in assessing such a role is that there appears to be a lack of an internationally accepted definition of what constitutes legality of timber products in general. The scope of the definition of legality is wide.

CITES-listed species, regulated through a permitting system, are grouped in three CITES Appendices—Appendix I, II and III. The regulation of the trade in CITES species is not restricted to whole animals and plants, either dead or alive, but also includes readily recognizable parts or derivatives. Parties to CITES are obliged to implement CITES through the adoption of domestic regulations.

The tree species under CITES with the highest international profiles are Big-leaf Mahogany *Swietenia macrophylla* in the Americas, Afrormosia *Pericopsis elata* in Africa and, most recently, ramin *Gonystylus* spp. in Southeast Asia. For non-timber forest products, the highest-profile species is probably Agarwood *Aquilaria malaccensis*, a highly valuable non-timber forest product renowned for its fragrance.

The World Bank commissioned TRAFFIC to investigate the role of CITES in combating illegal logging and, specifically, to:

- Collect information on legislation and administrative procedures relating to issues of illegality of forests and timber trade.
- Define what is meant, both legally and operationally, by 'illegal logging' and 'illegal timber'.
- Analyse and document, based on the above definitions, the range of illegality and analyse the opportunities and constraints of CITES for each of the three Appendices to reduce illegal logging and enhance forest governance in the following areas: administration; policy; legislation; Non-detriment Finding (a CITES requirement—see below); enforcement and penalties; identification of products in trade; training; co-ordination; and international support.
- Develop recommendations on ways of linking CITES to national-level measures to control illegal logging.

Review of the various tools available in CITES concluded that there were several aspects of CITES that can assist in controlling levels of timber trade and, sometimes therefore, levels of illegal harvesting. These include its:

- monitoring (permitting) system, including annual reporting of trade by CITES Parties to the CITES Secretariat and the maintainance of an associated CITES trade database;
- requirement for sustainable harvesting;
- requirement for adherence to national laws of exporting Parties for the protection of fauna and flora;
- requirement for enactment and enforcement of national laws for its implementation.

Its provision for

- a practical solution to identification problems ('look-alikes') and
- its value as an agent for change and international co-operation

are also worth noting with respect to its potential for affecting illegal logging.

The **monitoring system** of CITES provides for inspections at both export and import, which has the potential to make it much more difficult for illegally logged products to escape detection. There is a standard set of procedures and a paper trail that accompanies each CITES shipment and these are additional to any existing requirements of the national forestry regulations, unless these and CITES provisions are integrated. Appointing an agency that manages forests, such as IBAMA in Brazil and INRENA in Peru, as the CITES Management Authority (MA) within a Party can give monitoring of timber trade a valuable boost. For many countries, however, the CITES MA tends to be the wildlife department or some other agency that is not responsible for forest management. In such cases, co-ordination is extra important for enforcement of trade controls and national laws governing forestry, especially where these are separate from those relating to CITES controls. Whatever the practice, in theory, CITES trade data constitute one of the most comprehensive sets of data on species in trade and can indicate instances of illegal trade which may, in turn, be used to trace illegal logging.

CITES insists on **sustainability** for trade in Appendix-I and Appendix-II species. To support this aim, it has a policy of requiring Non-detriment Findings (NDFs) for such species and supports this policy with its Review of Significant Trade. NDFs focus on determining if the harvest of a species in Appendix II (or, more rarely, Appendix I) for export would be detrimental to the role of the species in the ecosystem throughout its range. The

Review of Significant Trade comprises biological, trade and regulatory evaluation of a species identified for review. The recommendations of the Review, once endorsed by either the Plants or Animals Committee (as appropriate), are binding on the target Party to implement, and include the possibility of punitive action to ensure adherence to the recommendations. In this way, CITES is well equipped to act against unsustainable logging, which may also be illegal logging.

Although CITES implementation focuses on international trade, CITES also has a specified and important link to domestic legislation. It states that the issuance of CITES export permits is conditional upon adherence to the **domestic regulations for the protection of fauna and flora** of the exporting Party. CITES permits and certificates should, therefore, constitute certification that timber in trade has been obtained in accordance with a country's wildlife protection laws, which—if these govern timber extraction—should guard against illegal logging. However, CITES licensing controls and extraction controls are sometimes dissociated and the ability to exclude illegally logged timber from trade is only as good as the national legislative and administrative systems in place to govern these within a given CITES Party. In reality, even the simplest of steps to link tracking of timber from forest to permit application are, in general, not taken by Parties.

Still in the realm of domestic legislation, CITES also contributes to efforts to combat illegal logging **by requiring Parties to enact and enforce laws for its proper implementation**, including, therefore its requirements for demonstrably sustainable harvests of its listed tree species.

CITES offers some level of solution to identification difficulties in implementing laws for the protection of species through its **'look-alikes' provision**. Finally, it is founded on principles of **international co-operation** and, as a high-profile international organization, seems able sometimes to act as a **spur for positive conservation action** at national level beyond any specific requirements of membership.

The various aspects of CITES which could contribute to its role in combating illegal logging may have differing impacts according to which CITES Appendix is used. Some Parties find **Appendix I** a useful tool to complement domestic regulation for highly endangered species. If trade is proven to be seriously and drastically affecting the survival of a species, Appendix-I application could help to protect the species from the demands of international trade. In some cases, simply the threat of a proposal to list a species in Appendix I could provide a strong enough incentive for some range countries which harvest and trade in high volumes to take additional measures to safeguard the species from over-exploitation. Appendix I should be used with care, however, as it can remove possible incentives to encourage sustainable use and management, as well as have an impact on livelihoods. It can also be circumvented, for example by use of pre-Convention stocks and the entering of reservations. Appendix-I listing in the case of Alerce, appears to have reduced demand for Alerce and, correspondingly, illegal harvest, as implied by the significant reduction in export of Alerce recorded in CITES trade data. It may be possible to achieve similar positive results if other timber species are listed under this Appendix, but, as cautioned above, Appendix I should be a last resort.

Listing a species in **Appendix II** could become a powerful agent for change in the regulatory framework of those range countries where the law relevant to logging and related trade is weak. This appears to have worked for some Agarwood range countries where the law was inadequate to control the trade. CITES then becomes an external agent for change, but unless such change is pursued as far as making the link between CITES requirements and national controls on harvesting, which could be as straightforward as undertaking an administrative procedure, use of CITES to curb illegal logging will not be maximized. Non-detriment Findings, Reviews of Significant Trade and indeed any other CITES requirements do not, of themselves, provide this link.

A CITES Party listing a species in **Appendix III** has already demonstrated its commitment to conserving that species, as it must already have adequate regulatory provisions domestically for this purpose, including for effective enforcement of the listing. These could include legal provisions which are quite restrictive, as imposed by Indonesia for ramin, to curtail illegal logging. A listing in this Appendix can be a useful tool to increase awareness and enhance such regulatory controls and to seek assistance from other CITES Parties in their endeavours. The effect on other range States is still debatable. Appendix III is not associated with the same degree of rigour in monitoring and control as the other two Appendices, nor are range States required to vouchsafe sustainability. When Appendix III is perceived to have failed, however, Parties may attempt to transfer species to Appendix II. In this case, those Parties that have been improving their CITES Appendix-III implementation will be much further towards meeting the additional Appendix-II requirements.

There are **a number of recommendations that could be adopted** to link CITES with measures to control illegal logging at national level, as follows:

Monitoring

- All countries which export CITES-listed tree species should develop a means of tracking the chain of custody for products from these species, with a view to showing up illegal practice. This should be a responsibility of MAs and should be one of the checks on the checklist mentioned below. Issuance of a CITES export permit should be contingent upon satisfaction that the chain-of-custody requirements are in order.

- CITES MAs and Customs in importing countries could request additional documentation to accompany CITES shipments as proof of legal harvesting. Examples of such documentation could include royalty collection receipts, transportation permits, etc. As this will require stricter measures from importing countries, consideration should be given to the question of sovereignty and trust.

- CITES Parties, in particular Scientific Authorities (SAs) from countries that have proposed a listing, should conduct regular analysis of data in the CITES Trade Database in order to scan for indications of illegal trade, which may be based on illegal logging.

- The CITES Secretariat should carry out periodic review of global trade, with results feeding into the CITES Plants Committee, since a comparative analysis of CITES trade data may be able to highlight areas where illegal harvesting may have occurred, for further investigation.

- Parties with CITES-listed timber exports should take steps to secure the involvement of forestry departments in the CITES implementation process—through formal inter-agency working agreements and decision-making structures or by formally designating such departments as the CITES MA for timber species.

- Co-ordination between various agencies that manage timber resources and the MA in a given Party, whether those functions are within the same department or not, as well as co-ordination with the SA, should be given a high priority. Co-ordination is crucial to the successful implementation of CITES. The ability to integrate the regulatory provisions at all stages of management and trade prior to the issuance of a CITES permit and certificate is a very strong signal of sustainability and legality. This co-ordination should extend to the responsibility of carrying out enforcement and the related challenges of

identification of species, identification of CITES documentation fraud, taking preventive measures against laundering and smuggling, etc.

Sustainability

- Measures to be taken by CITES to ensure compliance with national sustainable forest management standards:

  - Review of Significant Trade, when applied for timber species, should look hard at coherence between CITES NDF requirements and forest management standards and implementation.

  - Range countries require assistance in determining NDFs for CITES-listed timber species. International communities are providing aid to determine NDFs for mahogany, but more technical and financial assistance is needed for conducting NDFs for all the other listed timber species. IUCN has been conducting workshops to improve the understanding of the technical requirements for NDFs. More such workshops should be conducted in various countries and regions.

  - The CITES Secretariat should assess whether all range countries have mandated the preparation of forest management plans and forest inventories as the basis for the annual harvesting volumes for CITES tree species. This assessment can be carried out through consultancies by independent organizations, including NGOs, and should be presented to the Standing Committee for oversight of progress to reduce the impact of illegal logging.

National regulation

- More emphasis should be given to CITES requirements to consider legal acquisition in permitting decisions.

- Individual Parties exporting CITES-listed tree products should consider development and adoption of a checklist of protocols for forest product harvest trade for MAs, which could be used before issuance of CITES permits and certificates, in order to ensure that specimens for export are obtained in accordance with national laws for the protection of fauna and flora. This assumes that countries themselves have provisions to curb illegal extract, for example, low-impact operating procedures and schemes for sustainable management and trade.

Identification

- Parties should, in future, propose species for listing that include ‘look-alikes’, owing to enforcement problems with identification. Listing considerations should be carried out with care and include consultation with all stakeholders and range States. Since timber is often in commerce under a trade name, identification problems can relate just as much to names as to appearance. Such implementation problems should be avoided by thorough investigation before listing proposals are submitted.

Choice of Appendix

- Appendix I should only be used as a tool to curb illegal logging if it is felt, after comprehensive analysis and study, that it will remove the incentive to trade internationally in the tree species in question. Any possible negative side-effects of such a listing should be taken into account and the listing should be used as a last resort.

- CITES Appendix II should be considered the most important tool CITES has at its disposal to help combat illegal logging and should be employed where other measures are failing and where a species-focused approach might have significant impact.

- If Parties use Appendix III to attempt to control illegal logging, all range States should place greater emphasis on implementing Appendix-III provisions correctly and on linking the trade to domestic regulations on legal harvesting, sustainable forest management and chains of custody, to ensure trade can be monitored. In this way, importing countries could automatically stop any shipment of an Appendix-III specimen without a CITES permit, confident that the shipment was illegal.

BACKGROUND AND INTRODUCTION

Illegal logging and instruments for its control

In recent years, various organizations analysing statistics on illegal logging have attempted to arrive at best 'guesstimates' for countries like Bolivia, Brazil (Amazon), Cameroon, Colombia, Ghana, Indonesia, Peru, etc., with figures that varied between 20% to 85% of wood harvested being illegal. Even within one country, for example Indonesia, the figures varied between 40% to 80% of total wood supply although none of the estimates are reliably based on hard data or provide sufficient details to link specific volumes or percentages to the different types of illegality (Smith, 2002; Contreras-Hermosilla, 2002; and Anon., 2004a). These figures were gathered from various sources and are difficult to quantify owing to the remoteness and range of illegal activities taking place, as well as the possibilities of corruption concealing the extent of the illegality.

It is evident that illegal logging and illegal timber trade are significant problems that impact on national economies and local livelihoods, as well as on conservation of forests and species, and current efforts to combat these problems are varied and encompass different activities conducted at local, national, regional and international levels. Correlation between the legality of the resource and the legality of the trade is not linear and legal timber products could become illegal as they move along the supply chain.

Illegal logging is a national issue and domestic laws should provide the legal framework to stop it. Once the illegally harvested logs are processed and exported, there are limited provisions in the regulatory framework of the importing countries to take action against illegal logging. A possible exception is the *Lacey Act*, which in theory gives the US prosecutor the legal basis to take action if the imported products can be proven to have violated the laws of the country of export. Such far-reaching authority to defend the regulation of another country does not exist elsewhere. Currently, there is no readily available international mechanism that could be used to combat illegal logging with the possible exception of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Therefore, the World Bank commissioned TRAFFIC to:

- Collect information on legislation and administrative procedures relating to forests and timber trade.
- Define what is meant, both legally and operationally, by 'illegal logging' and 'illegal timber'.
- Analyse and document, based on the above definitions, the range of illegality and analyse the opportunities and constraints of CITES for each of the three Appendices to reduce illegal logging and enhance forest governance in the following areas: administration; policy; legislation; Non-detriment Finding (a CITES requirement—see below); enforcement and penalties; identification of products in trade; training; co-ordination; and international support.
- Develop recommendations on ways of linking CITES to national-level measures to control illegal logging.

This study may capture some information related to timber trade, but its scope is limited to consideration of how to tackle illegal logging. This report will review the various tools available in CITES and determine if any of them can help to address illegal logging. It includes case studies of CITES-listed tree species to illustrate the role of CITES—current and potential—in combating illegality in the trade in forest products, with particular reference to illegal logging. The species chosen for case studies are Alerce *Fitzroya cupressoides* (Appendix I), Agarwood *Aquilaria malaccensis* (Appendix II), Big-leaf Mahogany *Swietenia macrophylla* (Appendix II) and ramin *Gonystylus* spp. (Appendix II). The case studies give insight into a range of scenarios possible within CITES. For example, Alerce is an Appendix-I timber species and in the past has been the subject of a reservation,

on the part of Chile (withdrawn on 12 April 2005); Agarwood (*Aquilaria malaccensis*), in trade as a non-timber forest product (and not logged, strictly speaking, but nonetheless felled), has been the subject of CITES Review of Significant Trade; Big-leaf Mahogany, a highly valuable commercial timber species, has a rich history in CITES, having initially been listed in Appendix III and subsequently in Appendix II; and ramin, also valuable timber species, were listed in Appendix III but transferred to Appendix II at CoP13, in October 2004. The ramin case study provides an interesting study of regional co-operation on trade controls and the application of Non-detriment Findings (a CITES tool for examining sustainability of harvest), as well as of the use of a reservation (by Malaysia) with respect to certain parts in trade. This reservation was rescinded by Malaysia on 7 June 2005 (CITES *Notification No. 2005/046* relates). Finally, conclusions and recommendations on ways to link CITES to national level measures to control illegal logging are provided.

Recent international initiatives on illegal logging and timber trade

There has been a wide range of initiatives to highlight and combat illegal logging in recent years. One of the most significant co-ordinated international efforts at highlighting the issues of illegal logging was taken at the G8 summit in Birmingham in 1998, which was followed by the ministerial declaration on Forest Law Enforcement and Governance (FLEG) in Asia in 2001, and the FLEG conferences in Europe and Africa in 2002 and the Europe and North Asia FLEG in 2005. At the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, the Asia Forest Partnership (AFP) and the Congo Basin Forest Partnership (CBFP) were announced. The AFP was an initiative by the Governments of Japan and Indonesia, as well as the Center for International Forestry Research (CIFOR) and The Nature Conservancy (TNC) to promote conservation forest management in Asia by addressing issues in illegal logging, control of forest fires and rehabilitation, and reforestation of degraded forest lands, governance and forest law enforcement and capacity building. Similarly, the CBFP is a consortium of governmental and non-governmental organizations seeking to promote sustainable forest management in the Congo Basin region, including by tackling illegal logging.

In recent years, some governments have resorted to bilateral or regional agreements with their trading partners in their attempt to gain urgent support and focus on issues relating to illegal logging occurring within their countries. For example, the Indonesian Government has signed a series of bilateral agreements or memoranda of understanding with the UK, Japan, Republic of Korea and China, with a commitment towards co-operation on technical assistance and enforcement. The FLEG ministerial declaration for Africa was announced in 2003, and the USA's President's Initiative Against Illegal Logging (PIAIL) committed the USA to provide financial and technical assistance to combat illegal logging. The European Union (EU) approached the illegal logging issue through the development of the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, which would create a voluntary bilateral export licensing system for legal timber with partner countries for a small set of unprocessed and minimal processed commodities initially. The EU has begun the process for achieving the voluntary partnership agreement and has identified a few key producer countries in African and Asia for fact-finding missions and inter-governmental discussions. An EU mission from the Netherlands to Malaysia was conducted in June 2005 and the negotiations for the FLEGT Voluntary Partnership Agreement (VPA) will begin in earnest in 2006. Similar VPA negotiations are being conducted in Cameroon (led by the German *Gesellschaft für Technische Zusammenarbeit* (GTZ), on behalf of the EU), Ghana (led by the UK Department for International Development (DFID)) and the Republic of the Congo and Gabon (led by the French Ministry of Foreign Affairs). The International Tropical Timber Organization (ITTO), as the only tropical timber commodity agreement between producer and consumer nations, is solely concerned with international tropical timber trade and places illegal logging high on its agenda for action. The commitment of ITTO to the promotion of sustainable forest management (SFM) and timber production means that illegal logging and illegal timber trade must be addressed

effectively and urgently if the SFM objective is to be met. ITTO, in support of CITES-listed Big-leaf Mahogany and ramin, decided at the 37th Session of the Council meeting in December 2004, to provide funds for various CITES implementation activities, such as strengthening capacity-building, enhancing information and knowledge exchange, co-operation and networking, as well as supporting the work of the Tri-National Ramin Task Force (see case study on ramin) and training workshops. The World Bank has been involved in forest law enforcement and governance issues since the early 1980s. It has actively engaged in high-profile international and regional FLEG processes since 2001, catalysing the Asia FLEG process and making FLEG initiatives for Africa, Europe and North Asia..

However, pre-dating these international initiatives, CITES already provided a mechanism to regulate international trade in CITES-listed timber species and products and is considered the only international mechanism that could regulate international trade in wild species, including timber species, between the many countries which are party to it. The number of Parties has continued to increase since CITES became effective, in 1975, and, as of June 2006, stands at 169.

METHODS

A literature search was carried out to collect information on legislation and administrative procedures relating to forests and timber trade and on definitions of 'illegal logging' and 'illegal timber'. Field visits were made to key mahogany range States to collect information and conduct interviews, but this was mainly a desk study to collate and interpret relevant documentation.

LEGAL AND OPERATIONAL DEFINITIONS OF ILLEGAL LOGGING AND ILLEGAL TIMBER

For this study about CITES and illegal logging, the relevant laws in most countries are, above all, forestry laws governing the extraction of logs. The interpretation of illegal logging according to such laws could be wide ranging and complicated in practice. Numerous studies have documented what constitute the legal and operational definitions, or range of definitions, of illegal logging and illegal timber in trade (see **Tables 1** and **2**; Callister, 1992; Anon., 2002a and Contreras-Hermosilla, 2002). As illustrated in the tables below, illegality in the forestry sector is very wide ranging in its potential application and can refer to the entire trade chain from the stump to the end consumer. This section compiles those definitions that are widely accepted and will attempt to draw out the link to CITES.

CITES has particularly powerful text in its Articles relating to the legality of trade in species listed in its Appendices I, II and III, stating that:

> *…the export of any specimen of a species included in Appendix* [I. II or III] *shall require the prior grant and presentation of an export permit. An export permit shall only be granted when.....a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora.……*

To take the above statement literally, the phrase 'contravention of the laws' and the word 'protection' should mean that CITES can and should have reference to the wildlife protection laws of exporting Parties during any part of the chain of transactions of a CITES-listed specimen, from habitat, to export, import, and right to the end-consumer. That can be taken to mean that CITES can take action using national laws, if they exist, to address

Table 1

Examples of types of illegal practice in the forestry sector

Illegal occupation of forest lands

A1. Invasion of public forested lands by rural families, communities or private corporations in order to convert to agriculture or other uses
A2. Practice of slash and burn agriculture on invaded lands
A3. Landless peasants illegally occupying forested areas to force governments to grant land ownership rights to them and buying land from peasants
A4. Obtaining logging concessions through bribes.

Illegal logging

B1. Logging protected species
B2. Logging outside concession boundaries
B3. Logging in protected areas
B4. Logging in prohibited areas other than B3 – e.g. steep slopes, river banks, catchments areas
B5. Removing under/over-sized trees
B6. Extracting more than the allowable harvest
B7. Logging without authorization
B8. Logging when in breach of contractual obligations

Illegal timber transport, trade and smuggling

C1. Export/import of timber from protected/restricted species
C2. Log export/import in defiance of trade ban
C3. Illegal export/import of restricted timber other than C1 and C2
C4. Other unauthorized movement of timber across State, national or international boundaries
C5. Unauthorised domestic movement of timber (usually illegally harvested timber)
C6. Exporting and importing specimens of tree species banned under international law, such as CITES, or those traded without proper documentation across international boundaries

Transfer pricing and other illegal accounting practices

D1. Declaring lower values and volumes on exports…
D2. …on imports
D3. …on provision of services, including manipulating debt cash flows to transfer money to a subsidiary or parent company, e.g. inflating debt repayment to avoid taxes on profits

Under-grading, under-measuring, under-valuing

E1. Under-grading timber
E2. Under-declaration of volume/quantity
E3. Under-valuing export or domestic price of timber

Misclassification of species

F1. Misclassification of species to avoid higher taxes, royalties or duties
F2. Misclassification of species to circumvent species-specific harvest and/or trade restrictions
F3. Classification of lesser-used species as accepted market species in order to gain market access

Illegal processing of timber

G1. Operating without a processing licence
G2. Ignoring environmental, social and labour laws and regulations
G3. Using illegally obtained wood in industrial processing

Source: After Callister, 1992; FAO, 2002; and Contreras-Hermosilla, 2002.

any of the illegal practices listed in **Table 1**. It can also be taken to imply that, if any illegally obtained specimen is legitimized for whatever reason as it moves along the trade chain, the legality of obtaining the specimen can still be brought to question. The analysis in later sections of this study will examine the practical implications for implementation of this theory.

The CITES permitting system, through the provisions of the Convention text relating to legal procurement, is designed to ensure that internationally traded timber is not illegally obtained. Processes for legitimizing illegally obtained product as it moves along the trade chain are illustrated in **Table 2** below. Column 2 of **Table 2** refers to the legality of the source or origin of timber, i.e. whether the timber was harvested in compliance with the laws of the country of origin. Legality of timber in column 3 refers mainly to the legality of the transportation of the timber from source to the point of export. Columns 4, 5 and 6 refer to illegality owing to the lack of appropriate CITES or other documentation. Note that **Table 2** does not include a separate category for 'legality of import' because, for the purposes of this discussion, it is assumed that if exports are CITES-legal then the legality of imports is not an issue (however, it is recognized that this assumption may not always hold—especially in the case of exports from a non-Party to a Party).

Table 2
Types of legal and illegal timber in international trade

(1) **Type**	(2) **Legality at source/origin**	(3) **Legality of timber**	(4) **Legality of export**	(5) **Exporter record**	(6) **Importer record**
(i)	Legal	Legal	Legal	Recorded	Recorded
(ii)	Legal	Legal	Illegal	Not recorded	Not recorded
(iii)	Legal	Legal	Illegal	Not recorded	Recorded
(iv)	Illegal	Legal	Legal	Recorded	Recorded
(v)	Illegal	Legal	Illegal	Not recorded	Not recorded
(vi)	Illegal	Legal	Illegal	Not recorded	Recorded
(vii)	Illegal	Illegal	Legal	Recorded	Recorded
(viii)	Illegal	Illegal	Illegal	Not recorded	Not recorded
(ix)	Illegal	Illegal	Illegal	Not recorded	Recorded

Source: adapted from Chrystanto and Iman (2003), modified by Chen, H.K.

CITES documents, by virtue of the fact that they accompany CITES-listed specimens in trade, acquire a value that can be bought through unscrupulous means. However, fraud is not the only factor that contributes towards trade discrepancies, as can be seen from **Table 3**. Factor No. 3.2 is of particular importance to CITES. With respect to mis-specification of species, it is important to distinguish two types of non-compliance. Firstly, there is the possibility of *bona fide* non-compliance, the result of ignorance of CITES requirements. Secondly, there is *mala fide* non-compliance, where the mis-specification is done deliberately to deceive (Lim *et al*., 2004).

The definitions of illegal logging and illegal timber, as described in this section, relate to a broad range of activities and so may not be easy to use in practice. The Indonesian and UK authorities, together with TNC, organised a stakeholder consultation workshop to develop a national (Indonesia-wide) working definition of legal timber, which would be useful in practice for monitoring and enforcement. This was carried out under a

Table 3
Factors leading to timber trade discrepancies

No.	Factor
1	**Primary normal factors**
1.1.	Change in fiscal year
1.2.	Method of product valuation
1.3.	Time lag between export and import
1.4.	Exchange rate fluctuation
1.5.	Declaration of destination (trans-shipment)
2	**Secondary normal factors**
2.1.	Conversion of product weights to volumes
2.2.	Volume conversion from standard to metric
2.3.	Differences in volume estimation method (e.g. log scaling method)
2.4.	Combined shipment of mixed products
2.5.	Different product classification
2.6.	Accounting method
3	**Abnormal factors**
3.1	Under-invoicing
3.2	Mis-specification of product type, characteristics, species or grade
3.3	Fraudulent trade data
3.4	Smuggling

Source: adapted from Chrystanto and Iman (2003).

Memorandum of Understanding between the Governments of Indonesia and the UK to combat illegal logging and timber trade.

The workshop came up with seven principles and various criteria for legality and summarized the draft definition, or 'Legality Standard' in this way:

> *Timber is legal when the validity of its origin, logging permit, logging system and procedures, administration, and transport documentation, processing and trade or transfer are verified as meeting all applicable legal requirements.* (See www.illegal-logging.info/papers/Z%20Introduction%20and%20Principles.htm.)

The criteria developed are unique to Indonesia and are not applicable directly to other countries unless adapted to meet local conditions and context. The seven principles and key criteria are:

Principle 1: **Land tenure and use rights and responsibilities**

Criterion 1.1: The concession licence is formally approved by the appropriate government authority.

Criterion 1.2: The company has prepared plans for the licensed area that meet all applicable government regulations.

Principle 2: **Physical and social environmental impact**

Criterion 2.1: The company has conducted a physical and social environmental assessment of its forest operations and/or timber processing facilities using the AMDAL Process according to *Governmental Regulation No. 27 of 1999*.

Criterion 2.2: The company is taking action to protect all endangered species as listed in the *Government Regulation 7* and *8/1999* whose range or habitat forms part of the licence area.

Principle 3: **Community relations and workers' rights**

Criterion 3.1: The company has identified all local communities whose livelihoods are affected by its activities, has documented their traditional rights and can demonstrate that it respects those rights.

Criterion 3.2: The company has entered into and is implementing agreements with all local communities that are affected by its activities that include clearly defined social benefits it undertakes to provide them.

Criterion 3.3: The company permits its workers to organize and voluntarily negotiate their employment conditions in accordance with International Labour Organization (ILO) conventions 87 and 98.

Criterion 3.4: The company complies with manpower regulations as specified in the TPTI, and other applicable manpower regulations regarding worker safety and health, benefits in kind, salaries, termination and contractors.

Criterion 3.5: The company implements a formal system for communication and dispute resolution with its employees and communities affected by its activities.

Principle 4: **Timber harvesting laws and regulations**

Criterion 4.1: Harvest plans have been approved by the appropriate government authority and have clearly defined boundaries that accurately represent harvesting and protected areas.

Criterion 4.2: Harvesting operations follow the legally specified silvicultural system or conditions for harvesting for land clearing as appropriate.

Principle 5: **Forest taxes**

Criterion 5.1: The company demonstrates that it has paid all concession fees and taxes in respect of its current licence and the timber extracted.

Principle 6: **Log identification, transfer and delivery**

Criterion 6.1: The company ensures that logs in transport are adequately physically identified.

Criterion 6.2: Log transport is properly documented.

Criterion 6.3: Contractors used in transportation of timber products demonstrate valid licences and permits.

Principle 7: **Timber processing, sales and shipping**

Criterion 7.1: Timber processing facilities and trading or export companies comply with the legal requirements for their activities.

Criterion 7.2: Shipping companies comply with government regulations for export of processed goods.

In the case of this Indonesian Legality Standard, illegality is measured against a set of principles and criteria which are to be verified in the field through an independent audit. The criteria are all based on specific aspects of the regulatory framework that directly relate to the principles and criteria. This is more likely to be workable because audits are carried out with reference to a definition rather than the whole range of laws and regulations that govern forestry matters in Indonesia. This method may or may not remove all ambiguity and conflict regarding various overlapping laws in a country, but it is a practical step towards increasing confidence of stakeholders and consumers.

Finally, in this context of definitions of illegal logging and timber trade, it is worth mentioning certification schemes. Certification usually vouches for economic, social and environmental sustainability. It uses a combination of legal and customary rights to meet legal requirements, and complies with a set of agreed standards for the three components of sustainability above. It is important that certification in the case of forest products can attest to a traceable and verifiable chain of custody from forest to consumer. Among the globally well-known certification schemes for forest products are the Forest Stewardship Council (FSC) (see www.fsc.org/fsc for details), Sustainable Forest Initiative (SFI) (see www.aboutsfi.org/core.asp for details), and Pan-European Forest Certification (PEFC) (see www.pefc.org/internet/html/about_pefc.htm for details).

CITES: AN OUTLINE

CITES is a convention that aims to control the international trade in certain critically endangered species and to regulate and monitor trade in other species that are believed to be vulnerable to over-exploitation. The genesis of the formulation of the Convention was the 1963 IUCN General Assembly which passed a resolution calling for ‘an international convention on regulations of export, transit and import of rare or threatened wildlife species or their skins and trophies’. Thus, CITES provided a framework to enable importing countries to be aware of export restrictions, thereby assisting exporting countries to enforce measures taken domestically. CITES operates by regulating international trade in specimens of taxa listed in its three Appendices, according to degree of threat.

The philosophy of CITES is clearly revealed in its preamble regarding the principle of international co-operation between States. Firstly, it recognizes that peoples and States are the best protectors of their own wild fauna and flora. CITES also notes that, for some species, international co-operation is essential for their protection against over-exploitation through international trade.

When a Party accedes to CITES, it must agree to follow the conditions set out in the 25 Articles of the text of the Convention. These state that Parties are obliged to implement CITES through the adoption of domestic legislation and regulations. They also set out the conditions for listing species, according to degree of threat, in the Appendices and for trade in specimens of species in each Appendix. No trade in specimens obtained in contravention of the laws of a State of export for the protection of fauna and flora is permitted by CITES, regardless of the Appendix listing.

The three Appendices of CITES are characterized as follows (see also **Table 4**).

Appendix I. Appendix I lists species which are currently highly endangered and could become extinct as a result of international trade if the trade is not prohibited. However, the relevant authorities can allow imports and exports if they are satisfied that the specimen is not to be used for primarily commercial purposes. Regulation of trade in specimens of species included in Appendix I is described under Article III in the text of the

Table 4
The requirements of CITES Appendices II and III

Cites requirements	Appendix II	Appendix III
Parties responsible for implementation	All Parties	All Parties
Authorities responsible for implementation	CITES MAs and SAs	CITES MAs
CITES documents required for export/ presentation on import	Export permit	Export permit (range States listing the species in Appendix III)
	Re-export certificate	Certificate of origin (other range States)
		Re-export certificate (all countries that re-export)
Standards for document issuance	MA of State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora SA of the State of export has advised that such export will not be detrimental to the survival of that species (Article IV)	MA of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora (Article V)
CITES annual reporting requirements	All imports, exports and re-exports	All imports and exports and re-exports
Means to secure a listing	Proposal submitted to the CoP, agreed by two-thirds' majority of Parties present and voting	Request by a range State sent to the CITES Secretariat. (*Resolution Conf. 9.25 (Rev.CoP13)* provides further guidance.)

Notes: MA = Management Authority; SA = Scientific Authority; CoP = meeting of the Conference of the Parties to CITES.

Source: adapted from Anon., 2001a.

Convention. Species in this Appendix represent only a small percentage of the species regulated under CITES. An import permit is required before an export permit can be issued. There is scrutiny by the SAs of both importing and exporting countries prior to the movement of specimens.

Appendix II. Appendix II includes species which, although not necessarily now threatened with extinction, may become so unless trade in specimens of such species is subject to strict regulation in order to avoid use incompatible with their survival. An export permit is required to authorize trade and, prior to this, Non-detriment Findings (NDFs) should have been conducted to ensure that trade is not detrimental to the survival of the species in the wild. An important tool used to verify that trade in Appendix-II species is sustainable is the CITES Review of Significant Trade. This Appendix also includes so-called 'look-alike species', i.e. species of which the specimens in trade look like those of species listed for conservation reasons.

Appendix III. Appendix III provides a mechanism where a Party can unilaterally list a species already regulated within its jurisdiction, to enlist the assistance of other Parties in the control of trade. For trade from the listing country, an export permit is issued. For trade from other range States, a CITES Certificate of Origin is required. Listing countries are encouraged to follow certain conditions set out in *Resolution Conf. 9.25 (Rev.)* (See **Annex 3**) prior to the listing.

CITES Parties review implementation of the Convention at the biennial meetings of the Conference of the Parties (CoPs). In between the CoPs, various committees are established by the Conference to facilitate and carry out the work of the Convention. The CITES Standing Committee provides guidance to the Secretariat on the implementation of the Convention, among other functions, between each CoP. In addition, there are regular meetings of the technical committees, the Plants Committee and the Animals Committee, both of which are directed to work on technical implementation issues of a primarily scientific nature, and the Nomenclature Committee, which is tasked with addressing the need for standardized nomenclatural references for animal and plant taxa. The Committees can form *ad-hoc* committees, such as the Timber Working Group, that are tasked with looking at specific issues within a time frame and reporting back to the parent committee.

The permitting system functions through the issuance of a CITES permit or certificate to accompany each shipment of CITES specimens in international trade. Only a competent authority within a State, called the Management Authority (MA) and which has been officially designated and made known to all Parties, can issue the permits or certificates. This permitting authority is supported by a Scientific Authority (SA) that provides advice on whether trade of specimens would be detrimental to the survival of the relevant species in the wild, among other things.

Parties can opt out of CITES requrirements for a species listed in the Appendices by taking out a 'reservation', as provided for by Article XVI of the Convention. The reservation must be for all parts and derivatives for species listed in Appendix II and for designated parts and derivatives for Appendix III listing. Parties must write to the CITES Depository Government (Switzerland) within 90 days of the entry into force of a listing in order to enter a reservation with regard to that listing. However, importing countries would still require that an equivalent permit or certificate be issued for trade in that species by the competent authority of the Party which had entered the reservation.

THE HISTORY OF LISTING TREE SPECIES IN CITES

There have only been a few high-value commercial timber species listed in any of the CITES Appendices (see **Annex 1** for tree species listed under CITES). The highest-profile tree species under CITES are Big-leaf Mahogany in the Americas; Afrormosia *Pericopsis elata* in Africa; and, most recently, ramin in Southeast Asia. For non-timber forest products, the highest profile species is probably Agarwood, in trade for its highly valuable product, renowned for its fragrance. From a historical perspective, the Convention has faced demanding times in gaining acceptance as an appropriate instrument that can control international trade in commercial timber species. Timber species have been listed in CITES since the Convention was ratified but those species are mostly restricted in range and not of significant commercial interest globally. By 1992, only 15 timber species were listed in the CITES Appendices despite the fact that CITES lists far more plant than animal species, not least because it includes all orchid species, of which there are over 20 000. Of the tree species listed up to 1992, many were included for reasons that are related to significant trade, but none was the subject of large-scale international trade. A few, such as Alerce, were considered as critically endangered and timber exploitation had contributed to the decline.

The eighth meeting of the Conference of the Parties to CITES (CoP8; Kyoto, 1992) saw a relative surge of proposals to list four species and three genera of trees. This was the first time a significant number of commercially important timber species were proposed for listing and they included: Afrormosia *Pericopsis elata*, Ramin *Gonystylus bancanus*, merbau *Intsia* spp. and the American Mahogany *Swietenia mahogani*. Discussion of these listing proposals by the Parties comprised scientific debate and much political manoeuvering which, in

Credits: (L to R) WWF-Canon/James Frankham; Dr A.K. Gupta/TRAFFIC India; WWF-Canon/ James Frankham; Reza Azmi/WildAsia.net

Alerce *Fitzroya cupressoides*, Agarwood *Aquilaria malaccensis*, Big-leaf Mahogany *Swietenia macrophylla* and ramin *Gonystylus* sp. (L to R), case-study species in this report.

the end, resulted in the listing of Afrormosia and the highly valuable, but commercially unobtainable, species of the American Mahogany. Ramin and merbau were proposed by Denmark and the Netherlands without consultation with or the support from range States in Asia. These were withdrawn after intense pressure and before scientific debate as to whether they fulfilled the Convention's listing criteria at the time. However, the proposal to list Brazilian Rosewood *Dalbergia nigra* in Appendix I went through without comment or controversy. This listing proposal was submitted by Brazil, a range country for the species.

At CoP9, in 1994, the basis for listing species in the Appendices received a boost when new listing criteria were adopted, providing an improved platform for objective evaluation of species for potential listing in CITES Appendices (CITES *Resolution Conf. 9.24 (Rev. CoP12)* relates). A proposal to list Big-leaf Mahogany was nonetheless rejected at CoP9. Following this, the Parties decided to direct the Standing Committee to establish a temporary working group, the Timber Working Group (TWG), chaired by the Chairman of the Plants Committee and comprising technical experts, to address the technical and practical problems associated with the implementation of tree listings. The TWG came up with a draft resolution that was subsequently adopted at CoP10 as *Resolution Conf. 10.13 Implementation of the Convention for timber species* (see **Annex 2**). The Resolution recommended a set of definitions for logs, sawn wood, and veneer sheets, for use in annotating the Appendices—annotations are used to designate which parts and derivatives apply to a listing. In general, those descriptions were to be based on the tariff classifications of the Harmonised System of the World Customs Organization, which describes and categorizes goods in trade, using an eight-digit code. Another recommendation of the TWG was to adapt some aspects of permitting (for example, the period of validity) to accord better with the nature of timber trade, showing the flexibility of CITES and its capability to adapt its procedures. CITES did not act alone in coming up with the recommendations but consulted widely and invited key international forestry organizations, like FAO and ITTO, to participate in the discussions.

CoP11 also established a temporary timber working group, the Big-leaf Mahogany Working Group (MWG), which was to report to CoP12. The results of the MWG's deliberations are expanded upon in the Big-leaf Mahogany case study.

At CoP12, the Governments of Nicaragua and Guatemala proposed that Big-leaf Mahogany be listed in Appendix II, a proposal that was adopted by the Parties after intense negotiations. These are expanded upon in the Big-leaf Mahogany case study. The species has also been listed by several countries in Appendix III (Costa Rica, in 1995; Bolivia and Brazil, in 1998; Mexico, in 1999; Peru, in 2001; and Colombia, in 2002).

CITES AND ITS CAPACITY TO COMBAT ILLEGAL LOGGING

Despite the perception of some people that CITES cannot be used, or is of limited use, in combating illegality in the forest products trade sector, it has powerful statements in its Articles designed to counter illegality. The role and/or potential role of CITES *vis à vis* illegal logging can be considered in terms of its requirements for:

- monitoring trade;
- sustainability of harvest;
- adherence to national laws of exporting Parties for the protection of fauna and flora; and
- enactment and enforcement of national laws for its implementation.

It may also be considered in terms of its

- provision of a practical solution to identification problems ('look-alikes') and
- its value as an agent for change and international co-operation.

The following sub-sections will review each of these aspects, citing illustrative examples from experiences with the case-study species.

Monitoring of trade

Monitoring of international timber trade is carried out through the analysis of international timber trade statistics which are compiled by various international organizations, such as FAO, UNECE, Eurostat and ITTO. Each gathers the statistics from national sources, where feasible, direct from Customs data, or from national statistical agencies or timber trade regulatory bodies and forestry departments. However, as shown in **Tables 2** and **3**, it is clear that the analysis of international timber trade data in many cases results in considerable discrepancies in the statistics between exporting and importing countries, despite the efforts by those agencies to ensure data consistency and accuracy (Anon., 2003a). There are a number of reasons for these discrepancies, as listed in **Table 3**.

CITES collects and analyses trade data independently of national and other bodies and therefore has a valuable role to offer as a means of comparison with statistics from these other sources. Annual reports, which are obligatory for Parties to submit, are the means of monitoring international trade in specimens listed under the Appendices (Anon., 2004b). The annual reports should follow the *Guidelines for the preparation and submission of CITES annual reports* in CITES *Notification No. 2002/022* of 9 April 2002, reinforced by *Resolution Conf. 11.17 (Rev. CoP13)*, on the obligation of Parties to submit annual reports on time. CITES Parties are encouraged to report actual trade in CITES-listed taxa, cross-referenced to the permits used, rather than permits issued. The database on wildlife trade in taxa listed under CITES (the CITES Trade Database), built from Parties' annual reports, is managed by the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC) on behalf of the CITES Secretariat.

Strengths of CITES in this role

CITES trade data have several advantages over timber statistics gathered by international agencies. CITES data are obtained, compiled and submitted by one agency, the MA, in the case of each Party. Thus, all data from one Party can be checked readily from one source. Moreover, CITES data include information on re-export, which is not readily available in other global timber statistics. The CITES Trade Database is a powerful analytical tool

that is accessible to all in conducting research and analysis. It allows comparison of data between trading countries and assessment of compliance with national and international trade controls, for example, trade quotas and trade bans. In this way, CITES data can be useful for determining if an investigation should be carried out, by highlighting the possibility of a problem. CITES seizure records may be especially useful in this regard. As an example of how CITES trade statistics can point up incidences which may indicate illegal timber trade and possibly illegal logging, when Bolivia placed its population of Big-leaf Mahogany in Appendix III, the decrease in exports of the species from Bolivia coincided with an increase in exports from Peru, until it, too, listed its population under Appendix III, in 2001. Ramin appeared to show a similar shift when Indonesia placed the species in Appendix III, in 2001. This is not to imply that Big-leaf Mahogany and ramin were smuggled across the border to Peru and Malaysia, respectively, and re-exported using CITES Certificates of Origin from those countries, although there were allegations from some NGOs that this happened.

The permitting system of CITES, *per se*, is a useful monitoring tool which can assist in combating illegal trade and, potentially, logging. It provides a paper trail to accompany each CITES shipment, often over and above the requirement of any national forestry regulations. In this way, it also supports transparency, an important element in good forest governance.

One of the most widely used tools to control export, and thereby aid enforcement of logging laws, amongst other laws, is the establishment of export quotas. Through monitoring trade, CITES can help with enforcement of these quotas.

There are some problems with the quality of CITES data (see below), but Parties adopted *Resolution Conf. 11.17 (Rev. CoP13)* to stress to all the Parties their obligation to submit annual reports on time. Failure to do so three years in a row can result in punitive measures taken by the Standing Committee. Few other international treaties have the means of taking such action against errant members; Reeve (2004) notes that, among environmental treaties, CITES has a notably effective and well-established compliance system.

Weaknesses of CITES in this role

In practice, CITES annual reports are often lacking in consistency and accuracy. CITES Parties may not follow the guidelines on reporting, may not submit their reports on time, may submit incomplete reports, or not submit a report at all. Hence, comprehensive trade statistics are usually only available two years or more in arrears. Some other inconsistencies and inaccuracies in annual reports are similar to those in timber trade statistics in general, i.e. caused by time lag between recording export and import of the same shipment, by using different units to record specimens, or by different product categorizations using the Harmonised System of classification. CITES data also have their own unique interpretation problems. Failure to enter or failure to enter correctly the codes used to identify the purpose of transaction, the source or origin of specimens in trade, and trade with non-CITES Parties, for instance, could lead to inconsistency. Recording of trade as registered on permits, as opposed to actual trade, in annual reports could also be the cause of discrepancies. However, total trade recorded at import should never be more that that recorded in export permits. A reason for trade data inconsistencies peculiar to Appendix-III species relates to the fact that only the listing country is required to issue an export permit. Other CITES range States are only required to issue a CITES Certificate of Origin. As the experience of Big-leaf Mahogany in Appendix III shows, range States are not always consistent in their issuance of certificates and importing countries are not always diligent in ensuring that these accompany shipments (Buitron and Mulliken, 1997). This problem also occurred for ramin when it was listed in Appendix III (Lim *et al., 2004*).

Even if CITES trade statistics were an accurate reflection of actual trade, they are not capable, *per se*, of pinpointing illegal timber trade, let alone illegal logging. For example, it might be argued that, since Alerce is in Appendix I of CITES and since Chile withdrew its reservation on the listing in 2005, any commercial international trade must be illegal. However, trade could be legal if it were in pre-Convention specimens, if it had a special dispensation from the exporting countries, or if seizures were legitimized through official procedures, for example, and, while the CITES Trade Database will record whether or not a specimen is pre-Convention, it does not record other reasons for exemptions from Appendix-I restrictions.

Despite its weaknesses, the CITES dataset is one of the most comprehensive on species in trade and regular analysis and comparison of trade data between countries gives valuable guidance on possible problem areas for further investigation. Useful as this is, it is not possible to use CITES data as anything more than a pointer to problem areas that may, on further investigation, be found to be caused by illegal logging

Sustainability of harvest

Unsustainble harvest is a prime category of illegal logging and the category against which CITES is perhaps best equipped to act. CITES requires that trade in any Appendix-I and Appendix-II species will not be detrimental to the survival of the species. Since there is virtually no trade in Appendix-I species, and that which exists is under conditions which should not, in any case, jeopardize the survival of the species, this condition of trade relates mostly to Appendix II in practice. The Article of the Convention text relating to regulation of trade in Appendix-II specimens states that:

> *The export of any specimen of a species included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when.....a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species…*
>
> and that whenever
>
> *....a Scientific Authority determines that the export of specimens of any such species should be limited in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I, the Scientific Authority shall advise the appropriate Management Authority of suitable measures to be taken to limit the grant of export permits for specimens of that species.*

In order to fulfil the condition that Appendix-II trade must not be harmful to the survival of species in that Appendix, NDFs, which constitute a CITES tool for evaluating whether species are suffering from over-exploitation owing to international trade, must be carried out prior to the granting of an export permit. They amount to a conclusion by an SA that the export of specimens of a particular species will not impact negatively on the survival of that species in the wild. In other words, export must be part of an off-take, the sum of which is sustainable. It should not result in unplanned range reduction, or long-term population decline, or otherwise change the population in a way that might be expected to lead to the species being eligible for inclusion in Appendix I (Anon., 2001b). In the case of an Appendix-I specimen, NDFs must be carried out prior to the granting of import permits also.

In order to support further its own requirement for sustainable trade, CITES has a mechanism—the Review of Significant Trade—for reviewing the status of Appendix-II species for which it is suspected that trade might be

deterimental, in cases where Parties are not able to able to fulfil their obligations in carrying out NDFs. Reviews of Significant Trade follow a procedure laid out in CITES *Resolution Conf. 12.8 (Rev. CoP13)* (see **Annex 4**) and include biological, trade and regulatory evaluation of a species. A Review of Significant Trade can lead to recommendations relating to regulation and enforcement of trade, including reference to sustainability of harvest. The recommendations of reviews, once endorsed by the CITES Plants or Animals Committee (as appropriate), are binding on the target Party to implement, and include the possibility of punitive action to ensure compliance. There is provision for consultation with the relevant Parties to ensure acceptance of the findings of the review. Hence this tool can be highly effective as a mechanism for evaluating implementation of CITES at several levels in-country, including at the level of national legislation and sustainability.

As well as evaluating, the Review of Significant Trade has the means to encourage compliance, through its mandate to authorize the Standing Committee to take 'appropriate action', which may include trade sanctions, against Parties which have not implemented its recommendations.

In the case of Agarwood, following presentation of the report on significant trade in the species to the 14th Plants Committee, the Committee approved a series of time-bound actions for various range States (see Agarwood case study). In many cases, the threat of a proposal to transfer a species to Appendix I could provide a sufficiently strong incentive for range countries to take additional measures to safeguard the species from over-exploitation.

Strengths of CITES in this role

The requirement by CITES that trade should be sustainable is supportive of efforts to combat illegal logging, including key forest governance tools such as chain-of-custody tracking. CITES permits represent a few links in a chain of custody, specifying as they do the permitee, the consignee, and the country of origin of the specimens. However, CITES permits do not certify this chain of custody in practice and it is the CITES requirement for sustainability that best complements use of the chain-of-custody tool by forest governance bodies. As a chain of custody can theoretically trace the movement of product from source (as in tree stump) to the consumer and, as CITES checks on sustainability (e.g. through NDFs) trace back to forest level, these two procedures could be mutually reinforcing. For example, in Malaysia, the forestry departments have to issue a removal pass for ramin, a form of transport permit for movement of logs from the forest to a processing factory or direct to export. The MA checks that these removal passes accompany shipments of ramin before issuing CITES export permits. Although this does not mean there is a procedure to ensure that processed ramin can be traced back to a legally approved forest concession with harvesting rights in Malaysia, this is nonetheless an instance of CITES working in harmony with efforts to combat illegal logging. Where the two systems are not in harmony, CITES membership could provide leverage for greater harmonization, for example by stimulating demand for a verifiable chain of custody for ramin in Malaysia—at present, there is no chain-of-custody system in place except for logs.

As another example of the CITES requirement for sustainability reinforcing and complementing national forest governance measures, the Government of Indonesia only approves one concessionaire to harvest and export ramin. This company has a certificate of sustainability issued by the Forest Stewardship Council (FSC) and *Lembaga Ekolabel Indonesia* (LEI), a local timber certification body. Both FSC and LEI have their own chain-of-custody certificates which were granted to this concessionaire. That means all the ramin harvested from this concession are monitored and tracked to the processing plant and onwards to the point of export when a CITES export permit is issued. A forest management plan captures the annual allowable cut as derived from a detailed inventory of the resource. An annual quota for ramin is determined from field data and fixed by the MA. The

chain of custody is verified by independent auditors. With all the elements of sustainability (and legality) traceable, the Government of Indonesia can safely issue a CITES export permit—again, an instance of mutual reinforcement of CITES and other efforts to act against illegal logging.

Weaknesses of CITES in this role

Use of NDFs, including actual research into levels of sustainable off-take, is not yet sufficiently institutionalized within CITES. Indonesia has used biological data to establish NDFs for ramin, but this is a unique situation for timber species listed under CITES. If range countries are not able to carry out NDFs for one timber species, the likelihood of their completing NDFs for any timber species is small, given that the operating conditions, forestry management and timber trade environment will be similar.

As part of the CITES requirement that MAs ensure NDFs, it is implicit that there is communication and co-operation between these Authorities and the relevant resource management agencies (if the two are separate agencies and have separate roles). This is not always the case. In the case of Chile, the MA and the forest service are one and the same—CONAF. In Sarawak the CITES MA and the resource management agency is one and the same—the Sarawak Forestry Corporation (SFC), but in Peninsular Malaysia, the agency issuing CITES documentation for ramin is the Malaysian Timber Industry Board (MTIB), whereas the ramin resource management agency is the Forestry Department. Bolivia has a similar separation of CITES and resource management roles. Having one agency in charge of CITES and resource management responsibilities is advantageous, unless there are issues of corruption (for example, a senior MA official in Chile was allegedly involved in corruption related to Alerce harvest and trade (Anon., 2005)), but this can also occur when different agencies are involved in the management and trade as well.

Overall, and despite the weaknesses noted, what these examples demonstrate is that CITES has the potential to be a 'green' certification scheme, that links sustainability and legality, of which CITES permits can be the proof.

Adherence to national laws for the protection of fauna and flora

CITES upholds national laws for the protection of fauna and flora, stating in its Convention text that export should only be authorized once the 'Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora'. Wherever a Party's laws for the protection of fauna and flora specify illegal logging, therefore, CITES officially acts in concert with these. In the case of Appendix III, Parties can only propose a listing if they already have domestic regulation in place to control exploitation. Again, if this regulation specifies illegal logging, theoretically CITES listing will serve only to strengthen a Party's own measures in this regard.

Enactment and enforcement of national laws for CITES implementation

Article VIII of the CITES Convention text requires all Parties to take appropriate measures to enforce its provisions. This includes ensuring that laws are in place to prohibit and penalize trade in specimens in violation of the Convention (*Resolution Conf. 8.4 National laws for implementation of the Convention* relates). In order to maximize fulfilment of this requirement on the part of the Parties, CITES has a specific project, the National Legislation Project, which divides CITES Parties into three categories depending on the adequacy of their national legislation to implement CITES. A large proportion of Parties were in the weakest category (3), although efforts by the CITES Secretariat, NGOs and others have steadily resulted in an upward progression of countries toward the optimal Category 1 status.

The best approach for ensuring that CITES-implementing regulations are continually updated within a Party is for it to enable the automatic inclusion of new CITES species under national legislation, so that national provisions for CITES come into immediate effect as soon as a species is listed. This type of system operates in China, where there is an explicit link between the national law for wildlife protection and CITES, meaning that China can implement new listings in a timely way (Clarke, 2004). A number of countries enact new legislation or adopt administrative procedures and policies reactively, following a listing of a species under the Appendices, however.

Since CITES requires Parties to have CITES-implementing regulation in place, and since such regulation would require that Appendix-I and Appendix-II specimens were not traded in a manner that would be detrimental to the survival of that species, CITES backs up its own requirements for sustainable harvest with the requirement that this be supported legally and administratively by Parties. In this way, logging which may be illegal on grounds of unsustainability will, in theory, be tackled by national regulation, as well as by CITES tools such as NDFs and Reviews of Significant Trade.

In the case of Alerce, Chile enacted new protective legislation, the *Supreme Decree No. 490*, following listing of the species in Appendix I, in 1975. Bhutan, Indonesia, the State of Sarawak in Malaysia, Singapore and Thailand enacted stronger legislation for Agarwood after its listing in Appendix II. For other Agarwood range States (Philippines, India, Peninsular Malaysia, Sabah in Malaysia, and Myanmar), the existing legislation already accorded protection to the species prior to the listing. For ramin, after the listing in Appendix III, Peninsular Malaysia had to adopt a policy to control CITES import and export permits for the species and to designate an authority to issue CITES permits and certificates, but Indonesia already had the legal framework in place to control ramin harvest and trade prior to the listing in Appendix III. Bolivia announced its listing of Big-leaf Mahogany in Appendix III in 1997 and adopted a new governance structure using a three-pronged approach of agencies backed up by law and including pre-harvest management plans (Anon., 2004). In the years immediately following the listing, discrepancies in the export and import data decreased, implying that information management was improving.

Despite the positive examples of enactment and enforcement of CITES-implementing laws cited above, it cannot be said that compliance with CITES is universally greater after a species is listed under CITES. For instance, the report of the Review of Significant Trade in Agarwood to the 14th meeting of the CITES Plants Committee stated that 'mechanisms to monitor populations and details of how regulations governing protection, harvest and trade were enforced' were largely unknown in all range States (Anon., 2003b). For many countries, the priority for CITES implementation has focused on animals and non-wood plants (orchids, ornamental plants, etc.) and hence CITES requirements are not usually incorporated into forestry legislation. These factors and limited understanding of CITES laws on the part of wildlife officers immediately serve to limit the power of the CITES requirement for its enforcement at national level. Where CITES-implementing regulations are adopted, the focus is often on the issuance of permits and certificates and not on the link to various forestry laws that often govern the harvest, management and trade of a timber species.

CITES as an agent for change and international co-operation

Sometimes, the fact that a species is newly listed in the CITES Appendices appears to galvanize action for better management. Examples of such action for each of the case-study species follow.

- In the case of Alerce, it was realized that permissable harvesting for dead wood could lead to intentional starting of forest fires, in order to increase the amount of (dead) Alerce that could be harvested. To guard against this eventuality, the Chilean authorities set up a fire prevention and patrol system.

- As illustrated in the case study on Agarwood, listing in Appendix II (1995), led to the institution of governance structures in many range countries, but India went beyond the requirements of CITES and instituted a ban on exports of its native Agarwood stocks.

- The listing of ramin in Appendix III directly influenced and prompted the main producer countries, Malaysia and Indonesia, together with the main re-exporter country, Singapore, to seek regional co-operation to combat illegal ramin trade through the formation of a Tri-national Task Force on Ramin Trade. This Task Force was established when the countries realised that some of the problems leading to illegal cross-border ramin trade between the three countries required active co-operation and participation between the timber regulatory bodies of the participating nations, the Customs and port authorities to close the gaps identified (Lim *et al.* 2004). The Task Force is also reporting to the CITES Standing Committee to ensure greater transparency of CITES implementation in those countries.

- Brazil and Peru made changes to their governance structures for Big-leaf Mahogany which also applied to forestry management and timber trade in general. While there is no definite correlation between this generally improved governance structure and changes as a result of CITES requirements, they both occurred within the same time frame and would appear to be linked. As a further example of proactive and co-operative action in the case of this species, the realization that the problems of illegal trade and various institutional weaknesses to implement CITES were beyond the means of a single country to tackle resulted in several international workshops to recommend solutions and implement efforts to resolve those deficiencies, for example a workshop on capacity building in 2004 supported by ITTO (Anon., 2002b and 2004c). A formal mechanism for co-operation was established under CITES through the formation of a Big-leaf Mahogany Working Group (MWG) (CITES *Decision 11.4* relates), comprising range countries, major importing countries and international NGOs and organizations. The first meeting of the MWG took place in October 2001 and submitted its report to CoP12 in 2002. CITES-listing of this valuable timber species has highlighted the issue of species conservation and SFM and is in line with ITTO's objective to support SFM through wide-ranging project and policy initiatives, such as funding of the workshop in 2004.

While there are other international initiatives highlighting forest conservation and management, CITES is one of the few international instruments that can bring attention to issues related to species management and conservation in timber trade.

Provision for listing 'look-alikes'

A significant obstacle towards enhancing the role of CITES in combating illegal logging is that of identification. If enforcement agents are not trained to identify CITES species, this is a problem in itself, but this problem is compounded in the case of tree species by the fact that domestic regulations relating to timber may operate on a generic platform, rather than at species level like CITES. For example, the Malaysian regulatory mechanism for timber trade is not set up to monitor to species level, as most trade is conducted using trade names for timber. Processing of timber beyond log form further complicates problems of identification.

One way in which CITES can offer some form of solution (although this depends very much on the case) is through its provision for listing 'look-alikes'. Article II of the Convention text states that Appendix II 'shall

include….species which must be subject to regulation in order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be brought under effective control'. In other words, it allows the listing in Appendix II of species which, although not threatened themselves, have specimens in trade which so closely resemble those of species listed in the Appendix for conservation reasons that they also need to be controlled in the interests of effective regulation. This CITES mechanism was used in the case of Agarwood; until January 2005, only one species of *Aquilaria* was CITES-listed, making its distinction from other species in the genus necessary, but difficult. In 2004, CITES Parties voted in favour of listing all agarwood-producing species (*Aquilaria* and *Gyrinops* species) in order to ease identification and assist enforcement.

Choice of Appendix

Some Parties find **Appendix I** a useful tool to complement domestic regulation for highly endangered species. If trade is proven to be seriously and drastically affecting the survival of a species, Appendix-I application could help to protect the species from the demands of international trade. In some cases, simply the threat of a proposal to list a species in Appendix I could provide a strong enough incentive for some range countries which harvest and trade in high volumes to take additional measures to safeguard the species from over-exploitation. Appendix I should be used with care, however, as it can remove possible incentives to encourage sustainable use and management, as well as impact on livelihoods. It can also be circumvented, for example by use of pre-Convention stocks and the entering of reservations. Appendix-I listing in the case of Alerce appears, from the significant reduction in exports of the species, to have reduced demand for it. It may be possible to achieve similar positive results with other timber species listed in this Appendix but, as cautioned above, Appendix I should be a last resort.

Listing a species in **Appendix II** could become a powerful agent for change in the regulatory framework of those range countries where the law relevant to logging and related trade is weak. This appears to have worked for some Agarwood range countries where the law was inadequate to control the trade. CITES then becomes an external agent for change, but unless such change is pursued as far as making the link between CITES provisions and national controls on harvesting, which could be as straightforward as undertaking an administrative procedure, use of CITES to curb illegal logging will not be maximized. NDFs, Reviews of Significant Trade and indeed any other CITES requirements do not, of themselves, provide this link.

A CITES Party listing a species in **Appendix III** has already demonstrated its commitment to conserving that species, as it must already have adequate regulatory provisions domestically for this purpose, including for effective enforcement of the listing. These could include legal provisions which are quite restrictive, as imposed by Indonesia for ramin, to curtail illegal logging. A listing in this Appendix can be a useful tool to increase awareness and enhance such regulatory controls and to seek assistance from other CITES Parties in their endeavours. The effect on other range States is still debatable. Appendix III is not associated with the same degree of rigour in monitoring and control as the other two Appendices, nor are range States required to vouchsafe sustainability. When Appendix III is perceived to have failed, however, Parties may attempt to transfer species to Appendix II. In this case, those Parties that have been improving their CITES Appendix-III implementation will be much further towards meeting the additional Appendix-II requirements.

CASE STUDY 1: ALERCE *FITZROYA CUPRESSOIDES* (APPENDIX I)

This case study on Alerce or Chilean Larch *Fitzroya cupressoides* charts the evolution of measures for a CITES Appendix-I timber species which has been subject to a split listing and a reservation, and for which the issues of pre-Convention stocks and personal effects have been relevant.

Credit: WWF-Canon/Ed Parker

Alerce trees after a deliberately set fire, Chile.

Alerce is an endemic evergreen conifer that is confined to the southern parts of South America, mostly in Chile and the adjacent parts of Argentina. It is the second-longest-living tree known, with a life span longer than 3600 years. In the Chilean Andes, Alerce is associated with large-scale land disturbance from volcanic activities or areas affected by fire. However, repeated human-set fires and heavy grazing are detrimental to the survival of the species.

Alerce has extensive cultural and historical value. In the past, it was heavily exploited for commercial use owing to the beauty and durability of the wood. It is extensively used for boards and shingles on buildings in southern Chile, barrels, furniture, musical instruments, pencils and handicrafts.

Alerce has been in Appendix I of CITES since 1975.

In Argentina, 85% of the habitat range of 20 625 ha (Kitzberger *et al*., 2000, cited in Premoli *et al*., 2000) is within protected areas. Kitzberger *et al*. believe there is little illegal exploitation of Alerce populations in Argentina as a result. However, this protection does not mean that the species is completely safe from illegal harvest. A WWF report presented to the 7th meeting of the Conference of the Parties to the Convention on Biological Diversity found that protected areas face a number of serious threats, including illegal logging, and that management effectiveness depends on a number of factors, not least budget and enforcement capacity (Anon., 2004d). The Alerce forest in Chile occupies 280 137 ha, representing over 96% of the habitat range, but only nine per cent, or 25 624 ha, are protected. Chilean Alerce is conserved in five national parks, two forest reserves and other protected areas, totalling 28 000 ha in 1983. Large areas of Alerce forests are privately owned in Chile. Its habitat has been extensively destroyed and degraded since the 16th century.

Despite its protected status and inclusion in national parks, in 1981, the IUCN/SSC Threatened Plants Committee reported that Alerce was seriously depleted in many parts of its range. Golte (1996, cited in Anon. 2006) suggested that heavy exploitation had prevented the regeneration and regrowth of the species in the coastal cordillera and high cordillera. The main threat to Alerce, as noted by a number of sources is commercial over-exploitation, clear-felling, burning and increasing settlement of land (Anon, 2000a, Permoli *et al.* 2000).

Following the listing in Appendix I, Alerce was declared a national monument of Chile in 1976 under *Supreme Decree No. 490* by the Ministry of Agriculture. The Decree covered all living Alerce in Chile. However, Article

2 of the Decree provides for the exploitation of Alerce if authorised by *the Corporación Nacional Forestal* (CONAF), which is also the CITES MA for Chile. The description of what may be exploited is defined in Article 5, which states that dead trees, whether standing or buried, can be harvested and commercially traded with approval by CONAF. In other words, the Decree prohibits the felling of living Alerce. According to Article 6 of the *Decree*, CONAF is expected to maintain a register of producers and record all information on the harvest. A detailed extraction plan that includes information on the area of work, volumes involved and road layout planned, must be submitted and field-checked by CONAF. The licensing system also includes conditions for the cutting and extraction established for that plan. The use of heavy equipment is prohibited and extraction from forest to access roads can only be by animals, normally oxen. A document for transportation is issued. Enforcement is carried out by the Ministry of Agriculture and the State police. Periodic controls and inspections are made on site to verify that all conditions are met and that complete records of volumes extracted and marketed are kept. Intentionally started forest fires are combatted through a system of fire detection that includes aerial patrols, land patrols and efficient communication networks.

Decree No. 490 allows trade of Alerce that has been harvested prior to 1973, which can be carried out under CITES as pre-Convention trade (involving specimens obtained prior to the application of CITES to the species). Chile cannot export specimens harvested after 1975, even if the national laws allow the harvest, unless the CITES Appendix-I listing is amended to allow this.

In 1983, Chile submitted a proposal to CoP4, to transfer its coastal population of dead Alerce to Appendix II (Anon, 1984). Chile estimated that in the coastal zone of over 85 000 ha, the gross total volume of dead Alerce was one million m^3, including trees that were buried. This proposal was adopted by the Parties. This effectively meant a split listing of Alerce, as other Alerce populations remained subject to Appendix-I requirements. Chile's intention was to allow trade in timber from existing burned forests. Chile presented evidence in the proposal's supporting statement of its management measures introduced to prevent harvest of live trees and of premeditated, illegal, use of fire to burn Alerce trees. Chile reported having detected only two fires from natural causes between 1975 and 1987, but did not indicate if the detection system managed to prevent fires from unnatural causes.

In 1987, Argentina proposed the transfer of Chile's coastal population back to Appendix I without consultation with Chile. When voting at the CoP went Argentina's way, Chile announced its intention to enter a reservation, which meant it could still trade in Alerce when it issued documentation equivalent to that required for Appendix-II exports. Argentina's proposal had the support of the CITES Plants Working Group (PWG). The PWG recognized that a mechanism was needed, through a quota or other system, for export only after pre-Convention stock had been exhausted, which Chile was against, preferring the establishment of a quota before the exhaustion of pre-Convention stock. Discussions at the 1987 CoP referred to huge quantities of pre-Convention timber stock in Chile; there has been no reported verification of the stock since that time.

CITES data show that Chile has been exporting Alerce since 1977. The units used until 1984 were inconsistent and did not conform to CITES requirements. This made it difficult to present accurate records that reflected the trade consistently. CONAF figures for 1981–1985 amounted to 14 678 m^3. CITES annual reports showed a volume of about 500 000 m^3 for 1985–2002, averaging 29 000 m^3 annually. The volumes vary tremendously, from 27.5 m^3 in 2001, to nearly 86 000 m^3 in 1989. From 1999 until 2003, the CITES Trade Database recorded that Chile exported a total of 595 m^3, plus four live specimens and 43 000 timber pieces, with only one shipment (of 4.74 m^3) of pre-Convention stock. Figures for the early years do not take into account pieces and quantities expressed in units other than cubic metres, nor live speciemens. Prior to 1999, cursory analysis of the data shows

a discrepancy between the volumes on permits issued by Chile and those recorded on arrival in importing countries; since 1999, the volumes traded have been small and would not appear to have been problematic.

CITES annual report data showed the seizure of 20 t of Alerce in 1989, with the country of origin unknown, but it was almost certainly Chile, given the lack of remaining stands or stocks of this timber in Argentina. A further four tonnes were seized by Switzerland in 1994. Seizures of several shipments of seeds and live plants were reported by other countries.

There is an additional complexity in the trade in Alerce. In Chile, active trade in Alerce handicrafts targets foreign tourists. Tourists could have exported the handicrafts legally as personal effects in accordance with CITES if coastal Alerce had remained in Appendix II, or if Chile's reservation was still in force (it was withdrawn in April 2005). However, when the reservation by Chile was rescinded, exports of Alerce handicrafts by tourists became illegal. Dead Alerce, if its harvest were properly monitored and controlled, could have provided a legal source of the wood to the local handicraft industry for onward legal export.

In conclusion, this case study illustrates that Appendix I can provide protection against demand from international trade and trade in Alerce declined significantly in the years following the re-transfer of this species to Appendix I. However, Parties need to understand that an aggrieved Party that does not agree with an Appendix-I listing can use various mechanisms to exclude their populations from Appendix-I constraints and that there are difficulties in distinguishing pre-Convention from other stock, unless there is an effective mechanism to monitor use of the former. Unfortunately, as is often the case with CITES-listed species, information regarding the impact of the CITES listing on domestic harvests and trade is unclear but, as the main market for Alerce is outside the main range State, it stands to reason that any restriction in this market would impact the scale of illegal harvest significantly. Of course, illegal harvesting could still be adding to the stockpile of Alerce if the government monitoring system is not as effective as it should be. Traders could be biding their time in the hope that international trade will be re-opened, but this likelihood is slim given the highly endangered status of this species.

CASE STUDY 2: AGARWOOD *AQUILARIA MALACCENSIS* (APPENDIX II)

This case study of Agarwood *Aquilaria malaccensis*, a species 'logged' for a non-timber product, showcases the role of national legislation improvements following listing in Appendix II and the subjects of 'look-alikes', NDFs and Reviews of Significant Trade.

Agarwood is produced by two Indo-Malesian genera: *Aquilaria*, that ranges from north-east India and Bangladesh eastwards to Indonesia and the island of New Guinea, and *Gyrinops*. The resinous deposits found in trees of these genera, resulting from an infection by a fungus, produce a resin-impregnated heartwood that is fragrant and is in high demand for incense, medicine and perfume across Asia, from the Middle East through to Japan and Taiwan. A major threat to the species is from unregulated and often illegal harvest and trade. A secondary threat is logging for timber that threatens the survival of this species through damage and destruction of the trees during logging of trees of other species.

Credit: WWF-Canon/Alain Compost

Cleaning agarwood in Kayan Mentarang National Park, Eastern Kalimantan, Indonesia.

India successfully proposed Agarwood for listing in CITES Appendix II at CoP9 and the listing came into force on 16 February 1995. The species is listed with annotation [#1] which means only some minor parts and derivatives are excluded from CITES control (see **Annex 1**). In preparing the proposal for listing, India concluded that the species was highly threatened in that country as a result of over-exploitation for commercial purposes and local extinctions. Even though the resin forms in the other species of *Aquilaria* and in *Gyrinops* spp., only this species (*A. malaccensis*) was listed in CITES. This presented difficulty in enforcement as it is not possible to differentiate between the resinous wood produced by different species, particularly as it is traded in the form of wood chips, wood pieces, powder/dust, oil and processed products, such as incense sticks. Article II 2(b) of the CITES Convention text on 'look-alikes' was not taken into account to ease the problems of enforcement at this point in the species's history within CITES.

There have been notable advancements in addressing issues of illegal harvest and trade in Agarwood in several countries since its Appendix-II listing in 1995. The listing appears to have galvanised enhanced protection for Agarwood. While the Philippines, India, Peninsular Malaysia, Sabah and Myanmar accorded protection to Agarwood prior to its CITES listing, Bhutan, Indonesia, Sarawak, Singapore and Thailand all enacted stronger legislation for the species afterwards. In Indonesia, it is an advantage that the CITES MA is the same agency which manages and controls the resource use—the Directorate General of Forest Protection and Nature Conservation (PHKA) within the Ministry of Forestry. This is also true for Sarawak (Sarawak Forestry Corporation), Bhutan (Department of Forestry Services) and Myanmar (Forestry Department). (Peninsular Malaysia's and Sabah's CITES permits have been issued by the timber trade agency, the Malaysian Timber Industry Board (MTIB), since 2001; those of the Philippines are issued by the Protected Areas and Wildlife Bureau; those of Thailand, by the Department of Agriculture; and those of Singapore, by the Agri-Food and Veterinary Authority, while the Indian MA is the Director General of Forests under the Ministry of Environment.) Despite examples of improved protection for Agarwood since 1995, 'mechanisms to monitor populations and

details of how regulations governing protection, harvest and trade were enforced' were still largely unavailable from range States in 2003 (Anon., 2003b).

Tables 5 and **6** show the import and export volumes of Agarwood from the year 1995 to 2001. CITES data show that over 95% of agarwood from *Aquilaria malaccensis* in trade is sourced from Indonesia and Malaysia, with Singapore playing a major entrepôt role, re-exporting product sourced from its two neighbouring countries. Singapore imported 45% of all Agarwood exported between 1995 and 2001, and 91% of all re-exports in the same period. The final destinations are Taiwan, the United Arab Emirates, Saudi Arabia and Japan. There have been no reports of illegal international trade or reports of illegal or unreported harvesting in range States, but Singapore re-exported much more Agarwood than it imported, according to CITES data (Anon, 2003).

Table 5

Agarwood (*Aquilaria malaccensis*) imports and exports (kg) from range States, as reported in CITES annual reports compiled by UNEP-WCMC from 1995 to 2001 (excluding re-exports)

Range State	Year	Imports reported from range States	Exports reported by range States
Indonesia	1995	500	323 577
	1996	214 922	293 593
	1997	1783	305 483
	1998	247	147 212
	1999	0	76 401
	2000	0	81 377
	2001	4772	74 826
Malaysia	1995	116 411	90 478
	1996	157 713	163 107
	1997	90 830	87 230
	1998	60 050	630 851
	1999	35 270	528 190
	2000	65 500	887 600
	2001	21 300	32 900
Thailand	1997	216	244
India	1999	0	5
	2000	5600	3
	2001	0	1

Source: CITES annual report compiled by UNEP-WCMC (extracted from Anon, 2003).

Agarwood continued to receive significant international attention following its listing in 1995, as trade volumes five years afterwards remained high and there continued to be problems with the harvest and trade as highlighted in Barden *et al*. (2000). Agarwood was identified by the Plants Committee of CITES in the late 1990s as a candidate for Review of Significant Trade for the period 1998–2000. The resulting recommendations for various range States (Anon., 2003b) highlighted areas for investigation relating to illegal harvest and illegal trade and are reproduced below.

> *The CITES Scientific Authority of **Malaysia** should convene, in conjunction with the Malaysian Timber Industries Board (MTIB—the CITES Management Authority for tree species in Peninsular Malaysia), the Sarawak Forestry Department (the CITES Management Authority for Sarawak), the Forest Research*

Table 6

Trade in Agarwood (*Aquilaria malaccensis*) (kg) by country of import

		Chips, powder and timber		Oil	
Country	Year	Imports reported by country of import	Exports/re-exports to country of import reported by country of export/re-export	Imports reported by country of import	Exports/re-exports to country of import reported by country of export/re-export
United Arab Emirates	1995		51 256		2
	1996		25 388		
	1997		52 429		
	1998		82 668		
	1999		26 042		
	2000		21 305		
	2001		10 303		
Hong Kong	1995	25 855	40 275		
	1996	47 256	57 357		
	1997	52 684	52 770		
	1998	55 093	55 487		
	1999	63 354	66 576		
	2000	27 769	27 770		
	2001	15 787	22 973		
India	1995	38	14 454		
	1996		15 184		
	1997		19 364		
	1998		36 867		
	1999	6699	45 150		
	2000	24 399	37 018		
	2001	42 833	69 847		
Japan	1995	6629	11 159		
	1996	10 829	22 302		
	1997	10 134	20 512		
	1998	8126	18 082		
	1999		21 119		
	2000		21 175		
	2001		20 202		
Saudi Arabia	1995		39 885		
	1996		13 307		
	1997		75 392		
	1998		73 168		
	1999		21 616		
	2000		15 674		
Singapore	1995	116 581	345 677		
	1996	375 882	417 130		
	1997	91 046	350 158		
	1998	33 550	173 733		
	1999	5000	79 952		
	2000	70 950	127 899		
	2001	21 300	90 265		
Taiwan	1995		211 308		1
	1996		69 756		
	1997		121 302		
	1998		38 798		
	1999		13 951		
	2000		6139		
	2001		45 077		

Source: CITES annual report compiled by UNEP-WCMC (extracted from Anon, 2003).

Institute of Malaysia (FRIM) and associated technical experts, a working group to develop robust Non-Detriment Finding methodology to be used to monitor agarwood harvest and trade.

Under the laws of both Peninsular Malaysia and Sarawak, legal harvest of and trade in agarwood is regulated by a permit system, prior to the application and issuance of a CITES permit for export. A list of permits issued on an annual basis from 1998–2002, cross-referenced to harvesting locations, would assist greatly to clarify i) how much of the agarwood harvest and trade is legal from these two Malaysian jurisdictions; ii) how harvest and trade might be being managed, or could be better managed; and iii) to cross-check the trade statistics.

***India** should clarify the regulatory and management framework currently in operation that distinguishes imported stock from any production from native populations. In addition, there should be some consideration given to implementing a Non-Detriment Finding process for 'formulations' derived from* A. malaccensis*. The current level of* A. malaccensis *plantation development in northeast India, particularly the State of Assam suggests that if plantation agarwood is to become an important part of the State's forest management strategy, trade regulations relative to India's national legislation may need to be re-examined to ensure that incentives for good management are in place.*

*Although operating on an increasingly precautionary basis in setting annual quotas, **Indonesia** is asked to clarify the methodology currently being used for the Non Detriment Finding assessments, with particular attention being paid to the calculation of the real amount of* A. malaccensis *(within the quota including four other agarwood-producing species) being harvested and traded. Indonesian authorities, including the representative to the CITES Plants Committee have agreed that developing robust NDF methodology is a priority, and have agreed to work with the Indonesian agarwood trading association to achieve this. However, this consultative process should be moved forward into the technical phase as a matter of priority.*

Owing to the enforcement problems caused by listing only one species of agarwood-producing tree, CITES Parties voted in favour of listing all *Aquilaria* spp. and *Gyrinops* spp. in Appendix II at CoP13, in Bangkok in 2004. This should eliminate possible enforcement problems associated with mis-identification of species at points of export, re-export and import.

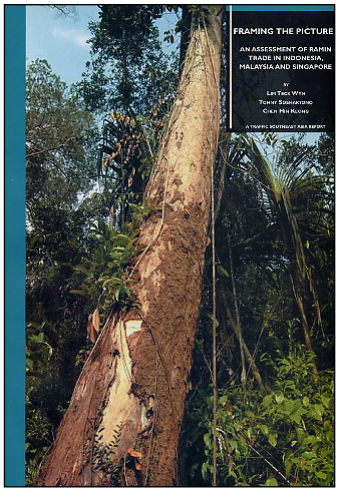
In conclusion, CITES became an important external agent for greater enforcement action for Agarwood, both through listings and a Review of Significant Trade.

CASE STUDY 3: RAMIN *GONYSTYLUS* SPP. (APPENDIX II)

These case study species have been in CITES Appendix III and later Appendix II, the subject of a CITES reservation, NDFs, strict domestic regulations and pre-Convention stockpiles. The level of international co-operation in efforts to conerve ramin has set a worthy precedent for inter-country initiatives of this kind.

Ramin *Gonystylus* spp. consists of about 30 species (and one variety) of tall trees and some shrubs. The genus is distributed throughout South-east Asia, including the Nicobar, Solomon and Fiji Islands. Ramin is a lightweight to moderately heavy hardwood, of which the most valuable species is *G. bancanus*. Ramin is a highly valuable timber species that can fetch more than USD500 per m^3 and the value of international trade in the species exceeds USD100 million each year.

The following summary of ramin's history in CITES is based on information in *Framing the Picture: An Assessment of Ramin Trade in Indonesia, Malaysia and Singapore*, a study carried out by TRAFFIC Southeast Asia (Lim, *et al*., 2004).



Credit (cover photo): FRIM-UNDP/GEF Peat Swamp Forest Project

***Framing the Picture*— TRAFFIC Southeast Asia's report on ramin trade**

Ramin was initially listed in CITES Appendix III by Indonesia in 2001, following concerns over illegal logging within Indonesia's protected areas. Prior to the listing, Indonesia undertook the adoption of several controls to curb illegal harvest and trade as recommended under CITES *Resolution Conf. 9.25 (Rev.)*. The Minister of Forestry issued two ministerial decrees, the first to put in place a complete ban on the harvesting and trade in ramin, the second to provide for limited harvesting of ramin under strict conditions. Indonesia included its populations of *Gonystylus* spp. in CITES Appendix III with effect from August 2001. It also established a zero export quota for the species, effective from 12 April 2001 (CITES *Notification No. 2001/026*). However, on 11 June 2001, Indonesia amended this announcement by stating that it would allow trade in registered stockpiles of 21 034 m^3 ramin accumulated prior to 12 April 2001 (Ministry of Forestry decree *No. 168/Kpts-IV/2001* relates). Furthermore, Indonesia decided to allow trade in ramin timber and products originating from the PT Diamond Raya Timber concession in Riau Province, Sumatra (CITES *Notifications Nos 2001/040* and *2005/007* relate). Diamond Raya holds a certificate of sustainable forest management from *Lembaga Ekolabel Indonesia* (LEI), the national certification scheme, and a certificate of good forest management accredited by FSC. It also holds a chain-of-custody certificate from FSC. CITES notifications (see **Table 7**) accordingly distinguished three sources of ramin timber from Indonesia: i) ramin originating in pre-Convention registered stockpiles; ii) ramin originating in the PT Diamond Raya Timber concession; and iii) ramin originating from other sources (which were not permitted to be exported). For ramin from Diamond Raya, PHKA requires the Provincial Forestry Authority to issue a letter of endorsement and a certificate of forest product legality (*Surat Keterangan Sahnya Hasil Hutan* or SKSHH), issued in accordance with the Annual Allowable Cut (AAC) quota that is set based on NDFs carried out for the Diamond Raya concession, before it will issue a CITES export permit.

Another Indonesian decree (*No. 1613/Kpts-II/2001* of 30 October 2001) detailed the procedures for exporting ramin (including the need for exporters of ramin to obtain a CITES export permit from PHKA). This decree specified a total ban on the export of ramin logs, sawn timber and veneer sheets, even if they originated from Diamond Raya or registered stockpiles. However, mouldings, dowels and blinds originating from registered

Table 7
Indonesian decrees and corresponding CITES notifications

Source	Date	Reference number
Indonesian decree	11 April 2001	No. 127/Kpts-V/2001
CITES notification	18 May 2001	No. 2001/026
Indonesian decree	11 June 2001	No. 168/Kpts-IV/2001
CITES notification	9 July 2001	No. 2001/040
CITES notification	10 August 2001	No. 2001/053
CITES notification	1 March 2005	No. 2005/007

Source: CITES notifications, interpreted by TRAFFIC Southeast Asia.

stockpiles can be given CITES export permits. Section I 3(2)c of the decree gives provision for the export of other products containing ramin to be exported without CITES permits, once the CITES Secretariat has notified other Parties via a notification. Such a notification has yet to be made.

In June 2002, Malaysia supported Indonesia's Appendix-III listing by issuing a ban on ramin log imports from Indonesia. Prior to the Appendix-II listing, there were a number of seizures of ramin found illegally entering Malaysia as well as other countries, for example the USA and the UK, without valid CITES permits from Indonesia. These demonstrated the effects of CITES controls in action but, on the negative side, showed that illegal trade was in flow. There were alleged reports that Malaysian companies imported ramin illegally and laundered the ramin using Malaysian CITES certificates. An additional difficulty arose as Malaysia had taken out a reservation (in August 2001) on the Appendix-III listing of ramin parts and derivatives, except for logs and sawn timber (CITES *Notification No. 2001/068* relates). Moreover, in general, Appendix-III listings are less widely understood and implemented by CITES Parties than Appendix-II listings. When Malaysia's log import ban was found to have some weaknesses in implementation, the Government of Malaysia announced an import ban on Large Square and Scantling (LSS) greater than 60 ins^2 (375 cm^2) from Indonesia, in June 2003. This provided Malaysian authorities with some basis for enforcement action at the borders; one of the methods for smuggling ramin was to mix the shipment with other timber species.

In 2004, the principal exporting and transit countries, Indonesia, Malaysia and Singapore, established a Tri-national Task Force on Ramin Trade. This international Task Force was created in response to NGO pressure to enhance cross-border trade controls.

At CoP13, ramin was included in Appendix II. The listing is annotated to the effect that all parts and derivatives are included in the listing except seeds, spores and pollen; seedling cultures obtained in vitro; and cut flowers of artificially propagated plants. The proposal to list the species in Appendix II was put forward by Indonesia precisely because it was concerned about declining populations of ramin, continued illegal logging in protected areas, and the persistence of illegally logged ramin on the world market. In proposing the Appendix-II listing, Indonesia hoped for enhanced international co-operation in addressing the problem of illegally logged ramin and indeed, in June 2005, Malaysia withdrew its reservation on the listing of ramin in the CITES Appendices.

The ramin case offers an indication of how stricter national measures and reciprocal policy arrangements worked with an Appendix-III listing as a forerunner to a regional task force and the current Appendix-II listing, proposed explicitly as a means of combating illegal logging.

CASE STUDY 4: BIG-LEAF MAHOGANY *SWIETENIA MACROPHYLLA* (APPENDIX II)

Like ramin, Big-leaf Mahogany *Swietenia macrophylla* came under CITES purview through its listing in Appendix III, which was a precursor to its listing Appendix II. The species has been the subject of NDFs and a notable degree of international co-operation.

Big-leaf Mahogany is distributed from southern Mexico throughout Central and South America to Bolivia and Brazil, including a large portion of the Amazon basin. It is one of the hardest of neotropical woods and is highly valuable in the international markets.

There were proposals to list Big-leaf Mahogany in Appendix II in 1992 and 1994 which were defeated. These defeats prompted Costa Rica to list its population of Big-leaf Mahogany in Appendix III in 1995. It was listed with annotation[#5], meaning that only logs, sawn timber and veneer sheets were covered by the listing and therefore needed CITES export permits for trade from Costa Rica and CITES Certificates of Origin for trade from all other range countries. All other products that had undergone further processing, such as plywood, mouldings and furniture, were exempt from the listing controls. It should be noted that Costa Rica's legal export of Big-leaf Mahogany was very small, below 100m^3 from 1996 to 2002, and was considered as relatively insignificant. Other range countries followed the example of Costa Rica, and Bolivia and Brazil (both in 1998), Mexico (1999), Peru (2001) and Colombia (2002) listed the species in Appendix III with the same annotation (Anon., 2002b). **Tables 8** and **9** show data for Big-leaf Mahogany in trade, 1996–2002, and show Bolivia, Brazil and Peru as the main exporting range States.

Credit: WWF-Canon/André Bärtschi

Logging mahogany in lowland rainforest along the Rio Las Piedras, near the Alto Purus Reserved Zone, Madre de Dios, Peru

Table 8

Annual volumes of Big-leaf Mahogany *Swietenia macrophylla* timber exported (m^3), by the main countries of export, for the years 1996–2002

Country of export	1996	1997	1998	1999	2000	2001	2002	Mean
Brazil	101 473	94 744	43 438	54 961	39 857	40 413	41 183	59 438
Peru	4448	10 893	20 720	51 487	33 048	41 400	50 429	30 346
Bolivia	25 989	27 963	20 159	8520	10 549	7613	4596	15 056
Nicaragua	17 106	19 029	5773	5165	3863	5991	7278	9172
Guatemala	2100	1687	1098	406	2716	3135	2483	1946
Belize	1931	233	125	2326	2030	709	1173	1218
Mexico	2266	497	271	168	-	2473	589	895
Honduras	-	885	880	1324	666	556	-	616

Note: the quantities include mahogany reported as sawnwood and timber, data based on trade records provided by countries of both export and import with re-export data excluded.

Source: CITES trade database maintained by UNEP-WCMC, as reported in Anon, 2004.

Table 9

Annual volumes of Big-leaf Mahogany *Swietenia macrophylla* imported (m^3), by the main countries of import, for the years 1996–2002

Country of export	1996	1997	1998	1999	2000	2001	2002	Mean
USA	54 455	73 846	74 485	89 161	70 601	85 615	68 632	73 828
Dominican Republic	10 214	10 643	5163	17 771	14 165	9911	16 610	12 068
UK	16 832	1739	4167	5664	2741	2922	1136	5029
Canada	10	28	102	278	344	-	21 224	3141
Spain	791	825	2392	2147	775	766	710	1201
Netherlands	880	537	1685	2797	1139	601	730	1196
Mexico	778	107	201	140	553	2461	475	674
Ireland	2303	1146	310	145	84	17	18	575
Denmark	1558	557	68	412	299	611	273	540
Germany	-	254	857	522	289	500	347	396

Note: the quantities include mahogany reported as sawnwood and timber, data based on trade records provided by countries of both export and import with re-export data excluded.

Source: CITES trade database maintained by UNEP-WCMC, as reported in Anon., 2004.

Prior to **Bolivia**'s listing, serious concerns were expressed owing to over-exploitation, illegal logging and forestry legislation in the country, but there have been significant efforts by the government, with improvements in trade monitoring and information management (Anon., 2002b). In 1996, Bolivia adopted the *Forestry Law 1700*, which is implemented via *Supreme Decree #*24453. The Decree established a framework for sustainable and efficient use of forest resources and the protection of forests. CITES permits are issued by the Vice Ministry of the Environment, Natural Resources and Forestry Development (VMARNDFs) as the CITES MA. CITES is co-ordinated by the General Biodiversity Department, working with the National Forestry Superintendence (SIF), established in 1997 to implement the *Forestry Law 1700*; the Single Counter System for Exports (SIVEX) under the Secretary of Industry and Commerce, responsible for supervising implementation of trade and export regulations; and Customs and forestry police. This three-pronged approach of agencies backed up by law appears to have resulted in improved implementation of CITES. Since 1998, SIF has authorised mahogany to be logged, mainly on the basis of a management plan, and production 1998–2003 varied between a low of 5213 m^3, in 2000, to 12 152m^3, in 1999, with a three-year average between 2001 and 2003 of around 10 000m^3 (Anon., 2004). The CITES MA has stated that the creation and institutionalising of CITES controls has helped reduce illegal forestry activities. Also, as a possible indication of the improvements made, there was invariably a decrease in discrepancies between export data and corresponding import data from other countries, 1997–1999.

In **Brazil**, the government has adopted a variety of legislative mechanisms to control Big-leaf Mahogany harvest and trade since 1996 (Anon., 2002b). *Government Decree 1963* suspended all new authorizations and concessions for commercial exploitation of the species and these suspensions were subsequently extended twice, to 2000. Big-leaf Mahogany exports can only come from forests with sustainable forestry management plans approved by the Institute for the Environment and Renewable Natural Resources (*Instituto Brazileiro do Meio Ambiente e dos Recursos Naturais Renovaveis*, IBAMA), the CITES MA of Brazil, and with established biannual export quotas. However, for unexplained reasons, the export quotas were exceeded in 1998 and 1999 so, although the quota was considered significantly to have increased export controls over the trade of this species, NGOs continued to highlight widespread allegations of illegal activity in addition to official seizure reports (Anon., 2004a).

Peru increased its exports of mahogany tremendously, from 19 078m^3 in 1996, to over 51 000m^3 in 2000, but these decreased to 42 800m^3 in 2003 (Anon., 2002b and 2004). The increase coincided with the listing of Big-leaf Mahogany in Appendix III by Bolivia, and later by Brazil, suggesting illegal activities in Peru (B. Ortiz, TRAFFIC South America, *in litt.* 22 January 2005). The legal framework regulating harvest and trade of mahogany in Peru was modified in the *Forestry and Wild Fauna Law 27308* in July 2000 and the related *Forest and Wild Fauna Law Regulation* on 9 March 2001. The law prohibits the export of unprocessed mahogany products. The move towards listing in Appendix III (2001) helped address problems of data compilation and analysis which had dogged record-keeping by instituting a new format for data handling, effective from the date of the listing. In addition, a number of documents were required to be presented during permit application. The most important from the point of view of illegal logging is the receipt for payment of forestry tax and logging rights, as well as the Forest Transport Guide which accompanies a timber shipment. The Peruvian MA is the *Instituto Nacional de Recursos Naturales* (INRENA).

Big-leaf Mahogany was included in CITES Appendix II with effect from 15 November 2003 with annotation [#6], which includes plywood, in addition to logs, sawn timber and veneer. There has not been much time since then to show significant progress in implementation but all the countries mentioned above have taken steps to strengthen their degree of CITES control further. One significant milestone has been the organization of a Big-leaf Mahogany workshop in May 2004, in Peru, sponsored by ITTO, to encourage and inform practical action with respect to the formulation of NDFs for mahogany exports, identify opportunities for national inter-agency co-operation and regional co-operation, identify international agency needs, discuss common approaches to monitoring, develop potential private-sector actions and facilitate the sharing of information (Anon., 2004). At the workshop, it was reported that Peru had made great strides in addressing the problems of CITES implementation for mahogany although a number of problems remained to be addressed. One significant problem was the lack of effective mechanism to assess both the compliance with commitments by concession holders and the development of control and supervisory bodies (Anon., 2004). There are limited financial resources to carry out monitoring and control activities, especially in the field, and in verifying the yearly operational plans. In a bid to reverse the conditions that led to the listing of mahogany in Appendix II, Peru has prepared a national strategy that includes both CITES authorities and key forest-sector stakeholders. Another notable initiative since the Appendix-II listing is Brazil's implementation of a system for tracking permits from request to issuance. This is complemented by official communication of permit issuance to the CITES MA in the importing country. Further, technicians are being trained to identify mahogany at the point of exit and support manuals are being produced (Anon., 2004; Anon., in press).

At the 15th Plants Committee meeting in Geneva, in May 2005, Big-leaf Mahogany continued to generate international interest and pressure to address a number of implementation issues faced by range countries. CITES continued to monitor the situation, and the concerns over enforcement in the three main range countries, Peru, Brazil and Bolivia, prompted the Parties at CoP13 (Bangkok, October 2004) to re-establish the CITES Big-leaf Mahogany Working Group (MWG). The Group was charged with promoting:

- preparation and adoption of mahogany management plans at national and sub-regional level;
- forest inventories and programmes to determine and monitor the distribution, population size and conservation status of mahogany;
- capacity-building programmes in monitoring and management relating to CITES procedures and documents; and
- the submission by the Parties of reports on progress in the implementation of CITES *Decision 13.58* regarding these matters to the 16th meeting of the Plants Committee (3–8 July 2006).

In conclusion, the issue of sustainability of Big-leaf Mahogany harvest and trade has been in question since at least 1992, when the species was first proposed for listing in CITES. Appendix-III listing had some impact on trade, but Parties were not consistent in keeping records. International and domestic public pressure in a number of range countries, coupled with greater understanding of, and information on, the over-exploitation of Big-leaf Mahogany encouraged some Parties to begin strengthening their legal framework to control its harvest and trade, and forestry in general. These controls gained momentum when the main mahogany-exporting range States, Bolivia, Brazil and Peru, listed their own populations of Big-leaf Mahogany in Appendix III. Despite the progress made, illegal trade and illegal logging continued to be highlighted by the NGOs. This pressure, coupled with the greater awareness of the need to co-operate and work together to combat illegal trade by range countries, finally resulted in the Parties voting to transfer the species to Appendix II in November 2003. This has managed to galvanize further steps to control the trade in Big-leaf Mahogany and to provide the legal framework and controls to ensure that harvest and trade is not detrimental to the survival of the species. It has also meant additional funding support for sustainable management of the species and its trade. The continued oversight of the CITES MWG will help to maintain pressure on range countries to improve implementation.

CONCLUSIONS

CITES offers opportunities for increasing a Party's capacity to combat illegal logging by invoking two of its cornerstone features—monitoring and insistence on sustainable harvest—but, equally, through requiring that specimens are not obtained in contravention of the laws for the protection of fauna and flora in exporting States. Bolstering all these key requirements, is the further requirement that CITES Parties should have a regulatory system in place to enforce them. To some extent, the aspects and mechanisms of CITES that can assist in controlling levels timber trade and, therefore, sometimes logging depend on the Appendix in use, although trade in specimens from all three Appendices must be in accordance with national laws for fauna and flora of the exporting State and monitoring is required by CITES for all its listed species. This is essentially as far as CITES can go towards combating illegal logging, since it is otherwise only as effective as the relevant national laws of its Parties. It is obviously also constrained by the fact that it can only have any impact on species that are listed in its Appendices and there are many unlisted tree species in trade. The fact that CITES operates according to a species-based framework while national forestry and timber laws are often focussed on generic timber types further diminishes the capacity of CITES to work in concert with such laws. Moreover, the opportunities that do exist for capitalizing on what CITES can do to combat illegal logging are invariably missed. One such opportunity, and a very important one, is that of linking requirements under relevant national forestry laws, especially those that govern extraction of timber, to CITES requirements. The fact that this is not done at present is highlighted by the disconnection between CITES MAs and the agencies that manage forests in many States. As the case studies illustrate, CITES licensing and extraction controls are not well integrated. In instances in the case-study countries, the political will to make the necessary changes appears to be there, but it is inconsistently applied and hampered by constraints such as lack of capacity, manpower and knowledge, coupled with the possibility of corruption and bribery.

In conclusion, the capacity for CITES to combat illegal logging in particular, and to manage native species for conservation and economic benefit in general, is not used to its full potential. It remains to be seen if timber species, producers of a highly valuable commodity, can facilitate a change in mindset, so that governments take greater advantage of what CITES can offer in terms of forest management. CITES is just about the first 'green' certification scheme in the world, but has had a number of problems in implementation, to the extent that others are now inventing new mechanisms and instruments to combat illegal logging and trade, such as forest certification schemes, ITTO sustainable forest management principles, etc. CITES can yet fulfil its role if all Parties work together and do not consider CITES merely as a trade ban, or a Convention only about trade.

RECOMMENDATIONS

There are **a number of recommendations that could be adopted** to link CITES with measures to control illegal logging at national level, as follows:

Monitoring

- All countries which export CITES-listed tree species should develop a means of tracking the chain of custody for products from these species, with a view to showing up illegal practice. This should be a responsibility of MAs and should be one of the checks on the checklist mentioned below. Issuance of a CITES export permit should be contingent upon satisfaction that the chain-of-custody requirements are in order.

- CITES MAs and Customs in importing countries could request additional documentation to accompany CITES shipments as proof of legal harvesting. Examples of such documentation could include royalty collection receipts, transportation permits, etc. As this will require stricter measures from importing countries, consideration should be given to the question of sovereignty and trust.

- CITES Parties, in particular SAs from countries that have proposed a listing, should conduct regular analysis of data in the CITES Trade Database in order to scan for indications of illegal trade, which may be based on illegal logging.

- The CITES Secretariat should carry out periodic review of global trade, with results feeding into the CITES Plants Committee, since a comparative analysis of CITES trade data may be able to highlight areas where illegal harvesting may have occurred, for further investigation.

- Parties with CITES-listed timber exports should take steps to secure the involvement of forestry departments in the CITES implementation process—through formal inter-agency working agreements and decision-making structures or by formally designating such departments as the CITES MA for timber species.

- Co-ordination between various agencies that manage timber resources and the MA in a given Party, whether those functions are within the same department or not, as well as co-ordination with the SA, should be given a high priority. Co-ordination is crucial to the successful implementation of CITES. The ability to integrate the regulatory provisions at all stages of management and trade prior to the issuance of a CITES permit and certificate is a very strong signal of sustainability and legality. This co-ordination should extend to the responsibility of carrying out enforcement and the related challenges of identification of species, identification of CITES documentation fraud, taking preventive measures against laundering and smuggling, etc.

Sustainability

- Measures to be taken by CITES to ensure compliance with national sustainable forest management standards:

    - Review of Significant Trade, when applied for timber species, should look hard at coherence between CITES NDF requirements and forest management standards and implementation.

- Range countries require assistance in determining NDFs for CITES-listed timber species. International communities are providing aid to determine NDFs for mahogany, but more technical and financial assistance is needed for conducting NDFs for all the other listed timber species. IUCN has been conducting workshops to improve the understanding of the technical requirements for NDFs. More such workshops should be conducted in various countries and regions.

- The CITES Secretariat should assess whether all range countries have mandated the preparation of forest management plans and forest inventories as the basis for the annual harvesting volumes for CITES tree species. This assessment can be carried out through consultancies by independent organizations, including NGOs, and should be presented to the Standing Committee for oversight of progress to reduce the impact of illegal logging.

National regulation

- More emphasis should be given to CITES requirements to consider legal acquisition in permitting decisions.

- Individual Parties exporting CITES-listed tree products should consider development and adoption of a checklist of protocols for forest product harvest trade for MAs, which could be used before issuance of CITES permits and certificates, in order to ensure that specimens for export are obtained in accordance with national laws for the protection of fauna and flora. This assumes that countries themselves have provisions to curb illegal extract, for example, low-impact operating procedures and schemes for sustainable management and trade.

Identification

- Parties should, in future, propose species for listing that include 'look-alikes', owing to enforcement problems with identification. Listing considerations should be carried out with care and include consultation with all stakeholders and range States. Since timber is often in commerce under a trade name, identification problems can relate just as much to names as to appearance. Such implementation problems should be avoided by thorough investigation before listing proposals are submitted.

Choice of Appendix

- Appendix I should only be used as a tool to curb illegal logging if it is felt, after comprehensive analysis and study, that it will remove the incentive to trade internationally in the tree species in question. Any possible negative side-effects of such a listing should be taken into account and the listing should be used as a last resort.

- CITES Appendix II should be considered the most important tool CITES has at its disposal to help combat illegal logging and should be employed where other measures are failing and where a species-focused approach might have significant impact.

- If Parties use Appendix III to attempt to control illegal logging, all range States should place greater emphasis on implementing Appendix-III provisions correctly and on linking the trade to domestic regulations on legal harvesting, sustainable forest management and chains of custody, to ensure trade can be monitored. In this way, importing countries could automatically stop any shipment of an Appendix-III specimen without a CITES permit, confident that the shipment was illegal.

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ANNEX 1: Tree species listed in the CITES Appendices, 2006

	Scientific name	Common name	Distribution	Listed	Notes (uses)
App. I	*Abies guatemalensis*	Guatemalan Fir	Central America	1975	(timber) NT
	Araucaria araucana	Monkey Puzzle Tree	Argentina, Chile	1975	Originally in Appendix II, Chilean pop'n to App. I in 1979 & others in 2000. (timber; horticult.)
	Dalbergia nigra	Brazilian Rosewood	Brazil	1992	(timber)
	Fitzroya cupressoides	Alerce	Argentina, Chile	1975	(timber) T; Chilean coastal pop'n to App. II in 1983 and back to App. I in 1987
	Pilgerodendron uviferum	Parlatore's Podocarp	Argentina, Chile	1975	NT
	Podocarpus parlatorei	Parlatore's Podocarp	Argentina, Bolivia, Peru	1974	
App. II	*Aquilaria malaccensis.* *Aquilaria* spp.[#1] and *Gyrinops* spp.[#1] (from 12 January 2005)	Agarwood	India, Bhutan, Myanmar, Bangladesh, Malaysia, Indonesia and Philippines (*A. malaccensis*)	1995 & 2005	(aromatic, medicinal, religious uses); traded predominantly as wood chips, wood pieces, powder/dust and [distilled] oil)
	Caryocar costaricense[#1]	Aji	Costa Rica, Panama	1975	(timber)
	Gonystylus spp.[#1]	ramin	Indonesia, Brunei, Malaysia, Singapore, Papua New Guinea & Solomon Is.	2002	Indonesia = 27 spp. (timber). Transfer to App. II effective January 2005.
	Guaiacum spp.[#2]	Lignum-vitae	Caribbean, Columbia, Venezuela, C. America..	2002	(timber) T; *G. sanctum* listed since 1975 & *G. officinale* since 1992
	Oreomunnea pterocarpa[#1]	Caribbean Walnut	Costa Rica	1975	(timber) NT Originally listed in App. I in 1975, transferred to App. II in 1992
	Pericopsis elata[#5]	Afrormosia	West Africa	1992	(timber)
	Platymiscum pleistachyum[#1]	Quira Macawood	Costa Rica	1975	(timber) Originally listed in App. 1; transferred to App. II in 1989
	Prunus africana[#1]	African Cherry; Stinkwood	Angola, Burundi, Cameroon, Ethiopia, Kenya, Madagascar, Mozambique, Rwanda, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zaire & Zambia	1995	(timber/medicinal)
	Pterocarpus santalinus[#7]	Red Sandalwood	India	1995	(timber/medicinal)
	Swietenia humilis[#1]	Mexican Mahogany	Central America	1975	(timber) NT
	Swietenia mahagoni[#5]	American Mahogany	Caribbean, USA	1992	(timber) NT
	Swietenia macrophylla[#6]	Big-leaf Mahogany	Americas	1995	(timber) also listed 1998; 1999; 2001; 2002 and 2003
	Taxus wallichiana[#10]	Himalayan Yew	Himalayan countries, Myanmar and Viet Nam	1995	(medicinal)
	T. cuspidata, fuana, sumatrana and *chinensis*[#10]	Asian yews	Asia	2005	(medicinal)
App. III	*Cedrela odorata*[#5]	West Indian Cedar	Central America, Caribbean & S. America (Argentina, Brazil, Colombia, Peru & Venezuela)	2001 2002	Listed by Peru (Peruvian pop'n) & Colombia (Colombian pop'n)
	Podocarpus neriifolius[#1]	Yellow Wood	Nepal, India, Indochina, Thailand, Malaysia, Indonesia, Papua New Guinea, Solomon Islands & Fiji.	1975	Listed by Nepal
	Dipteryx panamensis	Almendro	Costa Rica, Colombia, Panama	2003	Listed by Costa Rica
	Tetracentron sinense[#1]	Tetracentron	Bhutan, China, India, Myanmar & Nepal	1975	Listed by Nepal
	Magnolia liliifera[#1] var. *obovata*	Magnolita, Egg Magnolia	Cambodia, China, India, Indonesia, Nepal, Papua New Guinea, Thailand, Viet Nam		Listed by Nepal

Notes to Table Annex I:

T— some current trade; NT—no current trade

Interpretation of CITES plants annotations valid for Appendix I, II and III

In accordance with Article I, paragraph (b), sub-paragraph (iii), of the Convention, the symbol (#) followed by a number placed against the name of a species or higher taxon included in Appendix II or III designates parts or derivatives which are specified in relation thereto for the purposes of the Convention as follows:

#1 Designates all parts and derivatives, except:
a) seeds, spores and pollen (including pollinia);
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers; and
c) cut flowers of artificially propagated plants.

#2 Designates all parts and derivatives, except:
a) seeds and pollen;
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
c) cut flowers of artificially propagated plants; and
d) chemical derivatives and finished pharmaceutical products.

#3 Designates whole and sliced roots and parts of roots, excluding manufactured parts or derivatives such as powders, pills, extracts, tonics, teas and confectionery.

#4 Designates all parts and derivatives, except:
a) seeds, except those from Mexican cacti originating in Mexico, and pollen;
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
c) cut flowers of artificially propagated plants;
d) fruits and parts and derivatives thereof of naturalized or artificially propagated plants; and
e) separate stem joints (pads) and parts and derivatives thereof of naturalized or artificially propagated plants of the genus *Opuntia* subgenus *Opuntia*.

#5 Designates logs, sawn wood and veneer sheets.

#6 Designates logs, sawn wood, veneer sheets and plywood.

#7 Designates logs, wood-chips and unprocessed broken material.

#8 Designates all parts and derivatives, except:
seeds and pollen (including pollinia);
seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
cut flowers of artificially propagated plants; and
fruits and parts and derivatives thereof of artificially propagated plants of the genus *Vanilla*.

#10 Designates all parts and derivatives except:
seeds and pollen; and
finished pharmaceutical products.

ANNEX 2: CITES *Resolution Conf. 10.13 Implementation of the Convention for timber species* (N.B. now superceded by *Resolution Conf. 10.13 (Rev CoP13)*.)

RECOGNIZING that amendment proposals should contain the maximum amount of biological and trade information on the taxon concerned;

AWARE that such information is frequently available from international organizations that have expertise related to timber trade and/or forest management;

RECOGNIZING that parts and derivatives mentioned in the Interpretation of Appendices I and II and in the Interpretation of Appendix III should be clearly defined;

EMPHASIZING the need for Parties to adequately report on their annual trade in timber and to use agreed units of measurement;

RECOGNIZING that identification sheets suitable for inclusion in CITES Identification Manuals have not yet been published for any of the timber species currently included in the Appendices of the Convention;

AWARE that unambiguous identification of timber, by its nature, can be a complex procedure, requiring particular expertise;

RECOGNIZING also that the development of timber identification materials is essential for the effective implementation of the Convention and that the cost of production will be considerable;

NOTING that the approach that authorities of some countries have taken, whereby they meet with timber trade groups and enforcement officers and agree to use standard nomenclature for vernacular and corresponding scientific names of timber species, appears to be a useful one;

NOTING further that the objective of the Convention is to ensure the conservation of wild fauna and flora for this and future generations through the protection of certain species against over-exploitation through international trade;

NOTING also that the Convention can play a positive role in promoting the conservation of animals and plants, including timber species, through trade in accordance with the requirements of Articles III, IV and V of the Convention and through improving trade monitoring for evaluation of biological status and effective enforcement;

RECOGNIZING that commercial trade may be beneficial to the conservation of species and ecosystems when carried out at levels that are not detrimental to the survival of the species in question;

RECOGNIZING also that Parties have the right to take stricter domestic measures concerning any species listed in the Appendices;

AWARE that such measures can have effects unrelated to the conservation of listed species and could be taken for purposes not directly related to the purpose for which the species concerned were included in the CITES Appendices;
NOTING also that there are misconceptions that inclusion of a species in Appendix II or III represents a ban on trade in that species;

RECOGNIZING that such misconceptions can have negative impacts including the prohibition of or restriction on the use of CITES-listed timber species by architects, engineers, commercial businesses and others, and reduced use of such items by consumers;

ACKNOWLEDGING that education is an important tool in the effective implementation of the Convention;

NOTING that many internationally traded timber species, boreal, temperate and tropical, can be managed on a sustainable basis through the application of appropriate silvicultural techniques, but that for other timber species such knowledge is currently lacking;

NOTING that some timber species may be under threat because of detrimental levels of use and international trade;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

RECOMMENDS that:

Regarding international organizations

a) any Party that intends to present an amendment proposal for a timber species (irrespective of other agreed procedures) should consult with at least four different organizations listed in the table below [two from each of the two types (B and T)], to verify or request biological and trade data and should include any relevant information in the amendment proposal before this is sent to the Secretariat for distribution to the Parties;

Acronym	International organization	Data	
ATO	African Timber Organization		T
ATTO	Asian-Pacific Timber Trade Organization		T
CIFOR	Center for International Forestry Research	B	
FAO	Food and Agricultural Organization of the United Nations; Forestry Department	B	T
IBFRA	International Boreal Forest Research Association	B	
IHPA	The International Wood Products Association		T
ITTO	International Tropical Timber Organization	B	T
IUFRO	International Union for Forest Research Organizations	B	
IUCN	IUCN-The World Conservation Union	B	
SPT-TCA	Pro-tempore Secretariat of the Treaty for Amazonian Co-operation	B	
TRAFFIC	Trade Records Analysis of Flora and Fauna In Commerce	B	T
UCBD	Union pour le Commerce des Bois Durs dans l'U.E. (European Hardwood Federation)		T
UNEP-WCMC	UNEP World Conservation Monitoring Centre	B	
WWF	World Wide Fund for Nature	B	

B = biological data; T = trade data

and

b) when any proposal is submitted to amend the CITES Appendices for timber species, for the implementation of paragraph i) of the second RESOLVES of *Resolution Conf. 9.24 (Rev. CoP12)*, the Secretariat should seek the views of ITTO, FAO and IUCN and present these to the Conference of the Parties;

Regarding parts and derivatives

c) the following definitions be applied with respect to annotations in the CITES Appendices:

i) *Logs*
All wood in the rough, whether or not stripped of bark or sapwood, or roughly squared, for processing, notably into sawn wood, pulpwood or veneer sheets (HS code 44.03);

ii) *Sawn wood*
Wood simply sawn lengthwise or produced by a profile-chipping process. Sawn wood normally exceeds 6 mm in thickness (HS code 44.06, HS code 44.07); and

iii) *Veneer sheets*
Thin layers or sheets of wood of uniform thickness, usually 6 mm or less, usually peeled or sliced, for use in making plywood, for veneering furniture, veneer containers, etc. (HS code 44.08); and

d) for the purpose of annotations in the Appendices for parts and derivatives of species traded as timber, definitions to be used should, to the extent possible, be based on the tariff classifications of the Harmonized System of the World Customs Organization;

Regarding amendment proposals for timber species

e) proposals for the inclusion of timber species in Appendix II or III indicate clearly which parts and derivatives should be regulated; and

f) where these parts and derivatives are not logs, sawn wood and veneer sheets, the proponent also propose the relevant amendment to *Resolution Conf. 12.3* if the procedures for extending the period of validity of, and/or changing the destination on, the export permit or re-export certificate should apply;

Regarding the definition of 'artificially propagated'

g) timber taken from trees grown in monospecific plantations be considered as being artificially propagated in accordance with the definition contained in *Resolution Conf. 11.11*;

Regarding improvement of public understanding of the role of the Convention in the conservation of timber species

h) Parties consider any possible deleterious conservation and trade impacts before they impose stricter domestic measures on trade in timber specimens of species included in Appendix II or III; and

i) Management Authorities work with governmental agencies (including local governments), non-governmental organizations, industry and the general public to develop and provide information on the objectives, provisions and implementation of the Convention to counter the misconception that the inclusion of species in the Appendices represents a ban on the trade in specimens of these species, and to disseminate the message that international trade and utilization of timber species included in Appendices II and III are generally permitted and can be beneficial; and

Regarding timber species of concern

j) the range States pay particular attention to internationally traded timber species within their territories for which the knowledge of the biological status and silvicultural requirements gives cause for concern.

ANNEX 3: CITES Resolution *Conf. 9.25 (Rev.) Inclusion of species in Appendix III*

RECOGNIZING that Article XVI, paragraph 1, provides Parties with the right to list species in Appendix III;

RECALLING that Article II, paragraph 3, provides for the inclusion of species in Appendix III by a Party only if it needs the cooperation of other Parties in the control of trade;

RECOGNIZING that, for a species with a natural distribution that goes beyond the territory of the Party requesting its inclusion in Appendix III and its immediate neighbours, such inclusion may not necessarily need to cover all range States;

NOTING that *Resolution Conf. 1.5*, adopted at the first meeting of the Conference of the Parties (Bern, 1976), recommends that all readily recognizable parts and derivatives of species included in Appendix III be covered;

NOTING that *Resolution Conf. 5.22*, adopted at the fifth meeting of the Conference of the Parties (Buenos Aires, 1985), recommends criteria for the inclusion of species in Appendix III;

NOTING that *Resolution Conf. 7.15*, adopted at the seventh meeting of the Conference of the Parties (Lausanne, 1989), encourages Parties to declare inclusion of species in Appendix III or withdrawals therefrom at meetings of the Conference of the Parties;

NOTING that *Resolution Conf. 8.23*, adopted at the eighth meeting of the Conference of the Parties (Kyoto, 1992), recommends *inter alia* that, before submitting a species for inclusion in Appendix III, Parties request the advice of the Animals Committee or the Plants Committee regarding the trade status and biological status of that species;

AWARE that, at the moment, Appendix III contains species that occur rarely or not at all in international trade and for which the Convention is therefore not effective;

OBSERVING that many Parties are unwilling to take on the administrative burden of implementing the provisions of the Convention with regard to Appendix III;

BELIEVING that this unsatisfactory implementation arises because the Parties are not fully convinced of the effectiveness of Appendix III;

RECOGNIZING that *Resolution Conf. 1.5*, paragraph 5, is deficient in not addressing the need for adequate implementation of domestic legislation;

RECALLING the wish of the Conference of the Parties, expressed at its eighth meeting (Kyoto, 1992), to reduce the number of its Resolutions;

CONSIDERING that for the effective implementation of the Convention with regard to Appendix III it is desirable to give clear guidelines for including species in Appendix III that reflect the aims of the Convention expressed in its Preamble;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

RECOMMENDS that, when considering the inclusion of a species in Appendix III, a Party:

a) ensure that:

   i) the species is native to its country;

   ii) its national regulations are adequate to prevent or restrict exploitation and to control trade, for the conservation of the species, and include penalties for illegal taking, trade or possession and provisions for confiscation;

iii) its national enforcement measures are adequate to implement these regulations; and

iv) for species that are traded for their timber, consideration is given to including only that geographically separate population of the species for which the inclusion would best achieve the aims of the Convention and its effective implementation, particularly with regard to the conservation of the species in the country requesting its inclusion in Appendix III;

b) determine that, notwithstanding these regulations and measures, there are indications that the cooperation of the Parties is needed to control illegal trade;

c) inform the Management Authorities of other range States, the known major importing countries, the Secretariat and the Animals Committee or the Plants Committee that it is considering the inclusion of the species in Appendix III and seek their opinion on the potential effects of such inclusion; and

d) after due consultation, and having satisfied itself that the biological status and trade status of the species justify the action, submit to the Secretariat the name of the species it wishes to include in Appendix III;

RECOMMENDS further that, unless there is an urgent need for inclusion, a Party intending to include a species in or delete a species from Appendix III inform the Secretariat of its intention at least three months before a meeting of the Conference of the Parties, in order that the Parties are informed of the amendment in time to ensure that it enters into force on the same date as amendments to Appendices I and II adopted at the meeting;

DIRECTS the Secretariat:

a) to publish the changed Appendices I, II and III together after each meeting of the Conference of the Parties, or at other times when warranted; and

b) before communicating to Parties the inclusion of a species in Appendix III, to ensure that copies of all relevant national laws and regulations have been received from the Party concerned in accordance with paragraph 4 of Article XVI;

REQUESTS the Animals Committee and the Plants Committee to assist Parties if necessary in reviewing the status of species in Appendix III, subject to available funding;

URGES Parties having included species in Appendix III to periodically review the status of these species and, taking into account these guidelines and any recommendations of the Animals and Plants Committees, to consider the necessity to maintain them in that Appendix; and

REPEALS the Resolutions, or parts thereof, listed hereunder:

a) *Resolution Conf. 1.5 (*Bern, 1976)—*Recommendations Concerning the Interpretation and Implementation of Certain Provisions of the Convention*—paragraphs 3, 4 and 5;

b) *Resolution Conf. 5.22* (Buenos Aires, 1985)—*Criteria for the Inclusion of Species in Appendix III*—paragraphs a) and b) under 'RECOMMENDS' and the paragraph under 'REQUESTS';

c) *Resolution Conf. 7.15* (Lausanne, 1989)—*Amendments to Appendix III*; and

d) *Resolution Conf. 8.23* (Kyoto, 1992)—*Review of Appendix III*

ANNEX 4: *Resolution Conf. 12.8 (Rev. CoP13) Review of Significant Trade in specimens of Appendix-II species*

RECALLING that Article IV, paragraph 2 (a), of the Convention requires, as a condition for granting an export permit, that a Scientific Authority of the State of export has advised that the export will not be detrimental to the survival of the species concerned;

RECALLING that Article IV, paragraph 3, requires a Scientific Authority of each Party to monitor exports of Appendix-II species and to advise the Management Authority of suitable measures to be taken to limit such exports in order to maintain such species throughout their range at a level consistent with their role in the ecosystem;

RECALLING also that Article IV, paragraph 6 (a), requires, as a condition for granting a certificate of introduction from the sea, that a Scientific Authority of the State of introduction from the sea has advised that the introduction will not be detrimental to the survival of the species concerned;

CONCERNED that some States permitting export of Appendix-II species are not effectively implementing Article IV, paragraphs 2 (a), 3 and 6 (a), and that, in such cases, measures necessary to ensure that the export of an Appendix-II species takes place at a level that will not be detrimental to the survival of that species, such as population assessments and monitoring programmes, are not being undertaken, and that information on the biological status of many species is frequently not available;

RECALLING that the proper implementation of Article IV is essential for the conservation and sustainable use of Appendix-II species;

NOTING the important benefits of the review of trade in specimens of Appendix-II species by the Animals and Plants Committees as set out in *Resolution Conf. 8.9 (Rev.)*, adopted by the Conference of the Parties at its eighth meeting (Kyoto, 1992) and amended at its 11th meeting (Gigiri, 2000), referred to as the Review of the Significant Trade, and the need to clarify further and simplify the procedure to be followed;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

Regarding conduct of the Review of Significant Trade

DIRECTS the Animals and Plants Committees, in cooperation with the Secretariat and experts, and in consultation with range States, to review the biological, trade and other relevant information on Appendix-II species subject to significant levels of trade, to identify problems and solutions concerning the implementation of Article IV, paragraphs 2 (a), 3 and 6 (a), in accordance with the following procedure:

Selection of species to be reviewed

a) the Secretariat shall request the UNEP World Conservation Monitoring Centre to produce, within 90 days after each meeting of the Conference of the Parties, a summary from the CITES database of annual report statistics showing the recorded net level of exports1 for Appendix-II species over the five most recent years;

b) on the basis of recorded trade levels and information available to the Animals or Plants Committee, the Secretariat, Parties or other relevant experts, species of priority concern shall be selected for review by the Animals or Plants Committee (whether or not such species have been the subject of a previous review);

c) in exceptional cases where new information indicates an urgent concern, the Animals or Plants Committee may add a species to the list of species of concern at another stage;

Consultation with the range States concerning implementation of Article IV

d) the Secretariat shall, within 30 days after the meeting of the Animals or Plants Committee at which species are selected, notify range States of the species selected, providing an explanation for this selection and requesting comments regarding possible problems of implementing Article IV identified by the Committee. Range States shall be given 60 days to respond;

e) the Secretariat shall report to the Animals or Plants Committee on the response of the range States concerned, including any other pertinent information;

f) when the Animals or Plants Committee, having reviewed the available information, is satisfied that Article IV, paragraph 2 (a), 3 or 6 (a), is correctly implemented, the species shall be eliminated from the review with respect to the State concerned. In that event, the Secretariat shall notify the Parties accordingly within 60 days;

Compilation of information and preliminary categorization

g) in the event that the species is not eliminated from the review in accordance with paragraph f) above, the Secretariat shall proceed with the compilation of information regarding the species;

h) when necessary, consultants shall be engaged by the Secretariat to compile information about the biology and management of and trade in the species and shall contact the range States or relevant experts to obtain information for inclusion in the compilation;

i) the Secretariat or consultants, as appropriate, shall summarize their conclusions about the effects of international trade on the selected species, the basis on which such conclusions are made and problems concerning the implementation of Article IV, and shall provisionally divide the selected species into three categories:

   i) 'species of urgent concern' shall include species for which the available information indicates that the provisions of Article IV, paragraph 2 (a), 3 or 6 (a), are not being implemented;

   ii) 'species of possible concern' shall include species for which it is not clear whether or not these provisions are being implemented; and

   iii) 'species of least concern' shall include species for which the available information appears to indicate that these provisions are being met;

j) before the report of the Secretariat, or consultant, is considered by the Animals or Plants Committee, the Secretariat shall transmit it to the relevant range States, seeking comments and, where appropriate, additional information. Range States shall be given 60 days to respond;

Review of information and confirming of categorization by the Animals or Plants Committee

k) the Animals or Plants Committee shall review the report of the Secretariat or the consultants and the responses received from the States concerned and, if appropriate, revise the preliminary categorization proposed;

l) species of least concern shall be eliminated from the review. Problems identified in the course of the review that are not related to the implementation of Article IV, paragraph 2 (a), 3 or 6 (a), shall be addressed by the Secretariat in accordance with other provisions of the Convention and relevant Resolutions;

Formulation of recommendations and their transmission to the range States

m) the Animals or Plants Committee shall, in consultation with the Secretariat, formulate recommendations for the remaining species. These recommendations shall be directed to the range States concerned;

n) for species of urgent concern, these recommendations should propose specific actions to address problems related to the implementation of Article IV, paragraph 2 (a), 3 or 6 (a). Such recommendations should differentiate between short-term and long-term actions, and may include, for example:

i) the establishment of administrative procedures, cautious export quotas or temporary restrictions on exports of the species concerned;

ii) the application of adaptive management procedures to ensure that further decisions about the harvesting and management of the species concerned will be based on the monitoring of the impact of previous harvesting and other factors; or

iii) the conducting of taxon- and country-specific status assessments, field studies or evaluation of threats to populations or other relevant factors to provide the basis for a Scientific Authority's non-detriment finding, as required under the provisions of Article IV, paragraph 2 (a) or 6 (a).

Deadlines for implementation of these recommendations should be determined by the Animals or Plants Committee. They must be appropriate to the nature of the action to be undertaken, and should normally be not less than 90 days but not more than two years after the date of transmission to the State concerned;

o) for species of possible concern, these recommendations should specify the information required to enable the Animals or Plants Committee to determine whether the species should be categorized as either of urgent concern or of least concern. They should also specify interim measures where appropriate for the regulation of trade. Such recommendations should differentiate between short-term and long-term actions, and may include, for example:

i) the conducting of taxon and country-specific status assessments, field studies or evaluation of threats to populations or other relevant factors; or

ii) the establishment of cautious export quotas for the species concerned as an interim measure.

Deadlines for implementation of these recommendations should be determined by the Animals or Plants Committee. They must be appropriate to the nature of the action to be undertaken, and should normally be not less than 90 days but not more than two years after the date of transmission to the State concerned;

p) these recommendations shall be transmitted to the range States concerned by the Secretariat;

Measures to be taken regarding the implementation of recommendations

q) the Secretariat shall, in consultation with the Chairman of the Animals or Plants Committee, determine whether the recommendations referred to above have been implemented and report to the Standing Committee accordingly;

r) where the recommendations have been met, the Secretariat shall, following consultation with the Chairman of the Standing Committee, notify the Parties that the species was removed from the process;

s) when the Secretariat, having consulted with the Chairman of the Animals or Plants Committee, is not satisfied that a range State has implemented the recommendations made by the Animals or Plants Committee in accordance with paragraph n) or o), it should recommend to the Standing Committee appropriate action, which may include, as a last resort, a suspension of trade in the affected species with that State. On the basis of the report of the Secretariat, the Standing Committee shall decide on appropriate action and make recommendations to the State concerned, or to all Parties;

t) the Secretariat shall notify the Parties of any recommendations or actions taken by the Standing Committee;

u) a recommendation to suspend trade in the affected species with the State concerned should be withdrawn only when that State demonstrates to the satisfaction of the Standing Committee, through the Secretariat, compliance with Article IV, paragraph 2 (a), 3 or 6 (a); and

v) the Standing Committee, in consultation with the Secretariat and the Chairman of the Animals or Plants Committee, shall review recommendations to suspend trade that have been in place for longer than two years and, if appropriate, take measures to address the situation;

Regarding support to the range States

URGES the Parties and all organizations interested in the conservation and sustainable use of wildlife to provide the necessary financial support or technical assistance to those States in need of such assistance to ensure that wild populations of species of fauna and flora subject to significant international trade are not subject to trade that is detrimental to their survival. Examples of such measures could include:

a) training of conservation staff in the range States;

b) provision of information and guidance to persons and organizations involved in the production and export of specimens of the species concerned;

c) facilitation of information exchange among range States; and

d) provision of technical equipment and support; and

DIRECTS the Secretariat to assist with identification and communication of funding needs in the range States and with identification of potential sources of such funding;

Regarding monitoring, reporting and reintroduction of species into the review process

DIRECTS the Secretariat, for the purpose of monitoring and facilitating the implementation of this Resolution and the relevant paragraphs of Article IV:

a) to report at each meeting of the Animals or Plants Committee on the implementation by the range States concerned of the recommendations made by the Committee; and

b) to maintain a register of species that are included in the review process set out in this Resolution and a record of progress with the implementation of recommendations; and

Regarding coordination of field studies

DIRECTS the Secretariat, where appropriate, in consultation with the Chairman of the Animals or Plants Committee, to contract IUCN or other appropriate experts to coordinate, in collaboration with UNEP-WCMC, the conduct of the field studies required for Appendix-II species identified as being subject to significant levels of trade, and to raise the funds necessary for such studies; and

REPEALS *Resolution Conf. 8.9 (Rev.)* (Kyoto, 1992, as amended at Gigiri, 2000)—*Trade in specimens of Appendix-II species taken from the wild*.

TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. It has offices covering most parts of the world and works in close co-operation with the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

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